



AGENDA
CITY OF GLENWOOD SPRINGS
REGULAR CITY COUNCIL MEETING
FEBRUARY 3, 2022
ZOOM
6:15 PM

The agenda is subject to *change, including the addition of items 24 hours in advance or the deletion of items at any time.*
The order and times of agenda items listed are approximate and intended as a guideline for the City Council.

ATTENTION: To ensure your written comments are included in the City Council packet, public comments must be received by 4 p.m. on the day before City Council meetings. Comments may be submitted to ryan.muse@cogs.us.
Written comments may be submitted after this deadline and will be shared via email to City Council but are not guaranteed to make it into the meeting packet. Submit comments at any time directly to City Council via email at citycouncil@cogs.us.

ZOOM INSTRUCTIONS

1. When: Feb 3, 2022 08:30 AM Mountain Time (US and Canada)
Topic: 2022/02/03 Regular Council Work Session - AM
Please click the link below to join the webinar:
<https://us02web.zoom.us/j/81640971564>
Or One tap mobile :
US: +12532158782,,81640971564# or +13462487799,,81640971564#
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Dial(for higher quality, dial a number based on your current location):
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Webinar ID: 816 4097 1564
International numbers available: <https://us02web.zoom.us/j/81640971564>

MORNING WORK SESSION

8:30	2. Agenda Review/Future Agenda	Information/Discussion
8:45	3. Downtown Design Standards and Retail Uses	Information/Discussion
10:15	4. Tourism Management Board Interview	Information/Discussion

ZOOM INSTRUCTIONS

5. You are invited to a Zoom webinar.
When: Feb 3, 2022 3:30 PM Mountain Time (US and Canada)
Topic: 2022/02/03 Regular Council Meeting
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<https://us02web.zoom.us/j/84702372849>
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WORK SESSION

3:30	6. Potential Charter Changes	Information/Discussion
4:15	7. Pedestrian and Bicycle Improvements Plan (MOVE Study)	Information/Discussion
4:45	8. Youth Mental Health	Information/Discussion

REGULAR SESSION

6:15	9. Roll Call	
	10. Pledge of Allegiance	
	11. Agenda Changes & Conflicts	
6:20	12. Citizens Appearing Before Council (for items not on the Agenda-comments limited to 3 minutes)	
6:30	13. Council Comments	
6:40	14. Consent Agenda	Discussion and/or Action
	A. January 19 Special Council Meeting Minutes	
	B. January 20 Council Meeting Minutes	
	C. Ordinance 2022-03; Change the Name of the Tourism Promotion Board to the Tourism Management Board, Second Reading	
	D. Change Order Approval for Roaring Fork Pump Station Pipeline Design Changes	
	E. Fire Truck Request for Proposals Award	

ACTIONS AND/OR PRESENTATIONS

6:40	15. Tourism Management Board Appointments	Discussion and/or Action
6:45	16. Arts and Culture Board Appointments	Discussion and/or Action
6:50	17. Housing Commission Appointments	Discussion and/or Action
6:55	18. Historic Preservation Commission Appointments	Discussion and/or Action
7:00	19. Transportation Commission Appointments	Discussion and/or Action
7:05	20. Airport Commission Appointment	Discussion and/or Action
7:10	21. River Commission Appointments	Discussion and/or Action
7:15	22. Planning Item 70-21 - Consideration of a Right-of-Way Encroachment License for drainage features in Grand Avenue.	Discussion and/or Action
7:20	23. Colorado Animal Rescue	Discussion and/or Action
7:25	24. Youth Mental Health	Discussion and/or Action
7:55	25. 6th Street Design and Grant Funding	Discussion and/or Action
8:10	26. Ordinance 2022-05; Amending Sections in Title 090 Public Lands	Discussion and/or Action
8:20	27. Resolution 2022-07 Accepting Grant from CDOT Aeronautical for Fueling Systems	Discussion and/or Action
8:30	28. Resolution 2022-08; Accepting Grant from CDOT for Airport Runway	Discussion and/or Action
8:40	29. Report from City Administration	
	A. City Manager	
	B. City Attorney	
	C. Correspondence Incoming/Outgoing	
	30. Adjournment	

Work Session/Agenda Planning through April of 2023

City Council Meeting	Work Session Item	Agenda Item
November 4, 2021	Airport Commission BOCC Joint Meeting and Dinner (5-6)	BLD Planning Item Budget Approval Black Hills Energy Presentation Mountain Bike Trails Fare Free on RFTA
November 18, 2021	TDM/Parking Management – Public Input (3-4) Glenwood Springs Association of Realtors (Housing) Mitchel Cooper Water System	Code of Conduct Spring Cleanup Blake Avenue
December 2, 2021 (Chanukah)	Board and Commission Discussion Pedestrian connections, (MOVE STUDY) 2021 Building Codes	Youth Mental Health Paid Parking Decision
December 16, 2021	Parks and Recreation Commission (RFP for South Canyon) Sayre Park Future Phases Housing Commission	Direction on RFP for South Canyon Pedestrian connections, (MOVE STUDY) Approval Decision
January 6, 2022	CLEER/GCE Update (45 Minutes) Code Enforcement Philosophy (15 Minutes)	CLEER Contract on Consent Pricing package for Downtown Parking (if approved earlier)

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January 20, 2022	Comp Plan Check In CORA Conversation with Post Independent (4 -5) BRT/local bus optimization (MOVE STUDY) (45 Minutes)	BRT/local bus optimization (MOVE STUDY) (45 Minutes) Vehicular traffic optimization decision
February 3, 2022	Charter Review/Elected Mayor Council Compensation MOVE Study Ped and Cycling Improvements	BRT/local bus optimization (MOVE STUDY) decision 2021 Building Codes
February 17, 2022	Arts and Culture Board Long Term Cemetery Planning	MOVE Study Ped and Cycling Improvements
March 3, 2022	River Commission Water Use Reduction Solutions/Incentives Lone Pine Property	
March 17, 2022 (Purim ends in the evening of March 17)	Financial Advisory Board Encampment Cleanup/Solutions Transient impacts to downtown/solutions	
April 7, 2022	Ad Hoc Committee for Affordable Housing Recommendation Planning Commission	
April 21, 2022 (Passover is 4/15-4/23 – Mayor Holiday)	Airport Commission Vale Board Dog Park	Ad Hoc Committee for Affordable Housing Recommendation

	Dog Leash Enforcement Vehicular traffic optimization	
May 5, 2022	Art Center/Performing Arts Center Special Events	
May 19, 2022	Tourism Board North Landing	
June 2, 2022	Historic Preservation Commission Cardiff Schoolhouse Future	
June 16, 2022	RFTA Construction Fill opportunities- Drive-In Theater, Outdoor Amphitheater, Sledding Hill	
July 7, 2022	Downtown Development Authority	
July 21, 2022	RICD Project Confluence (Confluence Park)	
August 4, 2022	Budget Only	
August 18, 2022	Budget Only	
September 1, 2022	Budget Only	
September 15, 2022	Budget Only	
October 6, 2022	Transportation Commission	Budget Hearing
October 20, 2022		Budget Approval
November 3, 2022	River Commission	
November 17, 2022		
December 1, 2022	Housing Commission	
December 15, 2022		

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January 5, 2023	Planning Commission	Comp Plan Adoption
January 19, 2023		
February 2, 2023	Arts and Culture Board	
February 16, 2023		
March 2, 2023	Financial Advisory Board	
March 16, 2023		
April 6, 2023	Airport Commission Vale Board	

Items to Schedule:

BRT- Adoption of Both Preferred Alternatives or a Single Alternative

Traffic Report and Recommendations * Includes recommendation to go to North - South couplet on 8th and 9th



City Council
STAFF REPORT
City of Glenwood Springs
February 3, 2022

Agenda Item: Downtown Design Standards and Retail Uses

Action Requested: Staff is seeking direction from Council on the proposed code changes prior to bringing the item to a City Council public hearing.

Department: Economic and Community Development

Strategic Goals: Generate Sustainable Economic Development
Protect and Preserve our Quality of Life

Background Info: Planning and Zoning Commission held a work session to discuss municipal code retail standards in July 2021. The Commission discussed building design and orientation, lot coverage, parking lot design and property use. The proposed amendments to the code for section 070.040.090 Nonresidential and Mixed-Use Site and Building Design, originated from that discussion. Staff took direction from Planning and Zoning Commission at the work session and subsequent October 26, 2021, and December 14, 2021 meeting to further refine the suggested standards. Meeting minutes have been included as attachments to this report.

The proposed amendments include minor edits to design standards as well as the creation of a Business District Overlay Zone that provides standards for the orientation and location of parking lots and standards for percentage of tax generating retail uses on the ground floor.

Issues: **Business District Overlay Zone**
The purpose for which this District is created is to enhance the pedestrian oriented business and service character in the central core to support an active, vibrant street life.

The overlay district would include the following standards in addition to the base layer zoning standards:

1. When a non-residential building is proposed on a vacant lot within the downtown core, a minimum of 75% of the gross floor area on the first floor shall be uses that generate sales and/or lodging revenues for the city.
2. When a non-residential building within the downtown core is demolished, 75% of the first floor of the new building shall be uses that generate sales and/or lodging revenues for the city.
3. 100% of off-street surface parking is required to occur behind the rear wall of the primary building.
4. Parking Structures proposed within the overlay zone are exempted from these standards and shall be processed according to the Special Use Permit process per Section 070.030.20 Table of allowed uses, and Section [070.060.050\(e\)](#) Development Permits.

A development scenario graphic has been included as an attachment to this report to illustrate when overlay requirements are triggered based on existing conditions and the type of proposed development.

Staff believes the most efficient way to incorporate these standards into the code is through the creation of a new overlay district. Overlay zoning is a regulatory tool that creates a special zoning district, placed over an existing base zone, which identifies special provisions in addition to those in

the underlying base zone. Staff proposes implementing a Business District Overlay Zone to encompass the desired standards.

The proposed boundaries for the overlay district follow the Downtown Design Standards Boundary which is shown on a map included as an attachment to this report.

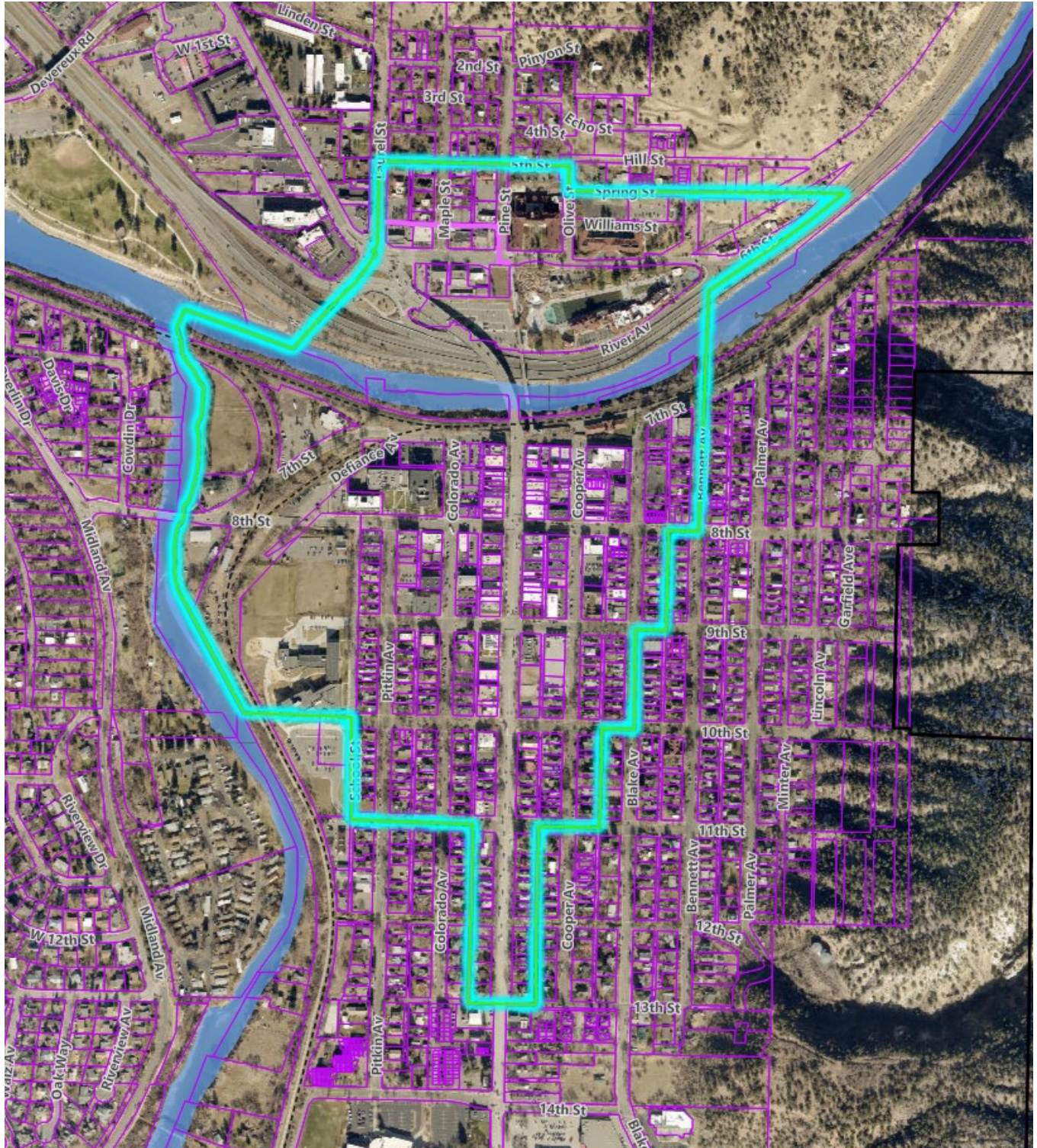
During discussions with Planning and Zoning Commission that included expanding the overlay boundary to include additional property, the Assistant City Attorney raised a question on impacts to city owned property on 7th and 8th street known as Vogelaar Park and the old wastewater treatment area. Staff has identified Vogelaar Park as an opportunity for affordable housing and possible mixed use project and these regulations could have substantial impacts to that development.

Staff Recommendation: Staff is only seeking direction from Council on the proposal and would bring any recommendations back for an additional public hearing on March 2, 2022.



City of Glenwood Springs

Proposed Business Overlay District



Proposed Business Overlay Boundary



75% Ground Floor Requirement Scenarios

Development Scenario	Existing Condition				
	Residential Building	Non-Residential Building	Vacant Lot	Parking Structure	Park
New Residential Building	X	O	X	X	X
New Non Residential Building	X	O	O	O	O
New Park	X	If park includes buildings	If park includes buildings	If park includes buildings	N/A
New Parking Structure	EXEMPT	EXEMPT	EXEMPT	EXEMPT	EXEMPT
Change of Use, Same Building	X	X	N/A	N/A	N/A

If an existing residential building is demolished, and a new building is proposed (residential or non-residential), the standards **DO NOT** apply.

If a residential building is proposed on a vacant lot, the standards **DO NOT** apply.

If a non-residential building is proposed on a Vacant Lot, the standards **DO** apply.

If an existing non residential building is demolished, and a new building is proposed (residential or non-residential), the standards **DO** apply.

If a vacant lot is proposed to be a park with a bathroom, the standards **DO** apply.

070.040.090 Nonresidential and Mixed-Use Site and Building Design.

- (a) *Purpose.* This Section is intended to promote high-quality building design and is intended to:
- (1) Protect and enhance the visual interest, character, and quality of nonresidential and mixed-use areas;
 - (2) Ensure compatibility between residential neighborhoods and adjacent commercial and mixed-use areas;
 - (3) Mitigate negative impacts created by the scale and bulk of large buildings;
 - (4) Promote an environment that is friendly toward multiple modes of transportation and accommodates varying ages and abilities; and
 - (5) Protect and enhance property values and encourage further investment and reinvestment.
- (b) *Applicability.*
- (1) *General Applicability.* This Section shall apply to the following:
 - a. Development of any structure that will contain a nonresidential use or a mix of nonresidential and residential uses; and
 - b. An addition or renovation to an existing structure that will contain a nonresidential use where the total gross floor area of the proposed addition is fifty (50) percent or more than that of the total gross floor area of the existing structure before addition or renovation. In cases where modifications are subject to these standards, only the modification shall be subject to compliance with this Section. For purposes of this standard, "modifications" shall not include routine maintenance and repair of a building, changes to signage, or general repairs to a surface parking area, changes to landscaping, or other features on the parcel. The Director shall determine if a modification shall be subject to these standards.
 - (2) *Exemptions.* This Section shall not apply to the following:
 - a. An addition or renovation project to an existing structure that will contain a nonresidential use where the total gross floor area of the proposed addition is less than fifty (50) percent of the total gross floor area of the existing structure before addition or renovation; and
 - b. Properties subject to the Glenwood Meadows Annexation and Development Agreement.
 - (3) *Special Review Uses.* All nonresidential special review uses located within the zone districts enumerated in Article 070.030: Use Regulations, shall comply with this Section 070.040.090, in addition to any special review use performance standards of the applicable zone district, and the general special review approval criteria in Subsection 070.060.050(e)(3)e.2.
 - (4) *Planned Unit Developments.*
 - a. Development of a nonresidential or mixed-use structure within any new Planned Unit Development established after the effective date of this Code shall be subject to this Section, unless alternative nonresidential/mixed-use site and building design standards are adopted as part of the PUD approval that, in the determination of the Director, are at least equal to the standards set forth in this Section.
 - b. Development of a residential structure within an existing Planned Unit Development established prior to the effective date of this Code is exempt from this Section.
- (c) *Administration.*
- (1) *Site/Architectural Plan Review Process.*

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- a. Review for compliance with these standards shall occur at the time of site/architectural plan review. Where site/architectural plan review is not required, review for compliance with these standards shall occur prior to issuance of a building permit.
 - b. Interpretations as to applicability or design requirements contained within this Section shall be the responsibility of the Director. Appeals of the Director's interpretations shall be heard according to the process set forth in Subsection 070.060.070(c), Appeals.

(2) *Alternative Equivalent Compliance.*

- a. *Purpose and Scope.* To encourage creative and unique design, "alternative equivalent compliance" allows development to occur in a manner that meets the intent of this Section, yet through an alternative design that does not strictly adhere to the Section's standards. This is not a general waiver of regulations. Rather, this authorizes a site-specific plan that is equal to or better than the strict application of the standard.
- b. *Applicability.* The alternative equivalent compliance procedure is available only for the standards in Section 070.040.090, Nonresidential and Mixed-Use Site and Building Design.
- c. *Alternative Equivalent Compliance Meeting Required.* An applicant proposing alternative equivalent compliance shall request and attend an alternative equivalent compliance meeting prior to submitting application materials for the applicable permit(s), to determine the preliminary response from the Director. Based on the response, the application shall include sufficient explanation and justification, in both written and graphic form, for the requested alternative compliance. The Director may require that the applicant provide additional drawings and/or material samples in order to better understand the need for the proposed alternative.
- d. *Decision-Making Responsibility.* Final approval of any proposed alternative compliance shall be the responsibility of the decision-making body responsible for deciding upon the application. Administratively approved projects proposing alternative compliance shall receive written approval of the alternative compliance from the Director.
- e. *Criteria.* Alternative equivalent compliance may be approved if the applicant demonstrates that following criteria have been met by the proposed alternative:
 - 1. Achieves the intent of the subject standard to the same or better degree than the subject standard;
 - 2. Advances the goals and policies of this Code to the same or better degree than the subject standard;
 - 3. Results in benefits to the community that are equivalent to or exceed benefits associated with the subject standard; and
 - 4. Imposes no greater impacts on adjacent properties than would occur through compliance with the specific requirements of this Code.
- f. *Effect of Approval.* Alternative equivalent compliance shall apply only to the specific site for which it is requested and shall not establish a precedent for approval of other requests.

(d) *Nonresidential and Mixed-Use Site Design Standards.*

(1) *General Intent.* The general intent of these site design standards is to:

- a. Ensure development relates to the physical characteristics of the site;
- b. Ensure building scale, orientation, and design relates to the surrounding uses and streets, and creates a cohesive visual identity and an attractive street scene;

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- c. Ensure site design for efficient pedestrian, bicycle, transit, and vehicular circulation patterns, and create a high-quality pedestrian environment;
 - d. Promote design environments built to "human scale," which means that buildings and objects are designed in size and shape to be optimized for pedestrian use;
 - e. Ensure delivery, trash, and loading facilities are located so as not to impede regular vehicular and pedestrian circulation and access routes; and
 - f. Ensure safe and efficient access between buildings and parking areas.
- (2) *Building Organization and Location.*
- a. *Building Orientation.* Buildings shall be sited parallel to public rights-of-way, to the maximum extent practicable.
 - b. *Climatic Conditions.* Local climatic conditions shall be considered when designing the orientation of new buildings. For example, north-facing facades are especially susceptible to winter snow and ice accumulation, and entries may require special treatment. Snow shed from roofs and snowpiling zones along streets shall be considered in arranging building elements on the site. Adequate solar access shall be considered when planning outdoor spaces, with shade and relief from glare provided by landscaping and overhead structures.
 - c. *Primary Entrance.*
 - 1. The primary entrances to a building shall be clearly identified.
 - 2. Buildings shall be oriented so that the principal building entrance faces the principal street or the street providing main access to the site.
 - 3. Where there are multiple buildings on a development parcel, at least one (1) building shall be oriented with an entrance facing the principal street or the street providing main access to the site.
 - 4. A corner site may orient its primary entry towards the corner for emphasis.
 - d. *Corner Lots.*
 - 1. *Scale and Massing.* Structures shall relate to the scale and massing of the buildings on each of the respective streets.
 - 2. *Building Entries.* When a structure is located on a corner lot, prominent entries shall be designed for both façades along the street edge or a single prominent entry shall be turned forty-five (45) degrees to face the corner. The primary entrance shall not be oriented to an interior court.
 - 3. *Courtyards.* When designing interior courtyards for buildings on corner lots, a minimal amount of street frontage shall be utilized. Courtyards shall not extend across the entire front of the property. Instead, a building shall be located flush with the property line on the street side.
 - 4. *Focal Points.*
 - i. To visually and physically anchor street intersections, buildings located on corner lots shall provide a focal point within a box formed from lines extending thirty (30) feet away from intersecting property lines. The focal point shall include one (1) or more of the following elements:

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- a. A primary building. In the case where a primary building includes drive-in and/or drive-through lanes, or gasoline pumping bays, the bays and/or queuing lanes shall not be located within the focal point.
 - b. Decorative architectural wall that is between thirty (30) and thirty-six (36) inches tall and complies with any other sight distance triangle restrictions in Subsection 070.020.190(c)(5), Sight Distance Triangle Requirement.
 - c. An architectural feature that is a minimum of the height of the building and a maximum of the height restriction for the zoning district (for example, a clock tower, spire, or other decorative roof form). These architectural features shall not contain signs or logos in any form.
 - d. Public art or sculpture within a landscaped area.
 - e. Fountains or other water feature within a landscaped area.
 - f. Public plaza or open space with landscaping, a low decorative wall to visually and physically separate the space from nearby traffic lanes, and other pedestrian-oriented amenities such as benches. The low decorative wall shall match or complement the building exterior in materials and colors.
- ii. Signs may be located within this focal point area provided that they are incorporated with another focal point element enumerated above. Signs shall comply with Section 070.040.110, Signs.
 - iii. For all focal point options, the sufficiency of proposed pedestrian-oriented amenities and landscaping shall be determined by the Director. All such features shall meet all applicable requirements of this Code, including but not limited to the general landscaping, building materials and color, and signage standards.
 - iv. The Alternative Equivalent Compliance process in Subsection 070.040.090(c)(2) may be used to consider alternatives from this requirement where strict compliance would result in unsafe or inadequate access, where the lot has less than fifty (50) linear feet of frontage, and/or where the site has unique topographical characteristics that make it infeasible to locate at least one (1) of the listed focal point elements. (Figure 040-24)

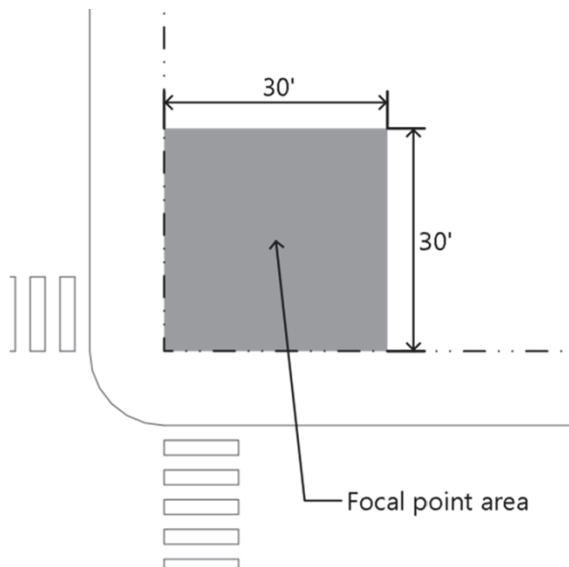


Figure 040-24: Focal Points

(3) *Surface Parking Configuration and Location.*

- a. In the mixed-use and other nonresidential districts, except in the Downtown Core, no more than thirty (30) percent of the total number of off-street parking spaces provided shall be located between the principal building and the front property line.
- b. No parking space shall be located closer than five (5) feet from a window or door of a habitable structure.
- c. No portion of a parking space, loading space, or maneuvering area shall be provided in any required landscape area, sidewalk, or other pedestrian or bicycle path.
- d. Surface parking shall not be located in a focal point area indicated in Figure 040-24.

(4) *Parking Structures.* The visual impacts of a parking structure shall be minimized through compliance with the standards in Subsection 070.040.060(h)(8), Parking Structures.

(5) *Refuse Containers.*

- a. *General.* Refuse containers shall comply with Article 100.010 of the Municipal Code.
- b. *Design and Materials.* Dumpsters and refuse containers shall be located within the footprint of a building, or shall meet the following standards:
 1. Dumpsters and refuse containers shall be located on a non-porous surface and within a four-sided, opaque enclosure that completely screens the dumpster or container and accumulated trash.
 2. Enclosures shall be a maximum of six (6) feet in height and shall have gated access for the collection of waste materials.
 3. Dumpster and refuse container enclosures shall incorporate compatible materials, colors, and architectural details that are compatible with the primary associated residential buildings.
 4. The use of chain-link fencing as screening is prohibited.

- c. *Location.* Enclosures shall be located to minimize visual and impacts and odors on the primary street frontage and neighboring properties and uses to the maximum extent feasible.
- (6) *Supplemental Site Design Standards: Downtown Core.* Development of any nonresidential or mixed-use structure in the Downtown Core shall comply with the general site layout and building design standards set forth above, plus the standards of this Subsection.
 - a. *Building Edge to Sidewalk.* A minimum of seventy-five (75) percent of the building edge shall be located adjacent to the sidewalk edge (e.g., zero setback). (Figure 040-25)

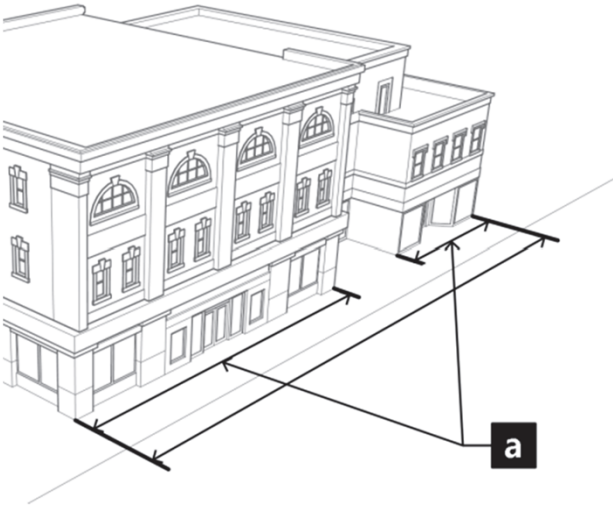


Figure 040-25: Zero Setback

- b. *Building Entrances.* The building entrance shall appear similar in scale and character to those used historically, both in the location of the building entrance and also in how the entrance area is distinguished from the rest of building by materials, size, projections or recessions, and other techniques.
- (e) *Nonresidential and Mixed-Use Building Design Standards.*
- (1) *General Intent.*
 - a. The general intent of these building design standards is to encourage creative design that:
 - 1. Preserves Glenwood Springs' small-town atmosphere;
 - 2. Enhances the visual and physical qualities of Glenwood Springs;
 - 3. Considers how the building relates to the site, neighboring properties, and the community;
 - 4. Provides strong pedestrian orientation by visually connecting the building's interior with the public exterior;
 - 5. Creates prominent, well-proportioned customer entrances;
 - 6. Uses high quality, long lasting materials with a proven ability to withstand Glenwood Springs' environment;
 - 7. Promote building designs and construction practices that are sustainable and adaptable to multiple uses for extended building lifecycles; and

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8. Incorporates a palette of colors that adds visual interest to the development parcel and that is compatible with the surrounding natural environment.
- b. The general intent of these building design standards is to discourage:
1. Buildings that are out of scale or have little physical or visual connection to the street, neighboring properties, or the community;
 2. Building elements, materials, and colors that are out of character with the community, that are inherently associated with brand identification, or that are designed to function as signs;
 3. Minimal or no physical pedestrian connections between the building and public street; and/or
 4. Large expanses of blank, flat wall surfaces.
- (2) *Building Elevations.*
- a. *Horizontal and Vertical Articulation Required.* No building elevation, regardless of exterior wall plane setback or the location of interior walls, shall exceed thirty (30) feet in length without incorporating at least three (3) of the following elements:
1. Projections, recessions, or reveals such as, but not limited to, columns, pilasters, cornices, and bays, and having a change of wall plane that is a minimum of twenty-four (24) inches in depth and that has the effect of casting shadows;
 2. Glazed windows and doors, if used to comply with this standard shall comprise not less than thirty (30) percent of the elevation of which they are a part. See also Subsection 070.040.090(e)(3), Windows, Doors, and Customer Entrances, for additional requirements;
 3. Change in texture and/or masonry pattern;
 4. Change in building, parapet, or roofline height. If used to comply with this standard, the minimum change in roofline shall be two (2) feet; and/or
 5. Awnings, canopies, or marquees extending at least four (4) feet beyond the building face.

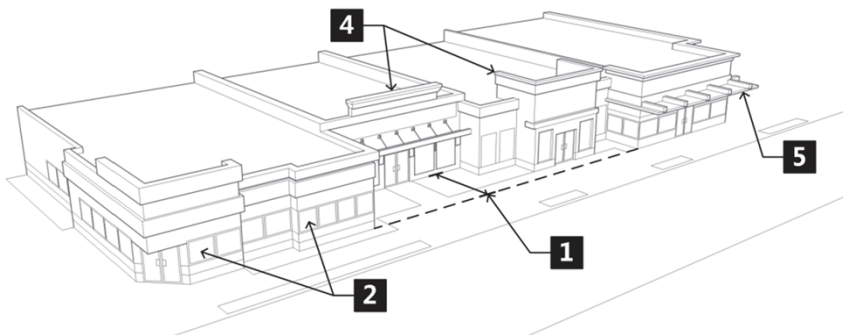


Figure 040-26: Horizontal and Vertical Articulation

Annotations correspond with paragraph numbers in the preceding text.

- b. *Alternative Designs.* An equivalent design that provides pedestrian interest by dividing the façade into horizontal and vertical planes and is in proportion to the height and width of the entire building may be approved through the Alternative Equivalent Compliance process. However, design elements used to fulfill this standard shall not consist solely of color variations.

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- c. *Building Design as Signage.* Building elevations and/or elements used to comply with these standards shall not function as signs. The incorporation of certain design elements that are unique or symbolic of a particular business shall be unobtrusive and secondary to the overall architectural design.
 - d. *Building Elevations Facing Public Rights-of-Way.* Building elevations that face public rights-of-way, parking lots, or adjacent residential land uses shall include glazed windows and doors as one (1) of the required elements enumerated in Paragraph a. above. See also Subsection 070.040.090(e)(3), Windows, Doors, and Customer Entrances, for additional requirements.
 - e. *False Windows and Doors.* Building elevations not adjacent to residential land uses, public rights-of-way, or parking lots, or that do not have a customer entrance, may use false windows and/or doors to fulfill the requirement in Paragraph a. above. The windows and/or doors, whether functional, false, or a combination of functional and false windows and/or doors, shall make up a minimum of thirty (30) percent of the elevation of which they are a part and shall have a minimum six-inch change of wall plane from the primary wall in order to provide shadow or sense of depth.
- (3) *Windows, Doors, and Customer Entrances.*
- a. In order to create a sense of transparency and to visually connect the building's interior with the public exterior, primary and secondary customer entrances shall be clearly defined, highly visible and feature a minimum of two (2) of the following treatments:
 - 1. Recessions and/or projections with a minimum change in wall plane of twenty-four (24) inches;
 - 2. Display windows that are located immediately adjacent to the customer entrance and that are in proportion to the overall façade of which they are a part;
 - 3. Canopies, porticos, overhangs, awnings, or marquees with a minimum projection of four (4) feet and of a width that at minimum spans the customer entrance;
 - 4. Raised, corniced parapets located over the customer entrance with a minimum projection of four (4) feet and that span at least the width of the customer entrance door; or
 - 5. Outdoor patios with customer seating and landscaping that at a minimum includes perennials, shrub plantings, and/or ornamental trees. Landscaping provided to meet this standard shall be credited towards the general minimum landscaping requirements as set forth in Section 070.040.050, Landscaping, Screening, and Fencing.
 - b. To preserve views and to provide a clear sense of connection into and out of the building, window and door glazing shall be transparent or have a low-reflectivity. Mirror-like windows are prohibited.
- (4) *Roofs.*
- a. To reduce the visual impact of roof mass, no roofline along any building elevation shall exceed fifty (50) feet in length without a visual variation that incorporates:
 - 1. Projections, recessions, dormers that alter the vertical or horizontal plane of the roof by at least two (2) feet; or
 - 2. Change in roof height of at least two (2) feet; or
 - 3. Another architectural feature approved through the Alternative Equivalent Compliance process.
 - b. Mansard roofs, or roofs having a mansard-like appearance, are prohibited.

-
- c. Flat roofs shall be concealed by parapets that are in proportion to the overall building design and that are generally of sufficient height to conceal rooftop mechanical systems that are in view from public rights-of-way, residential land uses, public parking areas, and/or adjacent properties. Parapets shall not exceed the maximum building height as established in Article 070.020: Zoning Districts, except where allowed by Subsection 070.020.190(d)(2), Exceptions to Height Requirements.

(5) *Building Materials.*

- a. *Primary Exterior Wall Materials.* Building materials shall be high-quality and long-lasting and shall have a proven ability to withstand Glenwood Springs' intense sunlight and temperature extremes. The primary exterior building wall material, consisting of at least seventy (70) percent of the elevation to which it is applied, shall be one (1) or more of the following:
 - 1. Brick;
 - 2. Natural and cultured stone;
 - 3. Wood;
 - 4. Stucco, including synthetic stucco;
 - 5. Metal, excluding metal with exposed rivets, seams or fasteners, ribs and batons; or
 - 6. Concrete, excluding smooth-faced gray concrete block, painted concrete block and pre-cast ribbed concrete panels.
 - 7. Another material that meets the intent of this standard if approved through the Alternative Equivalent Compliance process.
- b. *Accent Exterior Wall Materials.* Exterior building walls shall consist of one (1) or more of the following materials provided that the sum total of the materials enumerated below comprise no more than thirty (30) percent of the elevation to which it is applied:
 - 1. Smooth-faced gray concrete block, painted concrete block, or pre-cast ribbed concrete panels. However, when used in combination with the allowance above for concrete as a primary exterior wall material, the concrete in its entirety may not exceed seventy (70) percent of the elevation to which it is applied.
 - 2. Metal with exposed seams, rivets or fasteners, ribs and batons. However, when used in combination with the allowance above for metal as a primary exterior wall material, the metal in its entirety may not exceed seventy (70) percent of the elevation to which it is applied.
 - 3. Glass, when used as a curtain wall or when designed to span multiple floors.
- c. *Exterior Wall Materials Generally.*
 - 1. All sides of the building shall be constructed using materials that are compatible with, or of equal or greater quality, as those used on elevations with customer entrances, facing public rights-of-way, or surface parking areas.
 - 2. Highly reflective building materials shall not be used.
- d. *Roofing Materials.*
 - 1. Acceptable roofing material includes the following:
 - i. Rubber membrane or EPDM (ethylene propylene diene monomer).
 - ii. Built up or modified bitumen roofing systems.

-
- iii. Asphalt shingles.
 - iv. Metal, standing seam.
 - v. Clay tile.
 - vi. Another material approved through the Alternative Equivalent Compliance process.
- 2. Roofing materials shall not include corrugated metal panels.
- (6) *Building and Roofing Colors.*
- a. Color and intensity of color proposed for all exterior building and roofing materials, including exposed rooftop mechanical systems such as HVAC equipment, roof vents, air handling/exchange units, shall be warm or dark earth-toned colors with low reflectivity.
 - b. Exterior building and roofing colors shall not include white, off-white, high-intensity primary colors, and/or fluorescent colors.
- (7) *Supplemental Building Design Standards: Downtown Core.* Setbacks, orientation, and heights of new buildings in the Downtown Core shall be similar to those found on the same block face and shall comply with the following additional standards:
- a. *Building Scale and Massing.*
 - 1. Building scale and massing shall respect the scale and massing of existing buildings along the block face.
 - 2. The height of new buildings shall vary as follows:
 - i. Variation shall be used in building roof and parapet heights to add visual interest and reduce boxy or monolithic building masses.
 - ii. Upper floors of a large building mass shall be stepped back from the street or an adjacent residential zone to reduce looming effect.
 - iii. Step back distances and proportions shall be varied to avoid monotonous, uniform, tiered "wedding cake" appearance.
 - 3. Featureless backs of buildings shall not be located adjacent to the Roaring Fork or Colorado River. To encourage active uses in this area, all design standards applicable to street frontage structures shall also be applicable to the back of a building in this area.
 - b. *Building Height.*
 - 1. Floor heights in new buildings shall be similar to those of existing historic buildings in the downtown commercial core. (Figure 040-27)
 - i. The level of the first floor shall be at or near grade level at the entrance.
 - ii. The first floor shall appear to be a full floor in height.

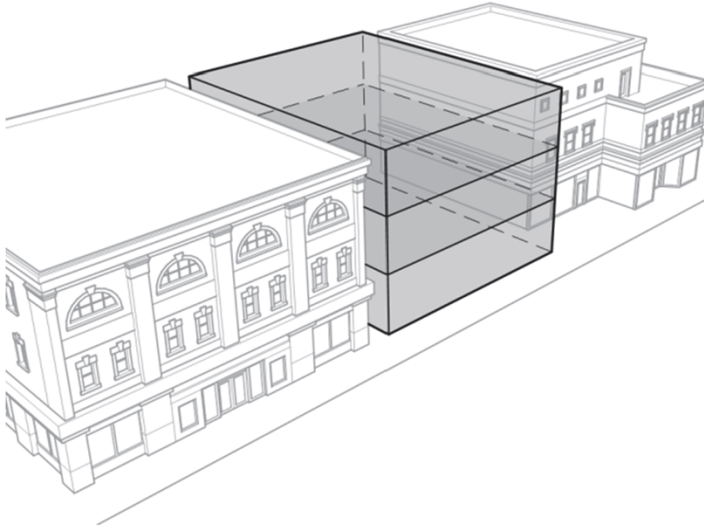


Figure 040-27: Building Floor Heights

2. Structures directly adjacent to residential buildings shall "step-down" in height on the abutting edge to match the height of the adjacent structure.
- c. *Roof Design.*
1. The alignment of horizontal elements along the block face, including parapets and cornices, shall be maintained along the entire façade to provide a continuous visual line along the block.
 - i. This alignment occurs most successfully when buildings are similar in height.
 - ii. Window sills and moldings are examples of other building elements that shall be aligned.
 2. The primary roof form shall appear to be flat, as traditionally found on the City's downtown commercial structures. A parapet shall conceal roofs.
 3. Roof design shall be consistent with those of historic buildings in the commercial Downtown Core.
 4. Roofs are encouraged to be activated with decks or vegetation. Roof decks are appropriate to take advantage of views. Green roofs, or "living roofs," are appropriate to bring visual interest to highly visible roofs, as well as contribute to sustainability principles.
 5. Roofs shall be designed to manage snowfall, using methods that appropriately prevent injuries from snow or ice falling from buildings.
 6. Monolithic roof design is not appropriate. See also requirements under Building Articulation.
- d. *Building Articulation.*
1. Vertical and horizontal articulation techniques shall be used to establish a sense of scale in the design of a larger building. Articulation techniques include, but are not limited to:
 - i. Wall offsets;

- ii. Step backs;
- iii. Base, middle, and cap design; and
- iv. Variation in material (Figure 040-28).

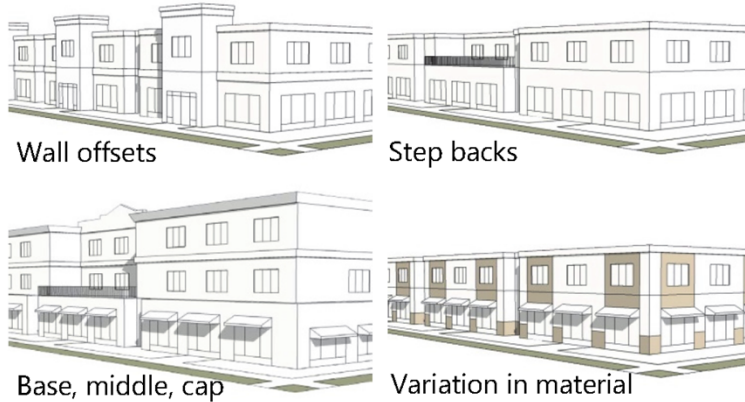


Figure 040-28: Building Articulation Techniques

- 2. Vertical articulation shall be used to express traditional façade widths **were- when** a new larger building is adjacent to existing, smaller-scale buildings.
- 3. To minimize apparent mass, new buildings shall be divided into bays through projections and/or recesses (minimum two (2) feet deep and one (1) foot wide) at a minimum of every twenty-five (25) feet in order to be compatible with the character of historic building frontages. **Projections and/or recesses shall include a column and lintel feature.** Civic structures may vary in front width and shall be reviewed on an individual basis for compatibility.
- 4. ~~Buildings shall have a clearly articulated architectural distinction between the street level and upper floors, expressed through detailing, changes in materials, and fenestration. One (1) or more belt courses shall be used to help distinguish between floors.~~
- e. *Floor Distinctions.* Buildings shall have a clearly articulated architectural distinction between the street level and upper floors, expressed through detailing, changes in materials, and fenestration. One (1) or more belt courses shall be used to help distinguish between floors. **Belt courses shall be a minimum 4-inch depth**
- f. *Commercial-Oriented Building Design.*
 - 1. The ground-level street frontage of every nonresidential and mixed-use building in the Downtown Core shall be primarily dedicated to commercial uses.
 - 2. New commercial storefront buildings shall incorporate the following character-defining elements: (Figure 040-29)
 - i. Display windows: The main portion of glass on the storefront.
 - ii. Glass transom: The upper portion of the display, separated from the main display window by a frame.
 - iii. Kickplate: Found beneath the display window. Sometimes called a bulk-head panel. **Kickplates shall measure between 18-24 inches tall.**

- iv. Upper-story windows: Windows located above the street level. These usually have a vertical orientation, and appear to be less transparent than the large expanse of glass in the storefront below.

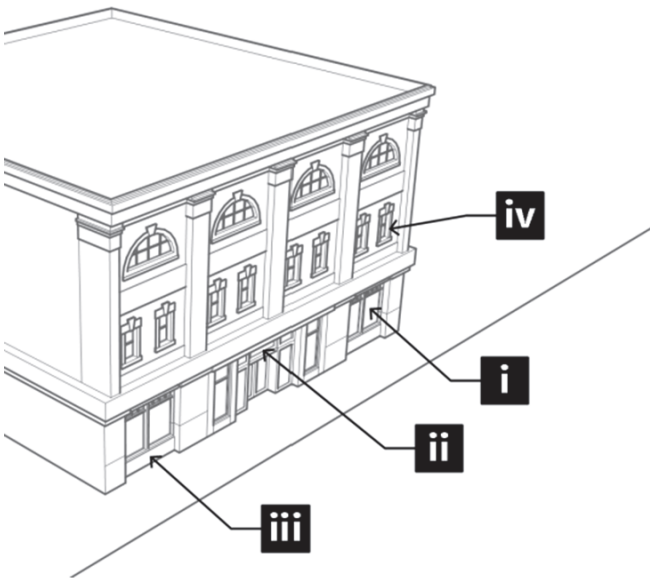


Figure 040-29: Commercial-Oriented Building Design

Annotations correspond with paragraph numbers in the preceding text.

g. Windows and Transparency.

1. Windows shall be located and spaced to express the rhythm and visual continuity found in historic buildings in the Downtown Core.
 - i. Horizontal spacing shall be consistent between windows on a floor.
 - ii. Windows shall be vertically aligned on upper and lower floors.
2. The size and proportion of windows shall be in the range of heights and width as found in historic buildings in the Downtown Core.
3. The first floor of the primary façade shall be sixty-five (65) to eighty (80) percent transparent glass.
4. Windows shall be designed windows to create depth and shadow on a façade.
 - i. Upper floors shall be perceived as being more opaque than the lower floor.
 - ii. Highly reflective or darkly tinted glass is prohibited.

h. Building Entry.

1. The primary building entrance shall be recessed; doors that are flush with the sidewalk are prohibited.
2. Doors shall be made of at least forty (40) percent glass.
3. Accent colors shall be used on the door(s) to encourage pedestrian activity.

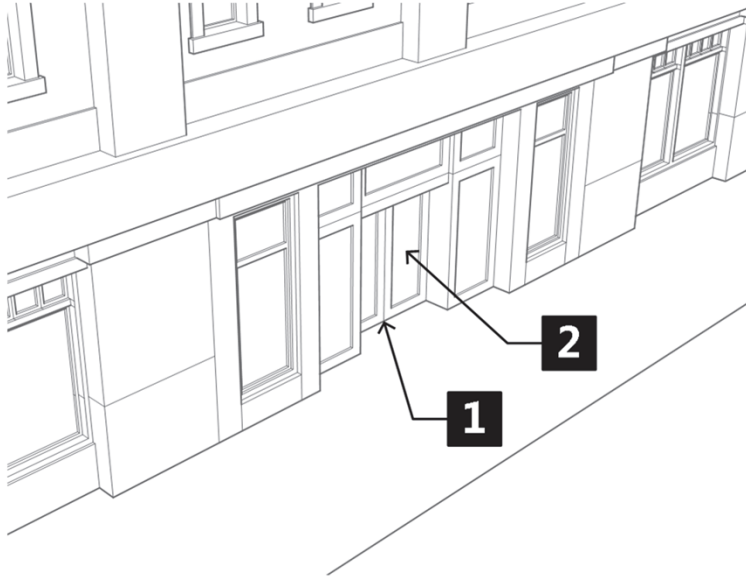


Figure 040-30: Commercial-Oriented Building Design

Annotations correspond with paragraph numbers in the preceding text.

i. *Awnings, Canopies, and Marquees.*

1. Awnings and canopies shall be canvas with a matte finish. Awnings with high gloss finishes are prohibited. Marquees may be constructed in metal but shall be painted or shall have a matte finish.
2. Rigid frame awnings and canopies may be used, but shall stop at the top section and shall not be included in the valance.
3. Illuminated, plastic awnings and canopies are prohibited.
4. Awning and canopy colors shall be compatible with the overall color scheme of the façade. Solid colors or subtle striped patterns shall be used.
5. Awnings and canopies for rectangular openings shall be simple shed shapes. Rounded or bull-nose awnings and canopies shall only be allowed over arched openings.
6. Marquees shall be located only over the primary public entrance into a building.
7. Awnings, canopies, or marquees that span continuously across more than one (1) structural bay or storefront shall not be allowed.
8. Poles or posts supporting awnings, canopies, or marquees shall not be allowed.
9. Awnings, canopies, or marquees shall not project more than five (5) feet from the building façade to which they are attached.
10. Awnings, canopies, or marquees shall maintain an eight-foot height clearance above a public sidewalk, or other publically owned space. Additional height clearance may be required if an awning, canopy, or marquee is located over a public right-of-way, including an alley way.

j. *Building Materials and Colors.*

-
1. Primary materials shall be similar in character to those used traditionally on downtown commercial structures by complying with the following standards:
 - i. Brick and masonry, known for their durability, were traditionally found on historic commercial structures in downtown. New materials shall demonstrate similar durability and compatibility. The use of split face concrete block is prohibited, but may be approved through the Alternative Equivalent Compliance procedure.
 - ii. Diagonal wood siding shall not be used.
 - iii. Cinder block is acceptable for interior walls, but shall not be used as an exposed material on building façades facing streets, alleys, or undeveloped lots.
 2. Accent materials shall be similar to those used historically. Wood was traditionally used for trim elements on commercial storefronts while stone, painted metal, terra cotta, ceramic tile, and rounded plaster were used in detailing.

(Ord. No. 19-2018 , § 2(Exh. A), 8-2-2018; Ord. No. 3-2021 , § 2(Exh. A), 5-20-2021)



Regular Meeting
DECEMBER 14, 2021

MINUTES
Council Chambers, First Floor
101 W. 8TH STREET
6:00 PM

Attendance Instructions

A. This meeting is being held in person at City Hall as well as on Zoom.

Please click the link below to join the webinar:

<https://us02web.zoom.us/j/84898276149>

Zoom instructions and also available at <https://cogs.us/129/Agendas-Minutes>

1. Roll Call

Present at roll call were Commissioners:

Carolyn Cipperly, Marco Dehm, Sumner
Schachter, George Shaver, Ben West

Absent at roll call were Commissioners:

Amy Connerton Amber Wissing, Joy White,
Pete Waller,

Also present were:

Asst. City Manager Jenn Ooton, Asst.
Community/Economic Dev. Director Hannah
Klausman, Assistant City Attorney Richard
Peterson-Cremer

2. Seating of Alternate Commissioner

No Alternates

3. Motion to accept the minutes from the November 16, 2021

Motion to accept minutes is called by Commissioner Cipperly and seconded by Commissioner Shaver.
Motion to accept minutes passes unanimously 5-0 (Commissioner Schachter wants his name removed
he was absent. Commissioner Shaver was present)

4. Chair Dehm calls for public comments for items not in the agenda.

No comments.

5. Continued Items

A. Consideration of Code Text Amendments to Municipal Code Title 070 including but not exclusive of sections 070.020, Zoning Districts, 070.030 Use Regulations, and 070.040 Development Standards regarding standards for wireless communication facilities, Residential, Nonresidential and Mixed-Use Site and Building Design, and off-street parking and loading.

ii. 070.040.090 Nonresidential Design Standards and Business Overlay District

Asst. Director Hannah Klausman explained this item is part of Planning Item 57-21. Staff has sent out public notice to all property owners within 300 feet of the proposed overlay district to allow the community to consider and comment on the proposal. No public comment had been received by the meeting. Ms. Klausman explained that the proposed amendments include minor edits to design standards as well as the creation of a Business District Overlay Zone that provides standards for the orientation and location of parking lots and standards for percentage of tax generating retail uses on the ground floor. Staff showed an updated map of the proposed overlay zone boundary. Overlay zone standards include 50% of the gross floor area on the first floor shall be uses that generate sales and/or lodging revenues for the city when a nonresidential building is proposed on a vacant lot or after a nonresidential building is demolished. In addition, 100% of off-street surface parking is required to occur behind the rear wall of the primary building.

Questions to Staff:

Why is the overlay area so small? Error correction on 50% ground floor being added to both vacant lot and demolished scenarios.

Staff responded that the overlay area was based on Planning and Zoning Commissions work session focus of the main Grand Avenue and 6th Street areas with consideration given to parking and residential areas on adjacent streets. Correction noted.

Public Comments:

Jon Zalinski, owner of downtown business, question on existing parking lots becoming violations? Concerns on ability to sell building, ability to allow flexibility on where tax generating uses occur. Suggests broader picture for investments in buildings and not pigeon hole businesses to specific configuration. Feels constricting. Suggests expanding the zone to the 7th Street corridor to 8th street Crossing area as well.

Staff clarified the intent of the overlay zone is to activate the downtown area with vibrant uses oriented towards commercial retail activities that draw in pedestrians and downtown visitors.

Motion:

Commissioner Schachter motions to approve the item. Commissioner Cipperly seconds the motion.

Commission Discussion:

Commissioners discussed at length the desired boundary for the overlay district. Commissioners wanted to simplify multiply downtown boundaries and capture a greater area to be forward thinking and less reactionary. Suggestions were reviewed to match the boundary to the GID boundary, the DDA boundary, and the Downtown Design Standards boundary.

Commissioners debated the impacts to residential areas in the overlay area and impact and what would happen to existing parking and considered rewording to apply the parking standards to nonresidential only.

Additional comments included the desire to increase the ground floor area required to be lodging or sales tax generating to 75% instead of 50%. Proposes 75%, more vibrancy.

Director Ooton mentions that the Commissioners should give thought to the impact to parking garages and that these standards would make those structures more cost prohibitive and challenging to build.

Commissioners suggested addition of exempting Parking Garages from the overlay standards since it is a Special Use Permit process anyways that requires review. Clarification from staff that a Parking Structure would be categorized as a Nonresidential building.

Motion Withdrawn by Commissioner Schachter, and Commissioner Cipperly seconds withdrawal.

Public comment reopened:

Jon Zalinski. Concern regarding shrinking available developable footprint if parking is required in the back. Think about allowing lodging use on the 2nd floor qualifying as well as ground floor. Explains that the DDA likely has a common goal of vibrancy and proposes the DDA boundary.

Legal suggest exempting the School property known as Vogelaar park from the overlay district. The City has been working on a 6F land exchange for City ownership. Commissioners choose to include the land in the boundary and allow staff to discuss with Council whether to include that property in the boundary at time of Council review.

Motion:

Commissioner Cipperly makes a motion to approve Code Amendments with Commissioner changes including amending the overlay boundary to match the downtown design standards boundary, increasing the ground floor to 75% tax and lodging tax generating uses, and exempting parking structures from the overlay standards. Commissioner Schachter seconded the motion. Motion passes unanimously with a 5-0 vote.

7.Commissioner comments

Commissioner Cipperly is glad that they are moving this ahead as a way to preserve the Glenwood character. Commissioner Shaver asked about transportation data from the previous meeting, Commissioner Schachter is pleased with the commissions processes and to not let an opportunity pass to recommend design standards even if the standard is not required. (Solstice Condos) Commissioner West thinks it is great to have the forward progress and the vision for the City to keep that vision at the forefront. Chair Dehm commended all the commissioners for playing well with others.

8. Director Comments

Jennifer Ooton Community Development Director informs that City Council is having a special meeting On January 27th and would like one member of the P&Z Commission to represent the Commission.

Hannah Klausman, Assistant Director, updated the Council on upcoming applications for January's regular meeting.

9. Meeting Adjourns at 08:10 pm.



City Council
STAFF REPORT
City of Glenwood Springs
February 3, 2022

Agenda Item:	Tourism Management Board Interview
Action Requested:	Tourism Management Board Interview
Department:	City Administration
Strategic Goals:	Provide Efficient and Responsive City Government
Background Info:	The Tourism Promotion Board has four regular seats opening up in February 2022, with terms expiring February 2025. These seats are: • One Tourism Seat • One Lodging Seat • One Restaurant Seat • One Resident Seat Pam Macmillan; Resident. Applied for a Resident Seat. Pam was unavailable for an interview on January 20th. According to the Municipal Code, appointments to the boards and commissions shall be by the City Council for terms of three (3) years each, and each member shall serve until his/her successor is appointed and takes office; provided, however, that the initial terms of office may be shortened by the City Council so as to provide overlapping terms of office. Council may appoint up to three alternate members of a board or commission.
Issues:	None.
Staff Recommendation:	N/A



Tourism Promotion Board Application

Thank you for your interest and time commitment in serving your community. Please complete all questions on this application.

Composition of the Tourism Promotion Board

(as defined in Title 020 of the Glenwood Springs Municipal Code)

- a. Two (2) representatives from tourism-related businesses located within the city;
 - b. Two (2) representatives from lodging businesses located within the city;
 - c. One (1) representative from restaurant or retail businesses located within city;
 - d. One (1) representative from the Glenwood Springs Chamber Resort Association; and
 - e. Three (3) citizens, who are residents of the city, that may have a financial interest in a tourism-related business.
-

Personal Information

1. Membership Qualifications *

You must qualify as one of the options below to serve on the Tourism Promotion Board. Please select the option that applies to you.

- ☐ Two (2) representatives from tourism-related businesses located within the City
- ☐ Two (2) representatives from lodging businesses located within the City
- ☐ One (1) representative from restaurant businesses located within the City
- ☐ One (1) representative from the Chamber Resort Association
- ☒ Three (3) citizens who are residents of the City, that may have a financial interest in a tourism-related business.

2. Please explain here how you are qualified: *

I own a home in Downtown Glenwood Springs and I would like to see Glenwood continue to have a real, viable and thriving tourism industry (which it does not have now). As an artist, a designer and a home owner, I have a vested interest in the aesthetic quality of this town. People come here to enjoy the outdoors and see a Beautiful Colorado Mountain Town. They want Access to our Rivers and Trails, Bike Paths, Walking areas, Events, Music, Activities, Wonderful little Shops and Great Restaurants. If you want people to come here and spend money and time you need to offer them the best of Colorado. We need some long range planning. They don't want traffic, a bunch of junk and drug addicts laying on public walk ways, they can get all that at home. Glenwood Springs really needs to pick up the pace if they want people to choose this town for their vacation or weekend getaway. We have no Holiday Activities this year what happen?

3. Name *

Pam Macmillan

4. Home Address *

1009 Colorado Ave. Glenwood Springs ,CO 81601

5. Mailing Address *

1009 Colorado Ave. Glenwood Springs ,CO 81601

6. Home Phone *

303-917-4686

7. Work Phone *

303-917-4686

8. Mobile Phone *

303-917-4686

9. Email Address *

pmacmillan6199@gmail.com

10. Occupation *

Design Consultant for Crossville Studios

Personal and Professional Interests

11. Why are you interested in serving on the Tourism Promotion Board? *

Tourism is a clean industry for the most part. I like living in a place people want to visit. Glenwood Springs is growing and providing a great place to visit also means a great place to live and work. We have two wonderful rivers that meet here and no downtown access. Outside seating at restaurants started ,because of COVID, why was there never outside seating before? We need to get going on attracting people to our town for the right reasons if we don't just want to be a place people speed through to get somewhere else.

12. What do you view as your role if selected as a member to the Tourism Promotion Board? *

Getting new plans in place to make this town grow in the right direction. Figuring out how to pay to make things happen and attracting people here who can make things happen. Young people and people with experience developing a town correctly.

13. Do you have marketing, advertising, or public relations experience or skills? *

I was a teacher for 20 years, I have run my own painting business and I am in sales now.

14. Do you have tourism industry experience or skills? *

I was a ski instructor for Vail for 8 years and Aspen Ski Co. for 8 years.

15. Can you describe an experience making a decision based on public opinion? *

When you teach you do what is best for the children in your class at that time, not for their parents or the school district.

16. Can you separate yourself from your personal opinions and represent the City's goals, policies, plans and the Glenwood Springs Municipal Code in an equitable fashion? *

I can separate my personal opinions, but the City's goals have not really lined up with what the people who live here and work want. I talk to people who run restaurants and shops here a lot. Glenwood Springs does not listen to them. I have been to city meetings and the city has a habit of sending low level people to present and field questions and then they whatever they want. This town is not being developed responsibly. It is becoming trashy, the traffic is awful and bums on the streets are increasing.

17. Do you have any existing time commitments that will hamper your ability to serve? *

I work full time ,but if I know when meetings are I will get off

18. What experience do you have working with people on a board, commission, or committee? *

None

19. Please select today's date. *

12/3/2021



20. Have you served on the Tourism Promotion Board before? *

☒ No

☐ Yes

Powers and Duties of the Tourism Promotion Board

(as defined in Title 020 of the Glenwood Springs Municipal Code);

(m) Tourism Promotion Board. The powers and duties of the Tourism Promotion Board shall be:

- (1) To investigate, study and report to the City Council:
 - a. All matters concerning tourism marketing and promotion that pertain to the benefit of Glenwood Springs and the area within the 81601 postal zip code, and
 - b. Other matters concerning the subject of tourism marketing and promotion which may be pertinent to the benefit of the City and the area within the 81601 postal zip code.
- (2) To coordinate with City Staff, Community Organizations, Community Businesses, and other Boards and commissions, when applicable to efficiently market and promote tourism to the benefit of Glenwood Springs and the area within the 81601 postal zip code.
- (3) To, at its discretion, and in addition to initiatives that directly market and promote features and attractions within the City and the area within the 81601 postal zip code, market and promote the geographical proximity of Glenwood Springs to other features and attractions outside of the 81601 postal zip code in ways that could reasonably be expected to benefit the City.
- (4) To establish rules of procedure and order for the Board to follow.
- (5) To review tourism marketing plans; to set tourism marketing goals, to determine the methods to accomplish and measure success in accomplishing those goals; to determine the appropriate staff and marketing contractor(s)/vendor(s) resources needed; to recommend to the City Council an annual tourism marketing budget; to recommend, to the City Council, award of contract(s) for the best candidate for contract staff and marketing contractor(s)/vendor(s) ,deemed necessary,

based upon an approved Request for Proposal, Request for Qualification or other process; and to provide oversight of performance of contract staff and marketing vendor(s)/contractor(s) contract terms to ensure the efficient and effective implementation of the marketing goals and to report problems with performance to City Council.

(6) To meet with the City Council on an annual basis, or as often as requested by the City Council, to identify marketing priorities of the City.

(7) To complete all other duties as may be directed by City Council.

Appointment, Removal, Term and Vacancies of Boards and Commissions

(Per the Glenwood Springs, CO Municipal Code 020.020.040)

(a) Appointment and term of members. Except as otherwise provided, all appointments to the boards and commissions shall be by the City Council for terms of three (3) years each, and each member shall serve until his/her successor is appointed and takes office; provided, however, that the initial terms of office may be shortened by the City Council so as to provide overlapping terms of office. Appointments shall expire the day before the first regular meeting of the City Council in each month according to the following schedule:

(1) February:

Tourism Promotion Board;

(b) Alternate members. The City Council at its discretion may appoint up to three (3) persons as alternate members for each board or commission. If a regular member of a board or commission is to be absent from a meeting, the presiding officer for the meeting may select an alternate member to fill such absence and to attend and serve at the meeting. The alternate member may exercise all powers at the meeting which the absent regular member could exercise, and the alternate's powers and privileges shall terminate at the end of the meeting attended. The presiding officer may at his/her discretion select the same alternate to serve at successive meetings in the absence of any member.

(c) Limit to term of members. No board member shall serve more than two (2) successive terms on the same board or commission.

(d) Removal of members. All appointed members of a board or commission shall be subject to removal, at any time, by the City Council. In the event an appointed member of a board or commission ceases to qualify for membership, his or her appointment is immediately terminated.

(e) Vacancies. The City Council shall fill all vacancies on boards and commissions by appointment for the unexpired term.

(Code 1971 §§ 2-63, 2-64, 2-67; 6-95 § 1; 10-07 § 2; Ord. No. 9-2018 , § 2, 4-20-2018)



City Council
STAFF REPORT
City of Glenwood Springs
February 3, 2022

Agenda Item: Potential Charter Changes

Action Requested: NA

Department: Attorney

Strategic Goals: Provide Efficient and Responsive City Government

Background Info: City Council requested this topic be placed on the February 3 work session agenda for discussion. There is a memo attached that lays out potential areas of discussion.

Issues: NA

Staff Recommendation: NA

Glenwood Springs – Main Office

201 14th Street, Suite 200
P. O. Drawer 2030
Glenwood Springs, CO 81602

Aspen

323 W. Main Street
Suite 301
Aspen, CO 81611

Montrose

1544 Oxbow Drive
Suite 224
Montrose, CO 81402

Office: 970.945.2261

Fax: 970.945.7336

**Direct Mail to Glenwood Springs*

DATE: January 26, 2022
TO: Glenwood Springs Mayor and Council
FROM: Karp Neu Hanlon, P.C.
RE: Potential Charter Amendments and/or Changes

The purpose of this memo is to serve as a starting point for a conversation regarding a potential Charter amendment. Those changes potentially fall into three major categories:

- a. Changes to the structure of Council including the mayor position. These changes could range from an elected mayor to a required rotating mayor on an annual basis.
- b. Changes to the election process including runoff voting, requirements for elected councilors to be elected by a majority rather than plurality, and changes to align with both state constitutional and state statutory provisions regarding initiative, referendum, recalls, and mail in voting.
- c. Changes related to procurement including increasing or eliminating the competitive bid dollar amount in the Charter and leaving that to counsel to establish via ordinance on a regular basis.

In addition to the Charter changes, Council will need to complete a redistricting ordinance prior to the first Tuesday in April in 2022 if that redistricting will be affective for the 2023 municipal election, pursuant to the provisions of the Charter. Redistricting is not required, but we have not completed any review or changes to the current ward districts since 2001.



City Council
STAFF REPORT
City of Glenwood Springs
February 3, 2022

Agenda Item:	Pedestrian and Bicycle Improvements Plan (MOVE Study)
Action Requested:	Review and adoption (at the January 20th meeting) of the recommendations from the MOVE Study Pedestrian and Bicycle Improvements Plan.
Department:	Engineering
Strategic Goals:	Protect and Preserve our Quality of Life Preserve and Improve Infrastructure
Background Info:	In June of 2021 the City in partnership with RFTA completed a large transportation study which included recommendations for new, and improvements to existing, pedestrian and bicycle infrastructure. They are planned in three phases based on cost and the implementation of a new BRT route, either on the Rio Grande trail, or on Grand Avenue. In summary those improvements include: Phase 1 (10k-50k): • Maintenance of trails on our existing system • Improved way finding • Added bicycle parking and storage • Sharrows and enhanced bicycle striping Phase II (50k-1 M): • Improvements at the 27th and Midland roundabout and pedestrian connections on 27th leading to the new underpasses at 27th. • Improved east west bike/pedestrian connections on 8th, 12th and 14th • 27th Street Underpasses Phase III (With chosen BRT alignment- 1 M +): • Connect bicycle network to transit stops • Improve sidewalk widths on Grand • Improve the alignment of the trail and road at 23rd and Grand • Improve the Rio Grande Trail. Maximize width and separation if BRT goes in. Add trail amenities.
Issues:	None at this time. If this plan is approved, staff will begin adding projects to the capital projects list or maintenance lists at the time of budget development.
Staff Recommendation:	Approve and adopt the Bicycle and Pedestrian Improvements Plan from the MOVE study.



GLENWOOD SPRINGS MULTIMODAL OPTIONS FOR A VIBRANT ECONOMY (MOVE)

Pedestrian and Bicycle Improvements Plan

April 2021



A well-planned transit system takes into account how passengers can travel to and from transit by all modes. Making the first- and last-mile trips easy, safe, and comfortable for people walking and bicycling will likely enhance the success of the RFTA transit system through Glenwood Springs.

There are a number of recommended improvements that can be made to the walking and cycling network in Glenwood Springs, ranging in complexity, cost, and their dependency on a future BRT alignment. These recommendations are outlined below in three groupings or phases: Phase 1, which can be implemented easily, at low cost, and independent of any specific transit improvements; Phase 2, which are still independent of transit or BRT but more complex and require planning and funds; and, Phase 3, which are dependent on a selected BRT alignment.

Phase 1 Improvements: easy & quick implementation – Estimated improvement costs \$10k-\$50k

There are many improvements that can be made to the existing walking and bicycling network in Glenwood Springs to enhance the comfort and connectivity of the existing active transportation network. These improvements will enhance and facilitate walking and biking to, from, and between neighborhoods, existing transit stops, and local destinations.

- **Maintenance of existing sidewalks and trails**
Proper and timely maintenance, year-round, of the existing sidewalks, multi-use trails, and on-street bicycle routes is the key to encouraging active transportation in Glenwood Springs and traveling to and from transit via foot or bike and ensuring that the network is safe and comfortable. Priority should be given to routes connecting to transit and key destinations. This includes timely repair of surface damage; prompt removal of snow, ice, and debris; keeping sidewalks and trails clear of obstructions, including temporary construction signs and barricades when not in use; providing safe and clearly marked detour routes when construction does close bike and pedestrian routes; and maintaining pavement markings, wayfinding signs, and pedestrian ramps. This attention to maintenance should also be applied to any new or proposed multimodal improvements, and regular maintenance should be accounted for in annual budgeting.
- **Network Wayfinding**
Glenwood Springs has an existing wayfinding program along various pedestrian and bicycle routes. However, increasing the frequency and consistency of wayfinding signs and pavement markings will help people walking and biking feel informed and confident navigating to and from transit and destinations in between. Including information to major transit stops, long-term bicycle storage, key local destinations, and estimated travel time/distance will provide people with the information they're looking for in a consistent delivery they'll see and be able to understand. Improved wayfinding may also be used to communicate intended facilities and travel patterns meant for people walking and biking, i.e., if a cyclist should use the road or travel on a shared trail.
- **Added Bicycle Parking and Storage**

Providing safe, secure bicycle parking and storage at major transit stations and minor transit stops is important. The existing transit station at 27th Street currently experiences issues with the parking lot filling up and deterring people from traveling to the station. Increasing bicycle storage, both long- and short-term, will lessen the need for driving to the station if cyclists feel their bikes will be secure while traveling to and from their transit destinations. Additionally, adding more bike racks at minor stops and downtown will encourage people to travel by bike for their last-mile trips. Installing bike storage near lighting and shelter increases a sense of safety and may encourage use at night and year-round.



FIGURE 1. EXAMPLE OF BICYCLE STORAGE AT TABLE MESA PARK-N-RIDE, BOULDER

- Existing Network Connections

In the existing bicycle and pedestrian network, there are a handful of opportunities to improve connections between facilities and destinations. The Rio Grande Trail between downtown and 27th Street is a popular commuter and recreational route for people living and working in Glenwood Springs. However, getting on/off the trail at 8th Street, 12th Street/Riverside Drive, and 14th Street/Coach Miller Drive is not ideal for cyclists and pedestrians. These locations have confusing wayfinding, rail tracks to cross over, uneven grades, uneven pavement, or gravel and other debris that make these connections uncomfortable and potentially unsafe. Adding wayfinding signage and improving accessibility at these locations would enhance the existing network and improve connections so people riding or walking feel confident accessing and traveling along the Rio Grande Trail. The connection between the Rio Grande Trail, the Meadows Trail, and 8th Street/Downtown is a critical connection between two widely used trails and transit and business services in Downtown Glenwood Springs. However, continuity between the trails, or how to access downtown from either of the trails, is not intuitive or clearly indicated. This is a specific location where increased wayfinding and design improvements would greatly add comfort and safety to the pedestrian and cyclist experience along these corridors.

Glenwood Springs currently has two north-south on-street bicycle routes with bike lanes: Pitkin and Blake Avenues. However, there are no east-west bicycle routes to connect those cycling elsewhere in town to these routes or to the paved trail system. Improvements should be

considered on key east-west streets to improve bicycle connections and safety. On-street parking downtown is highly utilized and has frequent turnover, which presents conflict if bike lanes were added to these streets in the downtown core. However, Shared Lane Markings (“Sharrows”) could be placed on streets downtown to communicate to both cyclists and vehicles that cyclists are welcome on the roadway and should take the lane. Enhancing the Sharrows with green backgrounds or by enlarging the pavement marking and adding supplemental dashed markings to indicate intended positioning. Adding bicycle detection, bike boxes, and/or bicycle push buttons at intersections would shorten the wait time if a cyclist approaches an intersection without other vehicles.



FIGURE 2: "SUPER SHARROW" PAVEMENT MARKING IN ASPEN, CO INDICATES PRIORITY & POSITIONING FOR BICYCLISTS ON SHARED ROADWAY.



FIGURE 3. PROPOSED PHASE 1 IMPROVEMENTS

Phase 2 Improvements: independent of BRT alignment – Estimated improvement costs \$50k-\$500k

- **27th Street improvements**
27th Street serves as an important multimodal connection to the 27th Street RFTA station, the Rio Grande Trail, the Atkinson Trail, and many neighborhoods off of Midland Avenue and Grand Avenue. Improvements have been made in recent years to improve intersection and trail safety, with the new bike/pedestrian bridge and roundabout at 27th Street and S Grand Avenue. However, since 27th Street is such a critical link for all modes, there are additional recommended improvements to make traveling as safe and comfortable as possible for people walking and biking. These improvements will greatly improve the multimodal network and experience in Glenwood Springs and connections to the existing transit services, independent of a future BRT service.

Currently, there are 6-foot sidewalks on the north and south sides of 27th Street. The sidewalk on the south side, however, does not connect fully between S Grand Avenue and S Glen Avenue/SH 82; it ends west of the Roaring Fork School District parking lot. Both sidewalks should span the full length of 27th Street; the north sidewalk, as it connects to the bike/pedestrian bridge, should be widened to a 10-foot trail to accommodate both bicycles and pedestrians. Additionally, wayfinding signage should be installed directing trail users to the 27th Street RFTA station, the Rio Grande Trail, and the Atkinson Trail. Signage should identify the north sidewalk as the preferred facility for cyclists, and ramps at all intersections on the north side should be wide enough to accommodate a comfortable bicycle movement, at least 8 feet wide and 10 feet deep to allow for easy bike maneuvering to cross. Signs at intersections should warn vehicles to look for both pedestrians and cyclists crossing.

Additionally, the existing roundabout at 27th Street and Midland Avenue has approach grades that allow vehicles to travel comfortably through the roundabout at speeds close to the posted speed limit of 25 mph. While the design of this roundabout maintains vehicle flow, it is unsafe for pedestrians and cyclists crossing the legs of the roundabout, especially with the absence of RRFB crossing signs and lights like the ones installed at the new roundabout at 27th Street and S Grand Avenue. It is recommended to improve the grades of the roundabout approaches to slow vehicles as they approach and travel through the roundabout. This will likely improve visibility of and yielding to pedestrians and cyclists wishing to cross at the roundabout. Adding flashing beacons to the crossing signs will add to the benefit of improved grades. With the addition of the new multi-use sidepath along S Midland Avenue, wayfinding should be added ahead of and around the roundabout to guide pedestrians and cyclists as they maneuver around the roundabout to connect to the Atkinson or Rio Grande Trails, the 27th Street RFTA Station, or to continue along Midland Avenue. Since many cyclists will be approaching the roundabout from the new off-street sidepath on S Midland, adequate path width and maneuverability, in addition to

wayfinding, should be provided for comfortable and safe travel around the roundabout. Access between the roundabout at Midland and the 27th Street bike/ped bridge should be improved, by widening the existing sidewalk to a 10' shared-use sidepath, squaring up the intersection at Woodberry Drive and aligning the ramps for safe and visible crossings, and continuing increased wayfinding to guide pedestrians and cyclists along this route.

- **Off-Street Bicycle Facilities**

Glenwood Springs has many great paved trails for both cyclists and pedestrians to use. There are also many sidewalks in Glenwood Springs that are either designated as bicycle routes, or – due to a lack of comfortable and designated on-street bicycle facilities – many cyclists choose to ride on rather than the road to avoid conflicts with vehicles. If an existing sidewalk is to be used for both cyclists and pedestrians, either due to traffic volumes, grades, alignment, or otherwise, the sidewalk should be upgraded to a 10-foot sidepath (8-foot minimum) and designed and designated as such, following trail or sidepath design standards as laid out in the *FHWA Small Town and Rural Multimodal Networks Guide* and *AASHTO Guide for the Development of Bicycle Facilities*. Wayfinding and signs should be included to communicate the trail as designated for both bikes and pedestrians and proper etiquette (yield to peds, announce to pass, etc.). Road signs should communicate to vehicles to look for both pedestrians and cyclists when turning. Ramps on these facilities should be constructed to accommodate comfortable movement by cyclists. Improvements to these routes should especially be prioritized where connecting directly to transit stations and key destinations, for example the north sidewalk on 27th Street, the sidewalk on Midland Avenue, and the sidewalk on 8th Street connecting the Rio Grande Trail to Downtown Glenwood Springs.

- **Pedestrian Network**

Gaps in the sidewalk network make walking to/from transit and destinations uncomfortable and unsafe for pedestrians, and near impossible for people with mobility or vision impairments. These gaps should be identified and filled to ensure full connectivity for people walking. Existing sidewalks should be evaluated for maintenance needs, including out-of-date accessible ramps, cracks, uneven grades, etc.

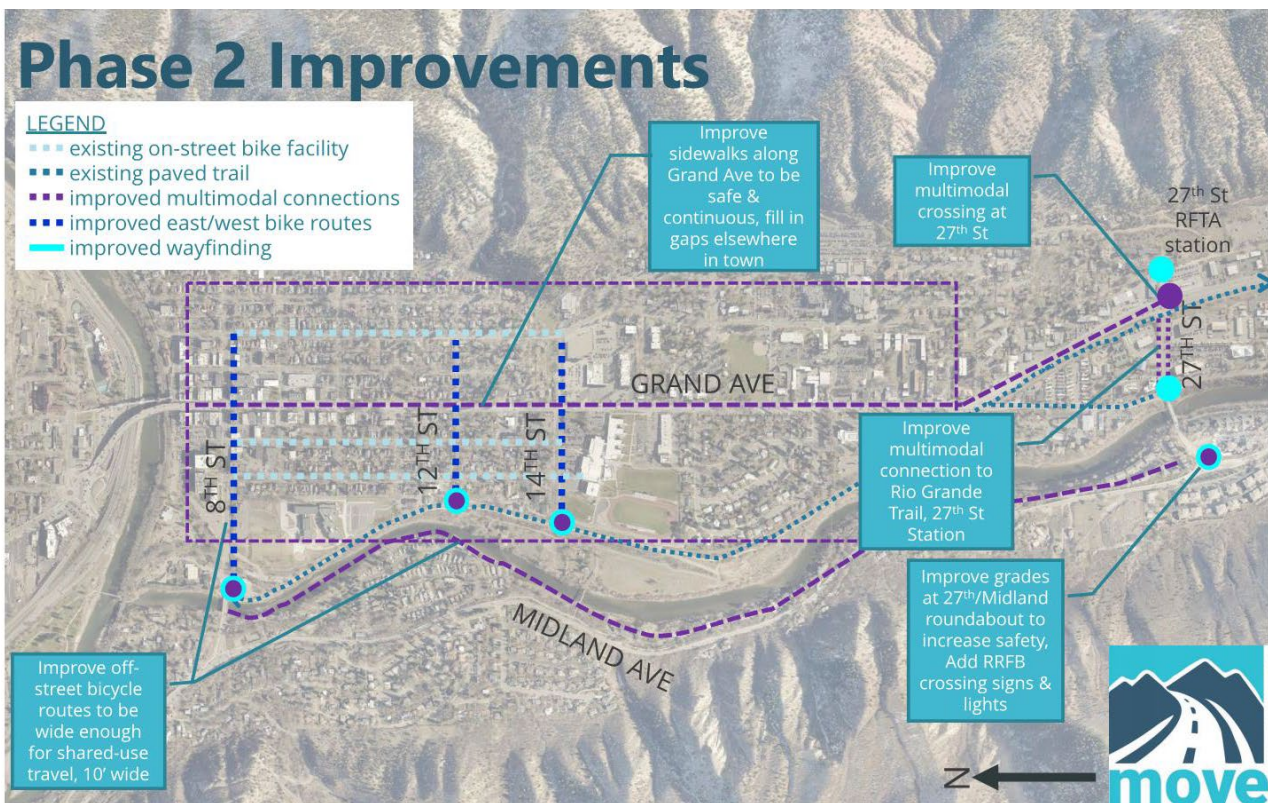


FIGURE 4. PROPOSED PHASE 2 IMPROVEMENTS

Phase 3 Improvements: Coincident with chosen BRT alignment – Estimated improvement costs \$500k+

Grand Ave BRT alignment

Walking or biking along or crossing Grand Avenue under current conditions is not a very comfortable experience. Traffic volumes on Grand Avenue are high, and projected to increase; between 27th Street and 14th Street, those walking or biking have to cross many large commercial parking lots – some spanning full blocks; sidewalk width and condition varies between 27th Street and Downtown; and separation from traffic by a paved or landscaped buffer or parked cars is minimal or nonexistent. There is no dedicated on-street bicycle facility on Grand Avenue, and as it is a 5-lane high-volume corridor, cycling on the road is not ideal. Of those who do bike along Grand Ave, most choose to ride on the sidewalks which are not wide enough to be comfortable shared bike-ped facilities.

The addition of a BRT alignment along Grand Avenue will provide opportunities for people to take the bus close to desired destinations or origins and travel easily by foot or bike to/from the bus. However, there are concerns with this BRT alignment related to bike and pedestrian comfort and safety that should be considered.

Currently, bus stops and bus travel along Grand Avenue are adjacent to the sidewalk, except from 13th Avenue to 8th Avenue, where a parking lane creates separation. Removing the parking lane and replacing it with a Bus Only lane will eliminate this buffer from bus traffic for an additional 5-6 blocks. To minimize conflicts and increase pedestrian comfort, a buffer should be added between the sidewalk and the roadway, where possible, in the form of a landscaped tree zone or paved furnishing zone. This buffer may be used for bus stops and provides a place for snow storage in the winter, in addition to creating a better and safer pedestrian space. This buffer should be a minimum of 3' wide. Sidewalks should be a minimum of 6' wide; if the sidewalk is intended to serve as a multi-use facility for pedestrians and cyclists, it should be a minimum of 8' wide and designated and maintained as a trail facility.

To accommodate and encourage people traveling by bike to and from bus service, it will be critical to evaluate bicycle routes that parallel the BRT alignment and navigate to bus stops and destinations. As mentioned in the Phase 1 recommendations, additional routes in Glenwood Springs should be evaluated to create a connected network of comfortable bicycle routes. These routes, along with a complete and consistent wayfinding program, will help those biking to and from BRT service find their way to bus stops, destinations, and to connecting bike routes to continue their first- and last-mile trips. Bike storage should be provided at all transit stops, with secure racks and adequate lighting.

Rio Grande Corridor BRT alignment

The Rio Grande Trail (RGT) is a highly utilized and valued recreational and commuter corridor for people walking and biking in Glenwood Springs. For this reason, the addition of a BRT alignment along the Rio Grande Corridor must take into great consideration the comfort and safety of those who use the trail.

One of the greatest qualities of the RGT is its separation from vehicular traffic. As much as possible, physical and perceived separation between the trail and BRT alignment should be maintained. Where space allows within the corridor, the trail or BRT alignment should be laid out to provide the greatest amount of horizontal separation. Where right-of-way is constrained, creating a sense of separation with landscaping, fencing, and/or by raising the BRT alignment slightly above the trail corridor will help trail users feel their facility is still separate from the BRT route. These elements of separation will also mitigate added noise from the BRT service from disrupting the natural river trail environment.

Because of its separation from vehicular traffic, the RGT has very few conflicts with traffic and intersections. The addition of a BRT route to the corridor will change this. Safety and visibility of RGT trail users must be a top priority, especially at proposed BRT stops along the corridor and locations where buses enter and exit the trail corridor. The four locations where pedestrians and bicyclists need to cross the Rio Grande BRT corridor should also be carefully considered and planned to allow for maximum visibility; crossing signage, striping, and signals where appropriate; and accessibility. Right of way should be clearly communicated to instruct trail users and bus drivers who has priority at these locations. These crossing locations should be limited, for safety, but also placed at logical locations where trail users will likely be accessing the trail or BRT service – such as at the Glenwood Springs Elementary School, 13th Street (including the driveway), Stubler Drive (behind the Glenwood Springs High School athletic field, and near the vacant Safeway building. Wayfinding along this portion of the Rio Grande Corridor will be critical to communicate proper crossing maneuvers, BRT bus stop and destination information, and traveling from BRT to destinations in Glenwood Springs.

Opportunities to enhance the RGT experience should be explored, to mitigate any disruptions caused by the addition of BRT along the trail. In addition to separation from the bus service, adding amenities such as a soft-surface running trail alongside the paved trail, bike maintenance stations, shade structures, etc. will help maintain the quality of the RGT and encourage its continued use as a recreational corridor after bus service is added.

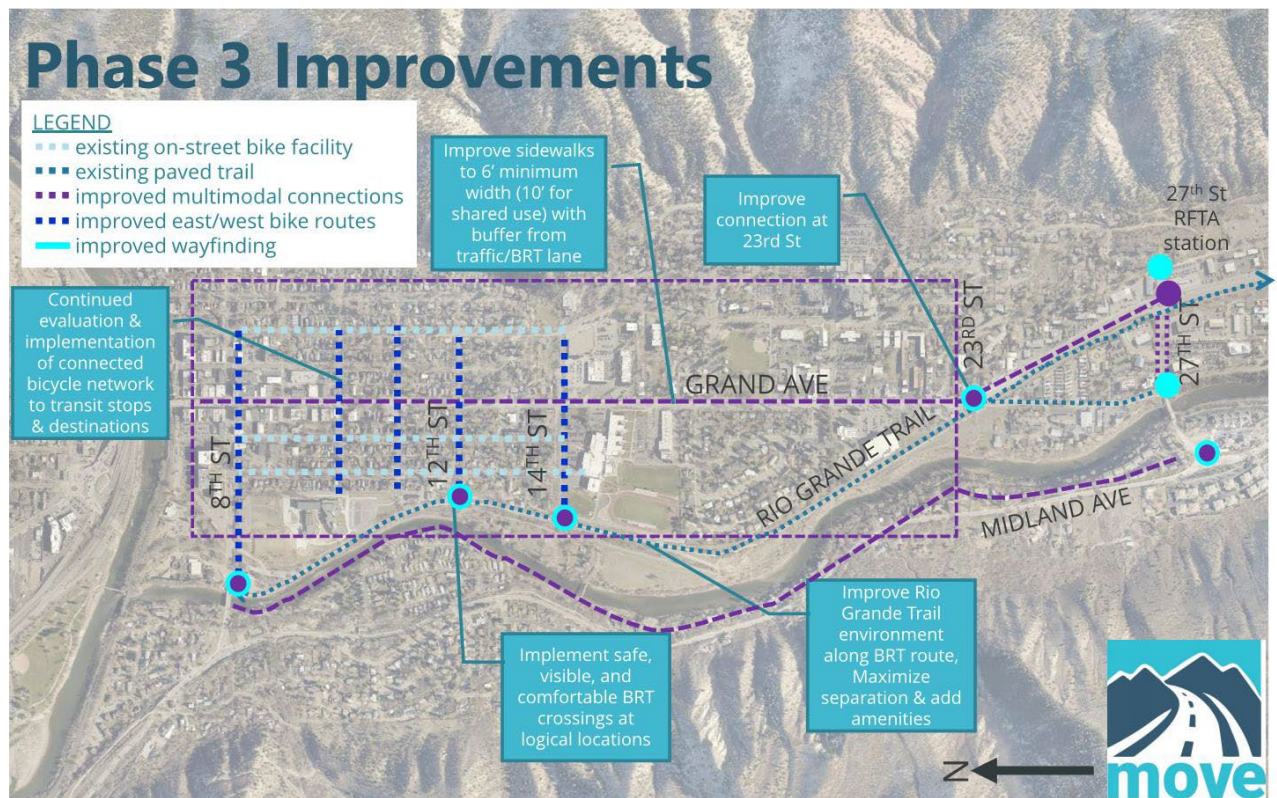


FIGURE 5. PROPOSED PHASE 3 IMPROVEMENTS

Total Multimodal Improvements Cost, Phase 1-3: \$1M+

Many of the recommended improvements described are more holistic rather than singular projects. To create a complete bicycle and pedestrian network, connected to the transit system for comfortable first- and last-mile trips, thoughtful planning and phasing will need to be done to implement the projects. Some project costs would be one-time, like the recommended 27th Street improvements, for example. Other costs would be more spread out and recurring, such as sidewalk and trail maintenance, wayfinding program maintenance, etc. More thorough considerations should be done for more accurate project costs, but all together, the combined cost for all three phases is likely over \$1 million. Federal, state, and other potential funding sources are detailed below.

Project Funding Sources

Identifying and securing future funding is essential to realizing the multimodal projects recommended to accompany transit and future BRT service through Glenwood Springs. Table 1 identifies potential funding sources from federal agencies, state agencies and private foundation sources to support the implementation and long-term maintenance of these recommended improvements. The table makes an initial determination of which of the three phases would be eligible for specific funding source based on current information. When funding is actually pursued, continued viability of the funding source and eligibility requirements will need to be verified by the lead agency or applicant(s). A brief description is provided for each funding source with a link to additional on-line resources below Table 1.

Table 1: Funding Sources by Phase

<i>Funding Sources</i>	<i>Agency</i>	<i>Phase 1 Improvements</i>	<i>Phase 2 Improvements</i>	<i>Phase 3 Improvements</i>
BUILD Grant	USDOT	✓	✓	✓
Highway Safety Improvement Program	CDOT	✓	✓	✓
Recreational Trails Program	FHWA			✓
Transportation Alternatives	CDOT	✓	✓	✓
Recreation Economy for Rural Communities	EPA			✓
Safe Routes to School	CDOT	✓	✓	✓
Connect Initiative	GOCO			✓
Non-Motorized Trails Grant	CPW		✓	✓
Conservation Trust Fund	DOLA			✓
Statewide Multimodal Options Funds	CDOT	✓	✓	✓
Boettcher Foundation			✓	✓
Doppelt Family Trail Development Fund				✓
Activating Places and Spaces Together			✓	✓
The National Fish and Wildlife Foundation Acres for America Grant Program				✓
The International Mountain Bicycling Association Trail Accelerator Grants				✓
People for Bikes Community Grant			✓	✓
AETNA Cultivating Health Community Grant		✓	✓	✓

Federal Funding Sources

Better Utilization Investments to Leverage Development (BUILD) Discretionary Grant

The BUILD grant, formerly known as Transportation Investment Generating Economic Recovery (TIGER) Discretionary Grants Program, allows sponsors at the state and local levels to obtain funding for multi-modal, multi-jurisdictional projects that are more difficult to support through traditional Department of Transportation (DOT) funding programs. Recreational trails are an eligible project category among other active transportation and recreation categories. Projects are evaluated based on merit criteria that include safety, economic competitiveness, quality of life, environmental sustainability, state of good repair, innovation, and partnership. Grants applications are accepted annually in May. (A, B, C)

Funds are programmed by the U.S. Department of Transportation.

<https://www.transportation.gov/BUILDgrants>

Highway Safety Improvement Program (HSIP)

The HSIP provides \$2.4 billion nationally for projects and programs that help communities achieve significant reductions in traffic fatalities and serious injuries on all public roads, bikeways, and walkways. Infrastructure and non-infrastructure projects are eligible for HSIP funds. Pedestrian and bicycle safety improvements, enforcement activities, traffic calming projects, and crossing treatments for active transportation users in school zones are all examples of eligible projects. In order to be eligible for the HSIP, all states must have developed a Strategic Highway Safety Plan (SHSP) that identifies projects or strategies to reduce identified safety problems, and evaluate this SHSP on a regular basis. All HSIP projects must be consistent with the state's Strategic Highway Safety Plan (SHSP) of achieving zero deaths on Colorado roads. Funds are awarded on an annual basis from the Federal Highway Administration and the Colorado Department of Transportation. (A, B)

Funds are programmed by the Colorado Department of Transportation.

<https://www.codot.gov/library/traffic/hsip>

Recreational Trails Program (RTP)

The RTP provides funds to the States to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized recreational trail uses. The RTP is an assistance program of the Department of Transportation's Federal Highway Administration. Federal transportation funds can be used for any purposes that benefit recreation including hiking, bicycling, in-line skating, equestrian use, cross-country skiing, snowmobiling, off-road motorcycling, all-terrain vehicle riding, four-wheel driving, or using other off-road motorized vehicles. These funds are available for both paved and unpaved trails, but may not be used to improve roads for general passenger vehicle use or to provide shoulders or sidewalks along roads. Eligible projects must support the goals of the State Comprehensive Outdoor Recreation Plan and the Strategic Plan of the State Trails Program. (B, C)

Funds are programmed by Colorado Parks and Wildlife

https://www.fhwa.dot.gov/environment/recreational_trails/

Transportation Alternatives (TA)

The Fixing America's Surface Transportation (FAST) Act recently replaced the former Transportation Alternatives Program (TAP) with set-aside funds under the Surface Transportation Block Grant Program (STBG). For administrative purposes, the Federal Highway Administration (FHWA) refers to these funds as TA Set-Aside. Projects eligible for TA Set-Aside funds include on-and off-road active transportation facilities, improvements to non-driver access to transit, recreational trails, and safe routes to school.

Funds are programmed by the Colorado Department of Transportation.

<https://www.codot.gov/programs/planning/documents/grants/tap/TAP-guidelines.pdf>

Recreation Economy for Rural Communities

The Environmental Protection Agency's Recreation Economy for Rural Communities program is a planning assistance program to help communities develop strategies and an action plan to revitalize their downtowns through outdoor recreation. Outdoor recreation activities have become increasingly popular across the United States and tend to aid with the conservation of natural lands and forests. This program enables communities to strategically invest in outdoor recreational opportunities that create jobs, foster environmentally friendly community development, revitalize downtowns, and offer new opportunities for people to connect with the natural world. Eligible projects include:

- Ensuring local residents, including young people, have connections and opportunities related to nearby outdoor assets to foster community pride, good stewardship, and local economic benefits.
- Developing or expanding trail networks to attract overnight visitors and new businesses and foster use by local residents.
- Developing in-town amenities, such as broadband service; housing; or shops, restaurants, or breweries, to serve residents and attract new visitors and residents with an interest in nearby outdoor assets.
- Marketing Main Street as a gateway to nearby natural lands to capture and amplify outdoor recreation dollars.
- Developing a community consensus on the management of outdoor assets to reduce potential conflicts and ensure sustainable use of resources. (B, C)

Funds are programmed by the Environmental Protection Agency.

<https://www.epa.gov/smartgrowth/recreation-economy-rural-communities-2019-application>

Safe Routes to School (SRTS)

The SRTS program provides a source of funding for education, enforcement, evaluations, and infrastructure improvements (e.g. sidewalks, bike parking, etc.) that encourage elementary and middle

school students to walk or bike to school. The Colorado Department of Transportation (CDOT) administers these programs using Federal Surface Transportation Block Grant Set-Aside funds and HSIP Program funds. Eligible entities include local governments, regional transportation authorities, transit authorities, natural resource or public land agencies, and school districts. Funds are available for SRTS programs that benefit elementary and middle school children in Kindergarten through 8th grade. Eligible projects must be within a 2-mile radius of the identified schools. (A, B, C)

Funds are programmed by the Colorado Department of Transportation

https://www.codot.gov/inf_fy19srts_instructionsandguidelines.pdf

Colorado State Agencies

Colorado Connect Initiative

GOCO's Connect Initiative is a five-year strategy aimed at increasing access to outdoor experiences through the construction of non-motorized trails of local, regional, and statewide significance. This program aims to increase access to the outdoors in Colorado communities by filling trail gaps, building new trails, and providing better walkable and bikeable access for youth and families. Applicants may request up to \$2 million for trail construction projects. Eligible grantees include municipalities, counties, and Title 32 special park and recreation districts that receive Conservation Trust Fund monies from the Department of Local Affairs. Projects must be primarily for trail construction; however, land acquisitions may be considered with staff approval. There is no requirement for surface type. Projects that present an exciting opportunity to leverage partnerships and outside funding, connect important trail segments, and are shovel-ready may score more competitively. (B, C, D)

Funds are programmed by Great Outdoors Colorado.

<https://goco.org/grants/apply/connect-initiative-grants>

Non-Motorized Trails Grant

Colorado Parks and Wildlife (CPW) funds several types of trail grants including large recreational trail grants, small recreational trail grants, trails planning, and trail support grants. This program is a partnership among Colorado Parks and Wildlife; Great Outdoors Colorado; the Colorado Lottery; the federal Recreational Trails Program; and the Land and Water Conservation Fund. To be eligible for the Non-Motorized Trails Grant, projects must include new trail or trailhead construction; maintenance, re-route, or reconstruction of existing trails; enhancements or upgrades to existing trailheads; trail and trailhead system planning; building and enhancing support organizations; or acquiring land or easements. Projects are required to have at least a 30% match, and all properties on which the funded projects take place must be under control of the grantee. (B, C)

Funds are programmed by Colorado Parks and Wildlife.

<https://cpw.state.co.us/aboutus/Pages/TrailsGrantsNM.aspx>

Conservation Trust Fund (CTF)

Colorado's Department of Local Affairs distributes Conservation Trust Funding to local governments, including counties, cities, towns, and Title 32 special districts that provide park and recreation services in their plans. These funds are the portion of Colorado Lottery proceeds constitutionally mandated to be distributed directly to local governments, based on population, for acquiring and maintaining parks, open space, and recreational facilities. CTF funds are distributed on a quarterly basis and can be used for numerous conservation and recreational uses, including developing parks and open space and preserving floodplains, greenbelts, and scenic areas for any scientific, historic, scenic, or recreational use. (B, C)

Funds are programmed by the Colorado Department of Local Affairs.

<https://cdola.colorado.gov/conservation-trust-fund-ctf>

Colorado Multimodal Options Fund

The Colorado Multimodal Options Fund (MMOF) seeks to fund multimodal transportation projects and operations throughout the state because, in addition to the general benefits that it provides to all Coloradans, a complete and integrated multimodal transportation system:

- (a) Benefits seniors by making aging in place more feasible for them;
- (b) Benefits residents of rural areas by providing them with flexible public transportation services;
- (c) Provides enhanced mobility for persons with disabilities; and
- (d) Provides safe routes to schools for children.

Eligible projects are selected to receive local Multimodal Options Funds (MMOF) by the Regional Planning Commissions (RPC) of the 15 Transportation Planning Regions (TPRs). (A, B, C)

Funds are programmed by the Colorado Department of Transportation

<https://www.codot.gov/programs/planning/grants/mmof-local>

Foundations, Corporations, and Associations

Boettcher Foundation

The Boettcher Foundation champions excellence and invests in high-potential organizations that are developing new ideas that can drive Colorado forward. They support organizations and initiatives that strive to innovate, impact and improve the quality of life for Coloradans. They prioritize capital building or community infrastructure projects for Colorado through "a lens of rural depth." Letters of Inquiry can be submitted any time of the year. (A, B, C, D)

Funds are programmed by the Boettcher Foundation.

www.boettcherfoundation.org

Doppelt Family Trail Development Fund

Launched in 2015 by the Rails-to-Trails Conservancy (RTC), the Doppelt Family Trail Development Fund supports organizations and local governments that are implementing projects to build and improve multi-use trails. RTC awards approximately \$85,000 per year to several qualifying projects through a competitive process. While applications for projects on rail-trails and rails-with-trails will be given preference, rail-trail designation is not a requirement. However, the trail must serve or plan to serve multiple user types, such as bicycling, walking, and hiking, and be considered a trail, greenway, multi-use trail, or shared use path. In addition, the program must advance trail development, help establish corridor connections, or improve current conditions on the trail. Grant applications are accepted annually in January. (B, C, D)

Funds are programmed by the Rails-to-Trails Conservancy.

<https://www.railstotrails.org/our-work/grants/doppelt/>

Activating Places and Spaces Together

This funding opportunity, administered by the Colorado Health Foundation, supports locally-defined, place-specific efforts to get people outdoors and actively engaged in their neighborhoods – together. The goal of the funding opportunity is to help activate existing infrastructure in public places that contributes to a community's overall health through residential usage and positive experiences. Grant funds support the costs associated with project planning and implementation, and provides technical assistance for community engagement, communications, and marketing, for up to one year. Eligible projects must reflect the Foundation's cornerstones of serving low-income Coloradan residents who have historically had less power or privilege and doing everything with the intent of creating health equity. (A)

Funds are programmed by the Colorado Health Foundation.

<https://www.coloradohealth.org/funding-opportunities/funding-opportunity-activating-places-and-spaces-together>

The National Fish and Wildlife Foundation Acres for America Grant Program

The Acres for America grant program is a joint public-private partnership between the National Fish and Wildlife Foundation and Walmart. This program works to conserve fish and wildlife habitat, protect public lands, provide access to outdoor recreation, and ensure the future of local economies that depend on outdoor recreation, forestry, or ranching. Eligible grantees include non-profit 501c organizations, state government agencies, local governments, municipal governments, Indian tribes, and education institutions. (B, C, D)

Funds are programmed by the National Fish and Wildlife Foundation.

<https://www.nfwf.org/programs/acres-america>

International Mountain Bicycling Association (IMBA) Trail Accelerator Grant

IMBA provides Trail Accelerator Grants to help grow the quantity and quality of mountain bike trail communities. These grants provide a jump-start to communities that have the interest and political support to develop trail systems, but need assistance to get projects up and running. A Trail Accelerator grant offers awardees professional trail planning and consultation services to launch their trail development efforts, which can often leverage additional investment from local, regional, and national partners. (C)

Funds are programmed by the International Mountain Bicycling Association.

<https://www.imba.com/trails-for-all/trail-accelerator-grants>

People for Bikes Community Grant

The PeopleForBikes Community Grant Program supports bicycle infrastructure projects and targeted advocacy initiatives that make it easier and safer for people of all ages and abilities to ride. This program accepts grant applications from non-profit organizations that focus on bicycling, active transportation, or community development; city or county agencies or departments; and state or federal agencies working locally. Requests must support a specific project or program (i.e. grant funds cannot be used for general operating costs), such as:

- Bike paths, lanes, trails, and bridges
- Mountain bike facilities
- Bike parks and pump tracks
- BMX facilities
- End-of-trip facilities such as bike racks, bike parking, bike repair stations and bike storage

PeopleForBikes funds up to \$10,000 for engineering and design work, construction costs including materials, labor, and equipment rental, and reasonable volunteer support costs. This program does not require a specific percentage match, but does look at leverage and funding partnerships very carefully. (A, B, C)

Funds are programmed by People for Bikes.

<https://peopleforbikes.org/grant-guidelines/>

Cultivating Healthy Communities (CHC) Grant Program

The CHC grant program is geared specifically towards nonprofit organizations that work with underserved, low-income, and minority populations in the contiguous United States. CHC seeks to

catalyze measurable improvements in community health outcomes by funding projects that address the social determinants of health and participants' physical, mental, and social well-being. Eligible projects must work to accomplish the following goals:

- Improve the walkability, bikeability, and use of public spaces in a community
- Increase collaboration between local law enforcement and community members to proactively address immediate public safety issues
- Decrease exposure to air and water contaminants
- Increase healthy behaviors, such as exercise and eating healthy goods
- Increase access to healthy foods through the development of new or enhanced retail options (A, B, C)

Funds are programmed by AETNA.

<https://www.aetna-foundation.org/grants-partnerships/grants/cultivating-healthy-communities-rfp.html>

City of Glenwood Springs Transportation Commission
Comments and recommendations
MOVE study – pedestrian and bicycle components

February 2, 2022

Observations and responses to bicycle and pedestrian assessments and recommendations in the MOVE final report (August 2021) and in accompanying Appendix D – *Pedestrian and Bicycle Improvements Plan* (April 2021)

General

- In general, the observations and recommendations for bicycle and pedestrian travel, variously included in the report and appendix, are accurate and well described. Some proposed implementation details need refinement.
- Success of bicycle and pedestrian improvements will be affected by, and should be integrated with, details presented in other MOVE report categories, particularly traffic/safety, transit, and BRT alignment.

Existing conditions

- Both the report and the appendix accurately highlight inadequacies at some locations in the existing Glenwood Springs walking and bicycling infrastructure network, including inadequate or non-existing sidewalks (as highlighted in previous studies), bicycle-pedestrian network gaps, need for more bicycle parking.
- The documents also highlight successful and popular routes that generally are functioning well, including (including multi-use Rio Grande, West Midland, and Atkinson trails, and pavement-marked bicycle lanes).

Infrastructure improvements

- Bicycle-pedestrian improvement recommendations are helpfully organized in three phases, with increasing levels of cost and complexity.
- That phased outline includes a useful list of needed improvements, but the list a) is not complete, and b) needs to be better integrated with the city's transportation capital projects priority rankings.
- Design details presented for some improvements need to be further refined and not necessarily implemented as described—configurations for east-west bicycle routes *e.g.*
- Most of the improvements listed are needed, and can be implemented, independent of decisions or work on a BRT extension. Prioritized work on such improvements should begin without delay.
- Changes in municipal design standards are needed (minimum widths for sidewalks and multiple-use paths, crosswalk configurations, buffers from roadways, accommodations for electric-assist bicycles *e.g.*)

BRT route selection

- The selection of a preferred or final route for bus rapid transit (BRT) extension must be made very carefully in general, and with particular attention to potential effects (good and bad) on bicycle and pedestrian travel (*see p. 53*).

Responsibilities, implementation

- Appendix D is entitled a plan but does not delegate or otherwise clarify responsibility for funding and implementing that plan, nor does it include a recommended or anticipated calendar for implementation.
- List of potential funding sources is helpful. The city should aggressively pursue funding for recommended multimodal improvements and incentives.



City Council
STAFF REPORT
City of Glenwood Springs
February 3, 2022

Agenda Item:	Youth Mental Health
Action Requested:	Discuss the joint proposal from YouthZone and the Roaring Fork School District for \$335,000 to sustain mental health services at Glenwood Springs Elementary School, Sopris Elementary School, Riverview School, Two Rivers School, and Yampah School and provide funding for an additional mental health provider at YouthZone dedicated to youth and families in Glenwood Springs.
Department:	City Administration
Strategic Goals:	Protect and Preserve our Quality of Life
Background Info:	The residents of Glenwood Springs approved a marijuana excise tax on both retail and growing operations in 2017. In 2018, the City funded \$75,000 to Mind Springs Health for school counseling and \$25,000 for Community Center passes for youths when school is not in session. Funding for counseling was focused on St. Stephens, Riverview, and Yampah. This fund typically brings in around \$400,000 and is also used to support the Police and Fire Department. A cigarette tax was passed in 2019 that was focused on enforcement and mental health issues. This funding is budgeted to raise \$800,000 in 2022. Half of this amount is budgeted in 2022 for a detox facility and mental health issues in the community. All together, the 2022 budget has \$500,000 included for mental health/detox services. While City Council was very supportive of funding mental health services in schools, staff was directed to improve the existing program if possible. The residents of Glenwood Springs approved a marijuana excise tax on both retail and growing operations in 2017. In 2018, the City funded \$75,000 to Mind Springs Health for school counseling and \$25,000 for Community Center passes for youths when school is not in session. Funding for counseling was focused on St. Stephens, Riverview, and Yampah. This fund typically brings in around \$400,000 and is also used to support the Police and Fire Department. A cigarette tax was passed in 2019 that was focused on enforcement and mental health issues. This funding is budgeted to raise \$800,000 in 2022. Half of this amount is budgeted in 2022 for a detox facility and mental health issues in the community. All together, the 2022 budget has \$500,000 included for mental health/detox services. While City Council was very supportive of funding mental health services in schools, staff was directed to improve the existing program if possible. In 2021, the City of Glenwood Springs provided \$120,000 to the Roaring Fork Schools and \$30,000 to YouthZone to increase access to school-based mental health services for nearly 800 students at Glenwood Springs Elementary School and Sopris Elementary School. With that funding, Roaring Fork Schools contracted a mental health clinician from the Hope Center who is providing full-time direct services to students in the schools. Based upon this partnership, staff pulled together Mind Springs, YouthZone and the Roaring Fork School District to work towards a joint program to better serve youths in Glenwood Springs. Mind Springs informed the city that it would no longer provide mental health services for youths in schools in 2022. For several months YouthZone and the School District worked

together to come up with a joint proposal for City Council's consideration. The proposal is for \$335,000 to sustain mental health services at Glenwood Springs Elementary School, Sopris Elementary School, Riverview School, Two Rivers School, and Yampah School and provide funding for an additional mental health provider at YouthZone dedicated to youth and families in Glenwood Springs. This amount does not include the \$25,000 set aside each year for passes at the Community Center.

Garfield County successfully applied for a state grant that will cover the build out of the detox facility and the last quarter of operations in 2022. Staff is recommending that the \$75,000 that was budgeted in the General Fund for Mind Springs be allocated to the project and the remaining amount comes from releasing \$260,000 of the \$400,000 held in reserves from the Tobacco Tax Fund for youth mental health and detox. The Available Fund Balance in the Tobacco Tax fund will remain at an estimated \$170,000 at the end of 2022.

This proposal will be on the evening agenda for City Council's consideration.

Issues:

Staff has informed YouthZone and the School District that it is imperative that they continue to seek additional sources of funding especially as state funding dries up. The City cannot fully fund this program in its entirety. However, the youth mental health crisis is growing in Colorado and services are required now to support families.

Staff Recommendation:

This item will be on the evening agenda for City Council's consideration.



School- and community-based mental health services Request for City of Glenwood Springs funding 1.3.22

In 2021, the City of Glenwood Springs provided \$120,000 to the Roaring Fork Schools to increase access to school-based mental health services for nearly 800 students at Glenwood Springs Elementary School and Sopris Elementary School. With that funding, Roaring Fork Schools contracted a mental health clinician from the Hope Center who is providing full time direct services to students in the schools. In just the first three months of the 21/22 school year, the Hope Center clinician working at SES and GSES funded by the city of Glenwood Springs worked with over 42 students, provided 175 socio-emotional check-ins, and facilitated 33 family sessions.

The City of Glenwood Springs also provided \$30,000 to YouthZone to support increasing services with Mental Health and Substance intervention and education in the City of Glenwood Springs. This funding came as YouthZone experienced heightened Mental Health and Substance Support needs in clients referred. During the 20/21 year, more than 71% of clients referred were in need of Mental Health and/or Substance Use support. With this funding, YouthZone subsidized the cost to serve 134 clients in Glenwood Springs. Since July of 2021, Youth Zone received 24 referrals from the Roaring Fork Schools (last school year, there was 1 referral from the RFSD).

The Roaring Fork Schools and Youth Zone have utilized funding to increase access to school-based (RFSD) and out of school mental health and substance support services (Youth Zone) for children and youth in Glenwood Springs. The City of Glenwood Springs' contributions are part of a much larger effort to ensure children, youth and families have access to mental health services.

Current staffing in the City of Glenwood Springs includes:

Glenwood Springs High School - 2 Hope Center mental health clinicians funded by Colorado Department of Education (CDE) School Health Professionals Grant and GSHS. *Funding sunsets June, 2023.*

Glenwood Springs Middle School - 1 Hope Center mental health clinician funded by Colorado Department of Education (CDE) School Health Professionals Grant and GSMS. *Funding sunsets June, 2023.*

Glenwood Springs Elementary and Sopris Elementary - 1 Hope Center mental health clinician funded by the City of Glenwood Springs. *Funding uncertain after 2021.*

Riverview School - 1 Hope Center mental health clinician funded by Colorado Department of Education (CDE) School Health Professionals Grant and RVS. *Funding sunsets June, 2023.*

Two River Community School - 1 Hope Center mental health clinician funded through grants, donations, fundraising and internal dollars. *Funding uncertain after June, 2022.*

Yampah Mountain High School - .5 Mind Springs mental health clinician funded by the City of Glenwood Springs. *Funding uncertain after 2021.*

YouthZone Glenwood Springs Youth Advocate - 1 Youth Advocate dedicated to the City of Glenwood Springs funded by YouthZone through grants, donations and fundraising .

Outcomes for these investments are significant. Community mental health providers in the schools have stabilized schools' crisis response to suicide and threat, provided collaborative consultation for school-based mental health teams and most importantly, provided direct services to hundreds of students. With partners like the Hope Center, schools are supported by an experienced organization with the capacity to provide clinical support, expertise and supervision for their mental health professionals - something our schools (experts in education) are not as good at. Mental and behavioral wellness for youth leads to better decision making,

stronger academic outcomes, and reduced substance use and abuse. Investment in comprehensive, integrated mental and behavioral wellness has the potential to lower youth substance use rates, to interrupt pathways to substance use and to strengthen healthy skill development. Positioning providers in the schools increases access, supports continuity of care and strengthens critical relationships between students, families, schools and community mental health providers.

Community-based mental health providers at YouthZone provide additional levels of support for families and youth outside of schools. Intervention at YouthZone is designed to be more long-term and to provide more wrap around support for those whose needs are best met by non-school-based providers. Services are wide-ranging and include assessment, advocacy, mental health and substance use support, counseling, parent education, life skills groups and more. Additionally, YouthZone works to reduce barriers for youth and families in need by providing flexible and timely scheduling, fee waivers and scholarships, translation and interpretation, and meeting places up and down the Roaring Fork Valley.

In this request, Roaring Fork Schools and YouthZone seek to increase funding from the City of Glenwood Springs to stabilize existing services (especially at GSES, SES, Yampah and Two Rivers Community School) and increase community-based services by staffing an additional mental health provider at YouthZone dedicated to serving youth and families in Glenwood Springs.

Glenwood Springs project budget:

\$260,000 to sustain mental health providers at Two Rivers, Yampah, GSES, SES and Riverview School.

\$75,000 to staff a mental health provider at YouthZone dedicated to youth and families in Glenwood Springs.

\$335,000 Total Request

Additional information:

- Please contact RFSD chief student and family services, Anna Cole, acole@rfschools.com or YouthZone executive director, Jami Hayes, jhayes@youthzone.com



City Council
STAFF REPORT
City of Glenwood Springs
February 3, 2022

Agenda Item: January 19 Special Council Meeting Minutes

Action Requested: January 19, 2022 Specialy City Council Meeting Minutes

Department: City Clerk

Strategic Goals: Provide Efficient and Responsive City Government

Background Info:

Issues:

Staff Recommendation:



MINUTES
CITY OF GLENWOOD SPRINGS
SPECIAL CITY COUNCIL MEETING
JANUARY 19, 2022
VIRTUAL MEETING ONLY
6:00 PM

Note: Official meeting minutes are located on the City website via YouTube video at the following link: <https://www.youtube.com/user/GlenwoodSprings1885/videos>. The times in agenda items indicate approximately where the item can be found on the YouTube video timeline.

SPECIAL SESSION

:02 Roll Call

Present: Mayor Godes, Mayor Pro-Tem Willman, Councilor Wussow, Councilor Kaup, Councilor Stepp, and Councilor Hershey. Also present were Debra Figueroa, City Manager; Jenn Ooton, Asst. City Manager, Ryan Muse, City Clerk and Public Information Officer, Bryana Starbuck.

:02 Pledge of Allegiance

Mayor Godes led the Pledge.

:02 Airport Listening Session Formula

Public Information Officer Bryana Starbuck presented.

Comments were made by Mayor Godes, Councilor Kaup, City Manager Debra Figueroa, City Engineer Terri Partch, Mayor Pro-Tem Willman, Councilor Hershey, Meeting Facilitator Michael Hughes, Councilor Stepp, and Councilor Wussow.

0:32 Mayor Godes opened public comment.

Public comments were taken.

0:44 Mayor Godes closed public comment.

Comments were made by Councilor Kaup, City Manager Debra Figueroa, Public Information Officer Bryana Starbuck, Mayor Pro-Tem Willman, Councilor Hershey, Councilor Stepp, Mayor Godes, and Councilor Wussow.

1:04 Mayor Pro-Tem Willman moved, seconded by Councilor Kaup, one, to hold two public sessions, one at the Community Center and one at Sopris Elementary School on different nights. Two, to have virtual participation or the ability the same night for people to view the boards and vote on options. Three, in voting, people must state whether they are a eligible to vote in the City of Glenwood.

Comments were made by Councilor Kaup, Mayor Pro-Tem Willman, Mayor Godes, City Manager Debra Figueroa, Councilor Stepp, Public Information Officer Bryana Starbuck, Councilor Kaup, and Councilor Wussow.

1:13 Mayor Pro-Tem Willman amended motion, seconded by Councilor Kaup, one, to hold one public session, at Sopris Elementary School, if available, but if not, to hold the public session at the Community Center. Two, to have virtual option for participation, and three, there be some mechanism decided by City staff to give clear feedback of resident versus non-resident input.

Motion passed unanimously.

1:14 Mayor Pro-Tem Willman moved, seconded by Councilor Stepp, that the board that presents on immediate airport safety and operational considerations, includes for the items of fuel, fencing, ground maintenance and communications, either the cost that we have already committed, or the estimated cost listed next to those items.

Comments were made by Mayor Godes, and Mayor Pro-Tem Willman.

Motion passed unanimously.

1:16 Mayor Pro-Tem Willman moved, seconded by Mayor Godes, that the board weighing options would include the option that if we can't get grant funding to pay for it, should we spend City funds for those purposes.

Comments were made by Councilor Stepp, Mayor Godes, Councilor Hershey, Mayor Pro-Tem Willman, Councilor Wussow, and Councilor Kaup.

1:31 Mayor Pro-Tem Willman amended motion, seconded by Mayor Godes, that if no outside funding is available from local, County, State or Federal sources, how would you propose the City pay for the tunnel.

Ayes: Willman, Godes

Nays: Step, Hershey, Kaup, Wussow

Motion failed 4-2

1:32 Councilor Stepp moved, seconded by Mayor Godes, to add the option of no runway, but to include a helipad, to the board list that includes shorten runway, move the runway north and leave the runway as it is.

Comments were made by Councilor Kaup, Mayor Godes, Councilor Stepp, Public Information Officer Bryana Starbuck, Mayor Pro-Tem Willman, and Councilor Wussow.

1:40 Councilor Stepp amended motion, seconded by Mayor Godes, to add the option of no runway or other opportunity, with community input, to the board that includes shorten runway, move the runway north and leave the runway as it is.

Ayes: Kaup, Wussow, Stepp, Willman, Godes

Nays: Hershey

Motion passed 5-1

Councilor Hershey exited the meeting.

Comments were made by Councilor Kaup, City Manager Debra Figueroa, Public Information Officer Bryana Starbuck, Meeting Facilitator Michael Hughes, Mayor Pro-Tem Willman, and Mayor Godes.

1:52 Councilor Wussow Moved, seconded by Mayor Godes, to hold the listening session on February 24th from 5:00 pm to 7:30 pm

Comments were made by Councilor Stepp, Councilor Kaup.

1:53 Councilor Wussow amended motion, seconded by Mayor Godes, to hold the listening session on February 24th from 5:30 pm to 8:30 pm

Motion passed unanimously.

1:55 Adjournment

3:22 Mayor Pro-Tem moved, seconded by Mayor Godes, to adjourn.

Motion passed unanimously.



City Council
STAFF REPORT
City of Glenwood Springs
February 3, 2022

Agenda Item: January 20 Council Meeting Minutes

Action Requested: January 20, 2022 City Council Meeting Minutes

Department: City Clerk

Strategic Goals: Provide Efficient and Responsive City Government

Background Info:

Issues:

Staff Recommendation:



MINUTES
CITY OF GLENWOOD SPRINGS
REGULAR CITY COUNCIL MEETING
JANUARY 20, 2022
VIRTUAL MEETING ONLY
6:15 PM

Note: Official meeting minutes are located on the City website via YouTube video at the following link: <https://www.youtube.com/user/GlenwoodSprings1885/videos>. The times in agenda items indicate approximately where the item can be found on the YouTube video timeline.

REGULAR SESSION

:02 Roll Call

Present: Mayor Godes, Mayor Pro-Tem Willman, Councilor Wussow, Councilor Kaup, Councilor Davis, Councilor Stepp, and Councilor Hershey. Also present were Debra Figueroa, City Manager; Steve Boyd, Chief Operating Office, Jenn Ooton, Asst. City Manager, Ryan Muse, City Clerk, Matt Langhorst, Director of Public Works, Yvette Gustad, Finance Director, Brian Smith, Parks and Recreation Director, and Karl Hanlon, City Attorney.

:02 Pledge of Allegiance

Mayor Godes led the Pledge.

:02 Agenda Changes or Conflicts

No agenda changes or conflicts

:02 Citizens Appearing Before Council

No citizen comments were made.

:02 Council Comments

Comments were made by Councilor Hershey, Mayor Pro-Tem Willman, Councilor Wussow, and Mayor Godes.

:04 Mayor Pro-Tem Willman moved, seconded by Councilor Wussow, to hold a work session at the first meeting in February, to discuss issues including whether or not to change the way the Mayor is elected, and to allow public input.

Motion passed unanimously.

Comments were made by Councilor Kaup, City Manager Debra Figueroa, Councilor Stepp, Mayor Godes, City Engineer Terri Partch, Mayor Pro-Tem Willman, and Councilor Kaup.

:20 Consent Agenda

:20 Councilor Stepp moved, seconded by Mayor Godes, to approve the consent agenda.

Motion passed unanimously.

:21 Planning and Zoning Commission Appointments

:21 Mayor Pro-Tem Willman moved, seconded by Mayor Godes, to appoint Pete Waller, Amy Connerton as the Planning and Zoning representatives bringing them from alternative to full-time members, and appoint James Woodrow Hardcastle Jr. and Mitchell Weimer as alternates, with terms starting in February.

Motion passed unanimously.

:22 Uinta Basin Railway

Center for Biological Diversity representative Deeda Seed, presented.

Comments were made by Councilor Kaup, Councilor Stepp, Mayor Pro-Tem Willman, City Attorney Karl Hanlon, Councilor Davis, Mayor Godes and Councilor Wussow.

:45 Councilor Wussow moved, seconded by Councilor Kaup, to sign, as a Council, the letter in the Council packet and submit it to whatever groups or agencies deemed appropriate.

Comments were made by Councilor Kaup

:45 Councilor Wussow amended motion, seconded by Councilor Kaup, to appoint Councilor Kaup and Mayor Godes to revise the letter to include Councilor Kaup's recommendations and send it to whomever is deemed appropriate.

Comments made by Mayor Godes, Councilor Kaup, Mayor Pro-Tem Willman Councilor Wussow, and Councilor Stepp.

Ayes: Godes, Willman, Wussow, Kaup, Davis, Stepp

Nays: Hershey

Motion passed 6-1

:48 Mayor Pro-Tem Willman moved, seconded by Councilor Wussow, to direct Planning and Zoning to look at adopting regulations or legislation and make a recommendation to Council

under House Bill 74-1041, with some priority, as an important consideration that Council should be looking at this and other potential projects and adopt appropriate guidelines.

Ayes: Godes, Willman, Wussow, Kaup, Davis, Stepp

Nays: Hershey

Motion passed 6-1

:50 Citizen's Petition on Noise Reduction

Glenwood Springs citizen Robin Miller, presented.

Comments were made by Mayor Godes, Glenwood Springs citizen Robin Miller, Councilor Stepp, City Manager Debra Figueroa, City Attorney Karl Hanlon, Mayor Pro-Tem Willman, City Engineer Terri Partch, Councilor Kaup, Councilor Davis, Director of Public Works Matt Langhorst, Councilor Wussow and Councilor Hershey.

1:24 Mayor Godes moved, seconded by Councilor Kaup, to make a call and try to engage CDOT on the possibility of lower the speed limits in the Highway 82 corridor until the end of City limits and to incorporate Councilor Wussow's comments and engage CDOT in the pursuit of lower speeds and less sound.

Comments made by Councilor Kaup

1:24 Mayor Godes amended motion, seconded by Councilor Kaup, to direct staff to make a call and try to engage CDOT on the possibility of lower the speed limits in the Highway 82 corridor until the end of City limits and to incorporate Councilor Wussow's comments and engage CDOT in the pursuit of lower speeds and less sound.

Ayes: Kaup, Wussow, Godes, Davis, Stepp

Nays: Hershey, Willman

Motion passed 5-2

1:27 Direction on Request for Proposals for South Canyon

Parks and Recreation Director Brian Smith, and Hughes Collaboration representative Michael Hughes, presented.

Comments were made by Mayor Pro-Tem Willman, Hughes Collaboration representative Michael Hughes, Councilor Hershey, Councilor Stepp, Councilor Wussow, Mayor Godes, and Councilor Kaup.

1:46 Mayor Godes moved, seconded by Councilor Kaup, to follow the staff recommendation which is to implement the recommendations for next steps contained in the summary of public process.

Comments were made by Councilor Kaup and Parks and Recreation Director Brian Smith, and Councilor Kaup.

Ayes: Willman, Wussow, Godes, Stepp, Kaup, Davis

Nays: Hershey

Motion passed 6-1

1:49 Recess

1:58 Public Improvement Fee Extension Support

Assistant City Manager Jenn Ooton, Director of Public Works Matt Langhorst, and Glenwood Meadows Shopping Center owners representative Steve Shoflick, presented.

Comments were made by Mayor Godes, City Attorney Karl Hanlon, Glenwood Meadows Shopping Center owners representative Steve Shoflick, Chief Operating Office Steve Boyd, Councilor Kaup, Councilor Wussow, Director of Public Works Matt Langhorst, City Manager Debra Figueroa, Councilor Stepp, and Mayor Pro-Tem Willman.

2:39 Mayor Godes opened for public comment.

Public comment was made.

2:46 Mayor Godes closed public comment.

Comments were made by Mayor Godes, Councilor Hershey.

2:46 Mayor Godes moved, seconded by Councilor Stepp, to deny the extension of this Public Improvement Fee and to allow the existing Public Improvement Fee to sunset as promised in 2025.

Comments were made by Councilor Stepp, City Attorney Karl Hanlon, City Manager Debra Figueroa, Councilor Kaup, Mayor Pro-Tem Willman, Councilor Wussow, and Councilor Davis.

Ayes: Godes

Nays: Kaup, Willman, Wussow, Davis, Stepp, Hershey

Motion failed 6-1

3:02 Councilor Davis moved, seconded by Councilor Wussow, to table this decision and conversation for sixty days to allow staff and developer/owner to bring the Council more clarity, transparency, detailed information.

Comments were made by Mayor Pro-Tem Willman, Councilor Kaup, and Councilor Stepp.

Ayes: Hershey, Davis, Wussow, Willman, Stepp, Kaup

Nays: Godes

Motion passed 6-1

3:15 Resolution 2022-04: 2022 South Canyon Landfill Fee Setting

Comments were made by Director of Public Works Matt Langhorst.

3:06 Councilor Wussow moved, seconded by Mayor Godes, to approve Resolution 2022-04: 2022 South Canyon Landfill Fees as currently written and recommended by the Director of Public Works.

Comments were made by Councilor Davis.

3:07 Mayor Godes opened public comment.

Public comment was made.

3:09 Mayor Godes closed public comment.

Comments were made by Mayor Pro-Tem Willman.

Motion passed unanimously.

3:10 Employee Online Merchandise Store

3:10 Councilor Hershey moved, to continue agenda item 18

Motion failed for lack of a second.

Public Information Officer Bryana Starbuck, presented.

Comments were made by Councilor Stepp, City Manager Debra Figueroa, Mayor Godes, and Councilor Wussow.

3:18 Councilor Davis moved, seconded by Mayor Godes, to approve the Online Merchandise Store for full-time employees to receive \$200 annually.

Comments were made by Mayor Godes, and Councilor Davis.

3:18 Councilor Davis amended motion, seconded by Mayor Godes, to approve the Online Merchandise Store with full-time employees to receive \$200 annually and part-time/seasonal staff to receive a pro-rated percentage based on hours, at staff discretion, annually.

Comments were made by Councilor Wussow, Councilor Hershey, and Councilor Kaup.

Ayes: Willman, Wussow, Godes, Davis

Nays: Stepp, Kaup, Hershey

Motion passed 4-3

3:21 Ordinance 2022-03; Change the Name of the Tourism Promotion Board to the Tourism Management Board

**3:22 Mayor Godes moved, seconded by Councilor Hershey, to approve Ordinance 2022-03;
Change the Name of the Tourism Promotion Board to the Tourism Management Board.**

3:22 Mayor Godes opened public comment.

No public comment was made.

3:22 Mayor Godes closed public comment.

Motion passed unanimously.

3:22 Report from Administration

City Manager

Comments were made by City Manager Debra Figueroa, Councilor Hershey, and Councilor Wussow.

City Attorney

Comments were made by City Attorney Karl Hanlon.

Correspondence Incoming/Outgoing

No comments were made.

3:24 Adjournment

3:24 Mayor Pro-Tem Willman moved, seconded by Councilor Wussow, to adjourn.

Motion passed unanimously.



City Council
STAFF REPORT
City of Glenwood Springs
February 3, 2022

Agenda Item: Ordinance 2022-03; Change the Name of the Tourism Promotion Board to the Tourism Management Board, Second Reading

Action Requested: Changing the name of the Tourism Promotion Board to the Tourism Management Board.

Department: Attorney

Strategic Goals: Generate Sustainable Economic Development

Background Info: The Tourism Promotion Board has requested their name be changed to the Tourism Management Board. The attached ordinance affects that change.

Issues:

Staff Recommendation:

ORDINANCE NO. 03

Series of 2022

AN ORDINANCE OF THE CITY OF GLENWOOD SPRINGS, COLORADO, AMENDING SECTION 020.020.030 OF THE GLENWOOD SPRINGS MUNICIPAL CODE.

WHEREAS, the City of Glenwood Springs (“Glenwood Springs” or the “City”) is a home-rule municipality organized under Article XX of the Colorado Constitution and with the authority of the Glenwood Springs Home Rule Charter; and

WHEREAS, The Tourism Promotion Board is an advisory board of the Glenwood Springs City Council; and

WHEREAS, the Tourism Promotion Board has recommended changing its name to the Tourism Management Board; and

WHEREAS, the City Council finds and declares that the amendments to Section 020.020.020 set forth below are in the best interest of the City.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF GLENWOOD SPRINGS, COLORADO, ORDAINS:

Section 1. The foregoing recitals are incorporated herein as if set forth in full.

Section 2. Sections of Article 020.020 of the Glenwood Springs Municipal Code are hereby amended as set forth in **Exhibit A** attached hereto.

Section 3. Any ordinances or resolutions or parts thereof, which are in conflict with this ordinance, are hereby repealed to the extent of such conflict only.

Section 4. With the exception of the provisions of the Municipal Code of the City of Glenwood Springs which are modified as provided herein, all remaining provisions of the Municipal Code of the City of Glenwood Springs shall remain in full force and effect.

INTRODUCED, READ ON FIRST READING, PASSED AND ORDERED
PUBLISHED BY TITLE ONLY THIS 20th DAY OF JANUARY 2022.

CITY OF GLENWOOD SPRINGS, COLORADO

Jonathan Godes, Mayor

ATTEST:

Ryan Muse, City Clerk

INTRODUCED, READ ON SECOND READING, AND ORDERED PUBLISHED BY
TITLE ONLY TO BE EFFECTIVE TEN DAYS FOLLOWING THE DATE OF SECOND
PUBLICATION THIS 3RD DAY OF FEBRUARY 2022.

CITY OF GLENWOOD SPRINGS, COLORADO

Jonathan Godes, Mayor

ATTEST:

Ryan Muse, City Clerk

EXHIBIT A

The following sections of the Municipal Code are amended as follows with double underlined text added and ~~strike through text deleted~~.

020.020.010 Boards and Commissions Created.

(13) ~~Tourism Promotion Board~~ Tourism Management Board.

020.020.020 Composition of boards and commissions.

(13) ~~Tourism Promotion Board~~ Tourism Management Board.

020.020.030 - Powers and duties of boards and commissions.

(m) Powers and duties of ~~Tourism Promotion Board~~ Tourism Management Board. The powers and duties of the ~~Tourism Promotion Board~~ Tourism Management Board shall be:

020.020.040 - Appointment, removal, term and vacancies of boards and commissions.

(a) *Appointment and term of members.* Except as otherwise provided, all appointments to the boards and commissions shall be by the City Council for terms of three (3) years each, and each member shall serve until his/her successor is appointed and takes office; provided, however, that the initial terms of office may be shortened by the City Council so as to provide overlapping terms of office. Appointments shall expire the day before the first regular meeting of the City Council in each month according to the following schedule:

(1) February:

Planning and Zoning Commission;

Finance Advisory Board;

~~Tourism Promotion Board~~ Tourism Management Board;

Building Board of Appeals.



City Council
STAFF REPORT
City of Glenwood Springs
February 3, 2022

Agenda Item:	Change Order Approval for Roaring Fork Pump Station Pipeline Design Changes
Action Requested:	Approval of Change Order No. 1 to Johnson Construction for the design changes to the originally bid plan set for \$745,798.00
Department:	Public Works
Strategic Goals:	Preserve and Improve Infrastructure
Background Info:	The City of Glenwood Springs Water Department is planning on constructing a 24" DIP pipe from the existing Roaring Fork Pump Station at 7th Street up to the Red Mountain Treatment plant location starting in the spring of 2022. This work was designed by SGM Engineers and bid out by the City. Johnson Construction was the low bidder on the project back in June of 2021. After solving some constructibility questions and value engineering the cost of the project came in enough under budget that staff is able to replace the proposed 16" DIP line with an upsized 24" line so that the new line would function the same as the existing 24" line in the future. The 16" line would have reduced our gravity flow capacity down to 5MGD, which is near the peak summer water usage, possibly creating water restrictions caused by equipment. The change order covers the costs associated with the line upsizing from 16" to 24", mixing vault changes and some miscellaneous items that total up to the \$745,798 change order. This project is also being funded by a \$500,000 grant from DOLA, a \$300,000 grant from the Colorado River District, and a low interest loan from the CWCB. The completed project will come in under the \$3,500,000 that is budgeted in the 2022 Water/Wastewater Fund.
Issues:	None at this time.
Staff Recommendation:	Staff is recommending approval of Change Order No. 1 to Johnson Construction for the design changes to the originally bid plan set for \$745,798.

CHANGE ORDER

Order No. 001

Date 1/26/22

Agreement Date 9/10/21

NAME OF PROJECT: Roaring Fork Pump Station, 2021-21P

OWNER: City of Glenwood Springs

CONTRACTOR: Johnson Construction, Inc.

The following changes are hereby made to the CONTRACT DOCUMENTS:

Justification: Design changes increasing the 16" DIP to 24" diameter, along with associated fittings, valves, and vault adjustments by revised SGM, Inc. plans dated/stamped 11/10/21.

Change to CONTRACT PRICE:

Original CONTRACT PRICE: \$ 2,348,416.00

Current CONTRACT PRICE adjusted by previous CHANGE ORDER \$ 2,348,416.00

The CONTRACT PRICE due to this CHANGE ORDER will be **increased** (decreased) by
\$ 745,798.00

The New CONTRACT PRICE including this CHANGE ORDER will be \$ 3,094,214.00

Change to CONTRACT TIME:

The CONTRACT TIME will be **increased** (decreased) by TBD calendar days.

The date for completion of all work will be TBD (Date).

APPROVALS REQUIRED:

Approved by Project Manager: _____

Accepted by Contractor: Ros Beah 1/26/22

Accepted and Approved by Owner: _____

Federal Agency Approval (where applicable): _____

BID SCHEDULE

REMOVALS					
ITEM NUMBER	CONTRACT ITEM	UNIT	QTY	UNIT COST	EXTENDED COST
R1	TREE REMOVAL	EACH	8	\$ 750.00	\$ 6,000.00
R2	ASPHALT MILLING	SY	43	\$ 130.00	\$ 5,590.00
R3	LANDSCAPING WALL REPLACEMENT	EA	4	\$ 5,000.00	\$ 20,000.00
R4	REMOVE AND REPLACE CONCRETE PAVEMENT	SY	7	\$ 500.00	\$ 3,500.00
R5	REMOVE AND REPLACE ASPHALT	SY	2305	\$ 50.00	\$ 115,250.00
R6	REMOVE AND REPLACE GRAVEL	SY	140	\$ 11.00	\$ 1,540.00
R7	REMOVE AND REPLACE FENCE	LF	170	\$ 15.00	\$ 2,550.00
R8	SAWCUT CONCRETE	LF	206	\$ 5.00	\$ 1,030.00
R9	SAWCUT ASPHALT	LF	305	\$ 3.00	\$ 915.00
R10	RESET GATE POST	EA	0	\$	\$
R11	CLEARING AND GRUBBING	LS	1	\$ 10,000.00	\$ 10,000.00
R12	TREE TRIMMING	HR	15	\$ 200.00	\$ 3,000.00
R13	REMOVAL AND DISPOSAL OF SEDIMENT (LABOR)	HR	24	\$ 50.00	\$ 1,200.00
R14	REMOVAL AND DISPOSAL OF SEDIMENT (EQUIPMENT)	HR	16	\$ 100.00	\$ 1,600.00
R15	SWEEPING (SEDIMENT REMOVAL)	HR	12	\$ 120.00	\$ 1,440.00
R16	REMOVAL OF TRASH	HR	10	\$ 200.00	\$ 2,000.00
R17	CROSSWALK (REM. CONC, REPL. ASPH)	LS	1	\$ 21,500.00	\$ 21,500.00
REMOVALS TOTAL					\$ 197,115.00

WATERLINE AND DRAINS					
ITEM NUMBER	CONTRACT ITEM	UNIT	QTY	UNIT COST	EXTENDED COST
W1	24" DIP	LF	3141	\$ 406.00	\$ 1,275,246.00
W2	24" FITTINGS (ELBOWS AND REDUCERS) [2]	EACH	39	\$ 3,700.00	\$ 144,300.00
W3	18" BUTTERFLY VALVE	EACH	2	\$ 10,000.00	\$ 20,000.00
W4	CONNECT TO EXISTING	EACH	4	\$ 12,250.00	\$ 49,000.00
W5	12" GATE VALVE	EACH	2	\$ 6,500.00	\$ 13,000.00
W6	INSULATED WATERLINE (SEE PLAN FOR THICKNESS)	LF	0	\$	\$
W7	DRAIN OUTLET [3]	EA	2	\$ 3,750.00	\$ 7,500.00
W8	12" SDR21 PVC PIPE	LF	122	\$ 135.00	\$ 16,470.00
W9	18" FITTINGS (ELBOWS AND REDUCERS)	EACH	1	\$ 2,500.00	\$ 2,500.00
W10	18"X18" TEE	EA	1	\$ 4,200.00	\$ 4,200.00
W11	24"X24" TEE	EA	6	5,200.00	31,200.00
W12	24" BUTTERFLY VALVE	EA	6	14,500.00	87,000.00
W13	12" FITTINGS (ELBOWS AND REDUCERS) [2]	EA	2	1,500.00	3,000.00
W14	12"X12" TEE	EA	2	\$ 2,100.00	\$ 4,200.00
W15	TEMPORARY TESTING TAP	EA	3	\$ 3,600.00	\$ 10,800.00
WATERLINE AND DRAINS TOTAL					\$ 1,668,416.00

EROSION CONTROL					
ITEM NUMBER	CONTRACT ITEM	UNIT	QTY	UNIT COST	EXTENDED COST
E1	EROSION LOG (12 INCH)	LF	57	\$ 7.00	\$ 399.00
E2	EROSION LOG CHECK DAM/INLET PROTECTION	EA	25	\$ 160.00	\$ 4,000.00
E3	SILT FENCE	LF	2234	\$ 3.50	\$ 7,819.00
E4	RIP RAP	CY	5	\$ 200.00	\$ 1,000.00
E5	EROSION CONTROL MANAGEMENT	LS	1	\$ 8,500.00	\$ 8,500.00
EROSION CONTROL TOTAL					\$ 21,718.00

VAULT ITEMS					
ITEM NUMBER	CONTRACT ITEM	UNIT	QTY	UNIT COST	EXTENDED COST
V1	CIP PRECAST CONCRETE VAULT [1]	LS	1	\$ 209,250.00	\$ 209,250.00
V2	FLOOR DRAIN	EA	1	\$ 750.00	\$ 750.00
V3	VAULT PIPING, ELBOWS, AND REDUCERS [2]	LS	1	\$ 110,000.00	\$ 110,000.00
V4	18" CHECK VALVE	EA	2	\$ 46,000.00	\$ 92,000.00
V5	2" AIR/VACUUM VALVE	EA	2	\$ 3,000.00	\$ 6,000.00
V6	18" BUTTERFLY VALVE - ELECTRIC ACTUATED	EA	1	\$ 26,000.00	\$ 26,000.00
V7	18" FLOWMETER	EA	2	\$ 20,000.00	\$ 40,000.00
V8	8" PRESSURE REDUCING VALVE	EA	1	\$ 13,000.00	\$ 13,000.00
V9	18" LUGGED BUTTERFLY VALVE	EA	1	\$ 7,500.00	\$ 7,500.00
V10	ELETRICAL/HVAC INSTALLATION	LS	1	\$ 50,000.00	\$ 50,000.00
VAULTS ITEMS TOTAL					\$

V11	SCADA Controls	LS	1	\$ 18,000.00	\$ 18,000.00
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VAULTS ITEMS TOTAL	\$572,500.00
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OTHER ITEMS					
ITEM NUMBER	CONTRACT ITEM	UNIT	QTY	UNIT COST	EXTENDED COST
O1	POTHOLING	HR	16	\$ 350.00	\$ 5,600.00
O2	THRUST BLOCKS	LS	1	\$ 150,000.00	\$ 150,000.00
O3	REVEGETATION OF DISTURBED AREAS	LS	1	\$ 15,000.00	\$ 15,000.00
O4	CONSTRUCTION SURVEYING	LS	1	\$ 30,000.00	\$ 30,000.00
O5	MOBILIZATION	LS	1	\$ 110,000.00	\$ 110,000.00
O6	TRAFFIC CONTROL (SPECIAL) LS	LS	1	\$ 35,000.00	\$ 35,000.00
O7	2IN ELECTRIC CONDUIT	LF	6540	\$ 6.00	\$ 39,240.00
O8	3IN ELECTRIC CONDUIT	LF	570	\$ 50.00	\$ 28,500.00
O9	CONDUIT PULL BOXES	EA	23	\$ 615.00	\$ 14,145.00
O10	TRENCH WIDENING FOR EXTRA CONDUIT (9TH ST)	LF	281	\$ 80.00	\$ 22,480.00
O11	LANDSCAPING ALLOWANCE (MIDLAND TO RED MOUNTAIN)	LS	1	\$50,000	\$50,000
O12	TEMPORARY SECURITY FENCE AND GATE (DURING VAULT CONSTRUCTION)	LS	1	\$ 3,000.00	\$ 3,000.00
O13	SANITARY FACILITIES (CONSTRUCTION)	LS	1	\$ 1,500.00	\$ 1,500.00
O14	GATE UPGRADES AT RFR INTAKE STRUCTURE	LS	1	\$ 30,000.00	\$ 30,000.00
O15	F/A MINOR CONTRACT REVISIONS	FA	1	\$100,000	\$100,000
OTHER ITEMS TOTAL					\$ 634,465.00

COST SUMMARY OF BID SCHEDULE

1	REMOVALS	\$	<u>197,115.00</u>
2	WATERLINE AND DRAINS	\$	<u>1,668,416.00</u>
3	EROSION CONTROL	\$	<u>21,718.00</u>
4	VAULT ITEMS	\$	<u>572,500.00</u>
5	OTHER ITEMS	\$	<u>634,465.00</u>

TOTAL BID:

(written)

BID (numeric) \$ 3,094,214.00

Submitted by:

Company

Submitted by:

Authorized Personnel

Title of Authorized Personnel

Date of Bid:



City Council
STAFF REPORT
City of Glenwood Springs
February 3, 2022

Agenda Item:	Fire Truck Request for Proposals Award
Action Requested:	Award for a fire engine to Front Range Fire at \$838,467.
Department:	Fire Department
Strategic Goals:	Ensure Public Safety
Background Info:	Staff issued an solicitation for a fire engine and received two qualified responses. Front Range Fire was the low bidder at \$838,467 and Mile High Apparatus Inc. proposed \$860,014. The selection committee confirmed that the low bid was compliant and meets the needs of the City. The Fire Equipment Replacement Fund has reserves of \$2.8 million. The 2022 budget has \$800,000 appropriated for an engine. The remaining \$38,467 will be included in the next budget amendment.
Issues:	None
Staff Recommendation:	Award to Front Range Fire



FRONT RANGE FIRE APPARATUS

**7600 Miller Court
Frederick, CO 80504
303-449-9911
1-800-334-9911
www.FrontRangeFire.com**

**WAYNE KERBER
970-531-7184
WayneK@frontrangefire.com**



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- Complete transparency of a public traded company
- Greater strength from shared engineering and technology across all of Oshkosh Corporation
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- America's Best Large Employers list by Forbes



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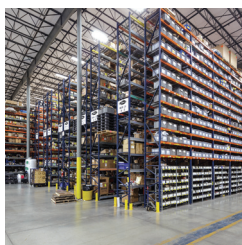
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RESPONSE**

FRONT RANGE
FIRE APPARATUS



VOLUNTEER & COMBINATION
OFFICERS SECTION

Pierce leads the industry in sponsorships that support families of fallen firefighters, recognize outstanding achievement and further the education and safety of the fire service.

www.piercemfg.com



Pierce Manufacturing Inc., An Oshkosh Corporation Company
P.O. Box 2017, Appleton WI 54912-2017 USA

Specifications, descriptions and illustrative material in this literature are as accurate as known at the time of publication, but are subject to change without notice.

Illustrations may include optional equipment and accessories and may not include all standard equipment. All measurements are nominal values.

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PROPOSAL FOR FURNISHING FIRE APPARATUS

January 21st, 2022

City of Glenwood Springs
101 W. 8th Street
Glenwood Springs, CO 81601

The undersigned is prepared to manufacture for you, upon an order being placed by you, for final acceptance by Front Range Fire Apparatus., at its home office in Frederick, Colorado, the apparatus and equipment herein named and for the following prices:

Pierce Enforcer PUC Pumper With Paccar MX13 510 HP Engine, 1,500 GPM Pierce Pump, 500 Gallon Tank, Husky 3 Foam System. Per the attached proposal Delivery is 18.5 to 20.5 months Price is booked prior to 1/31/22	\$ 838,467.00
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If booked after 1/31/22 the price will be \$896,727.00.

Chassis Prepayment Discount, Make chassis payment of \$429,137.00 3-months prior to completion for a savings \$12,874.00.

Total \$ 838,467.00

Said apparatus and equipment are to be built and shipped in accordance with the specifications hereto attached, delays due to strikes, war, or intentional conflict, failures to obtain chassis, materials, or other causes beyond our control not preventing, within 18.5 to 20.5 months after receipt of this order and the acceptance thereof at our office at Frederick, Colorado, and to be delivered to you in Glenwood Springs, CO

The specifications herein contained shall form a part of the final contract, and are subject to changes desired by the purchaser, provided such alterations are interlined prior to the acceptance by the company of the order to purchase, and provided such alterations do not materially affect the cost of the construction of the apparatus.

The proposal for fire apparatus conforms with all Federal Department of Transportation (DOT) rules and regulations in effect at the time of bid, and with all National Fire Protection Association (NFPA) Guidelines for Automotive Fire Apparatus as published at the time of bid, except as modified by customer specifications. Any increased costs incurred by first party because of future changes in or additions to said DOT or NFPA standards will be passed along to the customers as an addition to the price set forth above.

Unless accepted by January 31st, 2022, the right is reserved to withdraw this proposition.

FRONT RANGE FIRE APPRATUS.

By: _____
Wayne Kerber
SALES REPRESENTATIVE



Bond No. Bid Bond

Fidelity and Deposit Company of Maryland

600 Red Brook Blvd Owings Mills, MD 21117

BID BOND

KNOW ALL MEN BY THESE PRESENTS:

That we, Front Range Fire Apparatus, Ltd., as Principal, (hereinafter called the "Principal"), and Fidelity and Deposit Company of Maryland, a corporation duly organized under the laws of the State of IL, as Surety, (hereinafter called the "Surety") are held and firmly bound unto City of Glenwood Springs as Oblige, (hereinafter called the "Obligee"), in the sum of Five Percent of Amount Bid Dollars (\$ 5%) for the payment of which sum well and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a bid for One (1) Pierce Enforcer Pumper

NOW, THEREFORE, if the Oblige shall accept the bid of the Principal and the Principal shall enter into a contract with the Oblige in accordance with the terms of such bid and give such bond or bonds as may be specified in the bidding or contract documents with good and sufficient surety for the faithful performance of such contract, including the attached warranty of Pierce Manufacturing, Inc., or McNeilus Companies Inc., as applicable herein, and for the prompt payment of labor and material furnished in the prosecution thereof, or in the event of the failure of the Principal to enter into such contract and give such bond or bonds, if the Principal shall pay to the Oblige the difference not to exceed the penalty hereof between the amount specified in said bid and such larger amount for which the Oblige may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect.

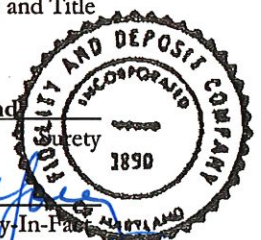
Signed and sealed this 28th day of December, 2021.

Rose M. Cain
Witness:

Front Range Fire Apparatus, Ltd.
By: [Signature] Principal
Name and Title

Cathy Hutson
Witness: Cathy Hutson

Fidelity and Deposit Company of Maryland
By: [Signature] Sarah E. DeYoung
Attorney-In-Fact



Bond Number Bid Bond

Obligee City of Glenwood Springs

**ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND
POWER OF ATTORNEY**

KNOW ALL MEN BY THESE PRESENTS: That the ZURICH AMERICAN INSURANCE COMPANY, a corporation of the State of New York, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, a corporation of the State of Illinois, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND a corporation of the State of Illinois (herein collectively called the "Companies"), by **Robert D. Murray, Vice President**, in pursuance of authority granted by Article V, Section 8, of the By-Laws of said Companies, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, do hereby nominate, constitute, and appoint Sarah E. DeYoung, its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed: any and all bonds and undertakings, and the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Companies, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the ZURICH AMERICAN INSURANCE COMPANY at its office in New York, New York., the regularly elected officers of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at its office in Owings Mills, Maryland., and the regularly elected officers of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at its office in Owings Mills, Maryland., in their own proper persons.

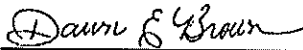
The said Vice President does hereby certify that the extract set forth on the reverse side hereof is a true copy of Article V, Section 8, of the By-Laws of said Companies, and is now in force.

IN WITNESS WHEREOF, the said Vice-President has hereunto subscribed his/her names and affixed the Corporate Seals of the said ZURICH AMERICAN INSURANCE COMPANY, COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and FIDELITY AND DEPOSIT COMPANY OF MARYLAND, this 19th day of June, A.D. 2019.

ATTEST:
ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND



By: Robert D. Murray
Vice President



By: Dawn E. Brown
Secretary

State of Maryland
County of Baltimore

On this 19th day of June, A.D. 2019, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, **Robert D. Murray, Vice President and Dawn E. Brown, Secretary** of the Companies, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and acknowledged the execution of same, and being by me duly sworn, depose and saith, that he/she is the said officer of the Company aforesaid, and that the seals affixed to the preceding instrument are the Corporate Seals of said Companies, and that the said Corporate Seals and the signature as such officer were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporations.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal the day and year first above written.



Constance A. Dunn
Constance A. Dunn, Notary Public
My Commission Expires: July 9, 2023

EXTRACT FROM BY-LAWS OF THE COMPANIES

"Article V, Section 8, Attorneys-in-Fact. The Chief Executive Officer, the President, or any Executive Vice President or Vice President may, by written instrument under the attested corporate seal, appoint attorneys-in-fact with authority to execute bonds, policies, recognizances, stipulations, undertakings, or other like instruments on behalf of the Company, and may authorize any officer or any such attorney-in-fact to affix the corporate seal thereto; and may with or without cause modify or revoke any such appointment or authority at any time."

CERTIFICATE

I, the undersigned, Vice President of the ZURICH AMERICAN INSURANCE COMPANY, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, do hereby certify that the foregoing Power of Attorney is still in full force and effect on the date of this certificate; and I do further certify that Article V, Section 8, of the By-Laws of the Companies is still in force.

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the ZURICH AMERICAN INSURANCE COMPANY at a meeting duly called and held on the 15th day of December 1998.

RESOLVED: "That the signature of the President or a Vice President and the attesting signature of a Secretary or an Assistant Secretary and the Seal of the Company may be affixed by facsimile on any Power of Attorney...Any such Power or any certificate thereof bearing such facsimile signature and seal shall be valid and binding on the Company."

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at a meeting duly called and held on the 5th day of May, 1994, and the following resolution of the Board of Directors of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at a meeting duly called and held on the 10th day of May, 1990.

RESOLVED: "That the facsimile or mechanically reproduced seal of the company and facsimile or mechanically reproduced signature of any Vice-President, Secretary, or Assistant Secretary of the Company, whether made heretofore or hereafter, wherever appearing upon a certified copy of any power of attorney issued by the Company, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seals of the said Companies, this 28th day of December, 2021.



Brian M. Hodges, Vice President

TO REPORT A CLAIM WITH REGARD TO A SURETY BOND, PLEASE SUBMIT A COMPLETE DESCRIPTION OF THE CLAIM INCLUDING THE PRINCIPAL ON THE BOND, THE BOND NUMBER, AND YOUR CONTACT INFORMATION TO:

Zurich Surety Claims
1299 Zurich Way
Schaumburg, IL 60196-1056
www.reportsfcliams@zurichna.com
800-626-4577



Reference and Contact Information

Pierce Manufacturing Inc.
2600 American Dr.
Appleton, WI 54913
(920) 832-3000

Front Range Fire Apparatus LTD
7600 Miller Court
Frederick, CO 80504
Wayne Kerber
(970) 531-7184
waynek@frontrangefire.com

Reference List:

Roaring Fork Fire Rescue
1089 JW Drive
Carbondale, CO 81623
(970) 704-0675

Eagle River F.P.D.
1050 Edwards Village Blvd.
Eagle, CO 81632
(970) 748-9665

Vail Fire Department
2399 North Frontage Road West
Vail, CO 81657
(970) 479-2254

Grand Junction Fire Department
625 Ute Avenue
Grand Junction, CO 81501
(970) 549-5800

Colorado River Fire Rescue
1850 Railroad Avenue
Rifle, CO 81650
(970) 625-1243

Additional references available upon request.



**Request for Proposal 2021-29P
Fire Truck**

**BUYER: CITY OF GLENWOOD SPRINGS
101 W. 8TH STREET, GLENWOOD SPRINGS, CO 81601**

Section I: Introduction

Bidders will observe the following instructions. These instructions are supplementary to the Instructions contained in the "Request for Proposal" to which each Bidder shall also give particular attention in preparing his bid.

The City of Glenwood Springs uses the Rocky Mountain E-Purchasing System ("BidNet") to post solicitations and any supporting or additional information, including Addenda, Bid Sheets and awards. Proposals must be submitted prior to close on BidNet. The City of Glenwood cannot accept a response that did not come through the right channel on time. All documents and information are available at www.bidnetdirect.com/cityofglenwoodsprings. If you require additional information regarding BidNet please call Vendor Support at 800-835-4603 anytime Monday-Friday from 6:00 am to 6:00 pm Mountain Time.

SCOPE OF PROJECT

The City of Glenwood Springs Fire Department is requesting quotes from qualified bidders for the construction and delivery of a new Fire Apparatus and related equipment outlined in this RFP document and to be completed prior to June 1st, 2023 if possible. Proposers shall follow and be in accordance with the current edition of the NFPA 1901 standards.

Section II: Timeline

a. **Proposal Timeline.**

TIMELINE	DATE	TIME
RFP Issue Date	NOVEMBER 19, 2021	10:00 a.m.
Questions and Clarifications Due via Email to bidresponse@cogs.us	DECEMBER 12, 2021	1:00 p.m.
Addendum and Submittal Sheet Posted to BidNet	DECEMBER 19, 2021	2:00 p.m.
Request for Proposals (RFP) Due http://www.bidnetdirect.com/cityofglenwoodsprings	JANUARY 21, 2022	2:00 p.m.
Target Award Date (Subject to Change)	JANUARY 28, 2022	2:00 p.m.

Section III: Instructions to Submitters

- a. The City of Glenwood Springs endeavors to provide a uniform distribution of information and conduct a fair selection process. We ask that you please follow these instructions carefully and that you not contact directly any City employee directly. Questions should be directed to bidresponse@cogs.us. Any submittal that does not meet the requirements set forth in this document and any addenda cannot be considered by the City Staff.
- b. The specifications provided with this RFP come from Pierce. The City has not altered or amended them in any way. It is important for proposers to know that the City will consider an alternative manufacturer, vendor or design in all specifications so long as the functionality is similar, and the quality is equivalent to or better than the posted specifications. The City thanks Pierce for the use of its RFP. This solicitation is in no way intended to lock out any qualified firm.
- c. Please upload your submittal to BidNet in no more than 2 PDF files if possible.
- d. The following items must be submitted with your submittal:
- 1) Submittal Form (if issued by the City) or pricing schedule
 - 2) Responders should check the box on the right-hand side of the specifications for every line item you are proposing a variance from and outline the differences or provide the alternate specifications. It is acceptable to check the boxes on the specification sheet and provide another PDF document with explanations and alternate specifications. Exceptions and variances will be taken into consideration during the bid review process
 - 3) Applicable warranty information
List of five (5) fire districts or municipalities in our general region that have bought a second time from the representing dealer
 - 4) Your expected delivery date
 - 5) Requirements required in the accompanying documents and addendums
 - 6) Any additional information that you feel would help our selection committee with its decision
- e. Questions regarding this RFP should be submitted to bidresponse@cogs.us prior to the question deadline. The City will answer those questions in PDF format and upload directly to BidNet as a single response in accordance with the RFP schedule. It shall be the Bidder's responsibility to view all documents posted at BidNet.
- f. Once you've uploaded your response to BidNet per the instructions in this document the RFP will be governed by Bidnet's established time. The City of Glenwood cannot see how many responses or what firms have submitted to BidNet prior to the closing date so we are unable to confirm receipt. However, you may assume your upload was successful if BidNet accepts the document.
- g. Please submit your response earlier than the deadline to ensure any technical difficulties or other issues that may arise can be handled prior to closing. It is a best practice to submit at least 24 hours prior to closing.
- h. The Bidder shall purchase and maintain at its own expense, insurance which is at least as broad, and with limits at least as great as outlined in the specifications: If your proposal is successful and a contract awarded, a compliant certificate of insurance will be required with all endorsements at that time.
- i. The City of Glenwood Springs makes no guarantee that an award will be made as a result of this RFP and reserves the right to accept or reject any or all proposals, waive any formalities or technical inconsistencies, or delete any item/requirements from this RFP or resulting contract when deemed to be in the City's best interest.
- j. Bidder recognizes and understands that any costs incurred by the Bidder from submitting a response to this RFP are the responsibility of the bidder.

Section IV: Overview of Project

Fire Apparatus Vehicle:

1. Contractor will be responsible for all fees and permits required.
2. Provide a set of manufacturer's specifications consisting of a detailed description of the apparatus, construction methods, and equipment proposed to which the apparatus furnished under contract shall conform.
3. Provide all necessary materials, equipment, labor and such to complete the apparatus as a whole.
4. The cab, chassis, pump module, and body are to be entirely designed, assembled and painted by the prime vehicle manufacturer, which minimizes third party involvement on engineering, design, service and warranty issues.
5. Provide a list of the company, manufacturing location, and engineering source for each individual major component, including but not limited to the welded cab assembly, the pumphouse module assembly, the chassis assembly, body and electrical system.
6. All steel welding shall follow American welding Society D1.1-2004 recommendations for structural steel welding. All aluminum welding shall follow American welding Society and ANSI D1.2-2003 requirements for structural welding of aluminum. All sheet metal welding shall follow American Welding Society B2.1-2000 requirements for structural welding of sheet metal. Flux core arc welding to use alloy rods, type 7000, American welding Society standards A5.20-E70T1.
7. The manufacturer shall also be certified to operate a Quality Management System under the requirements of ISO 9001. These standards sponsored by the International organization for Standardization (ISO) specify the quality systems that shall be established by the manufacturer for design, manufacture, installation and service. A copy of the certificate of compliance shall be included with the bid.

Delivery:

To ensure proper break in of all components while still under warranty, shall be delivered under its own power - rail or truck freight shall not be acceptable. A qualified delivery representative shall deliver the apparatus and remain for a sufficient length of time to instruct personnel in proper operation, care and maintenance of the equipment delivered.

Section V: Selection Criteria

In evaluating Proposals, the City shall consider the qualifications of the Submitters, whether or not the Proposals comply with the prescribed requirements, and alternates and unit prices if requested in the Proposal forms. The City may consider the qualifications and experience of sub-contractors and other persons and organizations (including those who are to furnish the principal items of material or equipment) proposed for those portions of the work as to which the identity of sub-contractors and other persons and organizations must be submitted as specified in the Supplementary Conditions. S/He may conduct such investigations as s/he deems necessary to establish the responsibility, qualifications, and financial ability of the Proposers, proposed sub-contractors and other persons and organizations to do the Work in accordance with the Contract Documents to City's satisfaction within the prescribed time. The City reserves the right to reject the Proposal of any firm that does not pass any such evaluation to the City's satisfaction.

The City of Glenwood Springs will award the project to the firm offering the best value. Overall price is a consideration but will not be the sole determining factor. In making this award the City will consider the following (in no particular order of importance):

- a. Overall quality of response and services/products proposed
- b. Company qualifications, experience and demonstration of technical and management competence
- c. Pricing
- d. Warranties
- e. References and reputation
- f. Environmental policy and "Green" initiatives, if applicable
- g. Service capability including evaluation of past performance and number and scope of any conditions included in the proposal

Section VI: RFP Terms & Conditions

Discussions/Negotiations

The City of Glenwood Springs reserves the right to contact any Bidder for clarification of information submitted; The City reserves the right to conduct discussions with Bidders, to accept or not accept revisions of Proposals, and to negotiate any point in the proposal or the subsequent contract at the sole discretion of the City Administration.

Section VII: Warranties, Representations and Acknowledgements of Bidder

- a. By submitting a proposal, Bidder acknowledges and agrees that (1) this RFP is a solicitation for proposal and is not a contract or an offer to contract and (2) the submission of a proposal by Bidder in response to this RFP will not create a contract between the City of Glenwood and Bidder.
- b. By submitting a proposal, Bidder offers and agrees to furnish to the City of Glenwood with the products and/or services described in its proposal, at the prices quoted in the proposal, and to comply with all terms, conditions, and requirements set forth in the RFP documents and contained herein.
- c. By submitting a proposal, Bidder represents and warrants that (1) Bidder is a reputable company regularly engaged in providing products and/or services necessary to meet the terms, conditions, and requirements of the RFP; (2) Bidder has the necessary experience, knowledge, abilities, skills, and resources to satisfactorily perform the terms, conditions and requirements of the RFP; (3) Bidder is aware of, is fully informed about, and is in full compliance with all applicable federal, state, and local laws, rules, regulations, and ordinances; (4) Bidder understands the requirements and specifications set forth in this RFP and the terms and conditions set forth; and (5) all statements, information, and representations prepared and submitted in response to this RFP are current, complete, true, and accurate. Bidder acknowledges that the City of Glenwood will rely on such statements, information, and representations in selecting the successful Bidder. If selected by the City as the successful Bidder, Bidder will notify the City immediately of any material change in any matters with regard to which Bidder has made a statement or representation or provided information.
- d. By submitting a proposal, Bidder agrees to be in compliance with all federal laws and regulations pertaining to Equal Employment Opportunities and Affirmative Action.

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	Bidder Complies	
	Yes	No
<u>SPECIFICATIONS FOR A MULTI PURPOSE RESPONSE VEHICLE</u> Sealed bids will be received by Glenwood Springs Fire Department for the furnishing of all necessary labor, equipment and material for the Fire Apparatus and other equipment as outlined in the following specifications. <u>INTENT OF SPECIFICATIONS</u> It shall be the intent of these specifications to cover the furnishing and delivery of a complete fire apparatus. These detailed specifications cover the requirements as to the type of construction, finish, equipment and tests to which the fire apparatus shall conform. Minor details of construction and materials, which are not otherwise specified, are left to the discretion of the contractor. Images and illustrative material in this specification are as accurate as known at the time of publication, but are subject to change without notice. Images and illustrative material is for reference only, and may include optional equipment and accessories and may not include all standard equipment. <u>INSTRUCTIONS TO BIDDERS</u> The purchaser's standards for bidding automotive fire apparatus must be strictly adhered to, and all bid forms and questions must be complete and submitted with the bid. Omissions and variations shall result in immediate rejection of the bid. Bids shall only be considered from companies that have an established reputation in the field of fire apparatus construction and have been in business for a minimum of 20 years. Furthermore, in order to insure fair, ethical, and legal competition, neither the original equipment manufacturer (O.E.M.) nor parent company of the O.E.M. shall have ever been fined or convicted of price fixing, bid rigging, or collusion in any domestic or international fire apparatus market (no exception). If a bidder represents more than one fire apparatus company or brands of apparatus, they must only bid the top of the line that meets specification. Each bidder shall furnish satisfactory evidence of their ability to construct the apparatus specified. Any apparatus manufacturer or their parent company who has had a performance bond called in the last 10 years, shall not be eligible to bid. Any bids from these manufactures shall be immediately rejected (no exception). Each bid shall be accompanied by a set of manufacturer's set of specifications consisting of a detailed description of the apparatus, construction methods, and equipment proposed to which the apparatus furnished under contract shall conform. These specifications shall indicate size, type, model and make of all components parts and equipment, providing proof of compliance		
	YES	
	YES	
	YES	
	YES	
	YES	
	YES	
	YES	
	YES	

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	Bidder Complies	
	Yes	No
with each and every item in the departments advertised specifications. A letter only, even though written on company letterhead, shall not be sufficient. An exception to this requirement shall not be acceptable.	YES	
In accordance with the current edition of NFPA 1901 standards, the proposal shall specify whether the fire department or apparatus dealership shall provide required loose equipment.	YES	
The purchaser will utilize this advertised specification to compare all submitted bid proposals. To facilitate comparison, all bid proposal specifications shall be submitted in the same sequence as the advertised specification. Any bidder who fails to submit a set of bid proposal specifications, or who photo copies and submits these specifications as their own construction details will be considered non responsive. This shall render such proposal ineligible for award.	YES	
The purchaser's specification shall, in all cases, govern the construction of the apparatus, unless a properly documented exception or deviation was approved. Any bid indicating that the manufacturer's proposal shall supersede the purchaser's specification will be considered a complete substitute and immediately rejected.	YES	
THE PURCHASER HAS THE RIGHT TO REJECT ANY BIDS WHICH DOES NOT MEET THESE SPECIFICATIONS AND IS THE SOLE DECIDER TO DEEM WHICH BID IS IN THE BEST INTEREST OF THE PURCHASER.	YES	
<u>EXCEPTIONS</u> These specifications are based upon design and performance criteria which have been developed by the fire department as a result of extensive research and careful analysis. Subsequently these specifications reflect the only type of fire apparatus that is acceptable at this time and all specifications herein contained are considered as minimum. Therefore exceptions to the specifications may not be accepted.	YES	
Bidders shall indicate in the "yes/no" column if their bid complies on each item (paragraph) specified.	YES	
If a product brand name is specified and is commercially available to all bidders, an exception to such items is not acceptable and such bid may be rejected.	YES	
Exceptions shall be allowed if they are equal to or superior to that specified and provided they are listed and fully explained on a separate page. All deviations, no matter how slight, shall be clearly explained on a separate sheet, in the bid sequence, citing the page and paragraph number(s) of the specifications, how the proposal deviation is different, how the deviation meets or exceeds the specifications and why it is necessary, and entitled "EXCEPTIONS TO SPECIFICATIONS". The buyer reserves the right to require a bidder to provide proof in each case that a substituted item is equal to that specified. The buyer shall be the sole judge in determination of acceptable substitutes.	YES	

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	Bidder Complies	
	Yes	No
Proposals that are found to have deviations without listing them or bids taking total exceptions to these advertised specifications will be rejected (no exception).	YES	
Bids not including all exceptions is a material breach and shall result in the bid being immediately rejected (no exception).	YES	
<u>GENERAL DESIGN AND CONSTRUCTION</u>		
The cab, chassis, pump module, and body are to be entirely designed, assembled and painted by the prime vehicle manufacturer, which minimizes third party involvement on engineering, design, service and warranty issues.	YES	
All bidders shall provide a list of the company, manufacturing location, and engineering source for each individual major component, including but not limited to the welded cab assembly, the pumphouse module assembly, the chassis assembly, body and electrical system. Apparatus using any subcontracted cab, chassis, pump module, electrical system or body will not be acceptable.	YES	
The apparatus shall be designed with due consideration to distribution of load between the front and rear axles. Weight balance and distribution shall be in accordance with the recommendations of the National Fire Protection Association.	YES	
The bidder shall make accurate statements as to the apparatus weight and dimensions.	YES	
<u>QUALITY AND WORKMANSHIP</u>		
All steel welding shall follow American welding Society D1.1-2004 recommendations for structural steel welding. All aluminum welding shall follow American welding Society and ANSI D1.2-2003 requirements for structural welding of aluminum. All sheet metal welding shall follow American Welding Society B2.1-2000 requirements for structural welding of sheet metal. Flux core arc welding to use alloy rods, type 7000, American welding Society standards A5.20-E70T1. Employees classified as welders are tested and certified to meet the American Welding Society codes upon hire and every three (3) years thereafter. The manufacturer shall be required to have an American welding Society certified welding inspector in plant during working hours to monitor weld quality.	YES	
The manufacturer shall also be certified to operate a Quality Management System under the requirements of ISO 9001. These standards sponsored by the International organization for Standardization (ISO) specify the quality systems that shall be established by the manufacturer for design, manufacture, installation and service. A copy of the certificate of compliance shall be included with the bid.	YES	
To demonstrate the quality of the product and service, each bidder shall provide a list of at least five (5) fire departments/municipalities in the region that have bought a second time from the representing dealer. An exception to this requirement shall not be acceptable.	YES	

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	Bidder Complies	
	Yes	No
<u>DELIVERY</u> Apparatus, to insure proper break in of all components while still under warranty, shall be delivered under its own power - rail or truck freight shall not be acceptable. A qualified delivery representative shall deliver the apparatus and remain for a sufficient length of time to instruct personnel in proper operation, care and maintenance of the equipment delivered.	YES	
<u>MANUALS AND SERVICE INFORMATION</u> The manufacturer shall supply at time of delivery, complete operation and maintenance manuals covering the complete apparatus as delivered. A permanent plate shall be mounted in the drivers compartment which specifies the quantity and type of fluid required including engine oil, engine coolant, transmission, pump transmission lubrication, pump primer and drive axle.	YES	
<u>SAFETY VIDEO</u> Since video is much more effective than written documentation and can be replayed for new personnel and as a refresher for existing personnel, an apparatus safety video, in DVD format shall be provided at time of delivery. This video shall address key safety considerations for personnel to follow when they are driving, operating, and maintaining the apparatus. Safety procedures for the following shall be included on the video: vehicle pre trip inspection, chassis operation, pump operation and maintenance.	YES	
<u>PERFORMANCE TESTS AND REQUIREMENTS</u> A road test shall be conducted with the apparatus fully loaded and a continuous run of ten (10) miles or more shall be made under all driving conditions, during which time the apparatus shall show no loss of power or overheating. The transmission drive shaft or shafts, and rear axle shall run quietly and be free from abnormal vibration or noise throughout the operating range of the apparatus. Vehicle shall adhere to the following parameters:	YES	
A) The apparatus, when fully equipped and loaded, shall have not less than 25 percent nor more than 50 percent of the weight on the front axle, and not less than 50 percent nor more than 75 percent on the rear axle.	YES	
B) The apparatus shall be capable of accelerating to 35 mph from a standing start within 25 seconds on a level concrete highway without exceeding the maximum governed rpm of the engine.	YES	
C) The service brakes shall be capable of stopping a fully loaded vehicle in 35 feet at 20 mph on a level concrete highway. The air brake system shall conform to Federal Motor vehicle Safety Standards (FMVSS) 121.	YES	
D) The apparatus, fully loaded, shall be capable of obtaining a speed of 50 mph on a level concrete highway with the engine not exceeding the governed rpm (full load).	YES	
<u>FAILURE TO MEET TEST</u> In the event the apparatus fails to meet the test requirements of these specifications on the first trial, second trials may be made at the option of the bidder within 30 days of the date of the first	YES	

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	Bidder Complies	
	Yes	No
trial. Such trials shall be final and conclusive and failure to comply with these requirements shall be cause for rejection. failure to comply with changes to conform to any clause of the specifications, within 30 days after notice is given to the bidder of such changes, shall also be cause for rejection of the apparatus. Permission to keep or store the apparatus in any building owned or occupied by the purchaser or its use by the purchaser during the above-specified period with the permission of the bidder shall not constitute acceptance.	YES	
<u>SERVICE AND WARRANTY SUPPORT (DEALERSHIP)</u>		
TO INSURE FULL SERVICE AFTER DELIVERY, THE SELLING BIDDER/DEALERSHIP MUST BE CAPABLE OF PROVIDING SERVICE WHEN REQUIRED.	YES	
The bidder/dealership shall show that the company is in position to render prompt service and to furnish replacement parts.	YES	
Each bidder/dealership must be able to display that they are actively in the fire apparatus service business by operating a factory authorized service center and parts repository capable of satisfying the warranty service requirements and parts requirements of the vehicle(s) being purchased.	YES	
The bidder/dealership must state the location of this authorized service center. This service center must have a staff of factory-trained mechanics, well versed in all aspects of service for all major components of the apparatus. The service center must be within two hundred fifty (250) miles of the Fire Department.	YES	
<u>SERVICE AND WARRANTY SUPPORT (MANUFACTURER)</u>		
To provide an additional layer of service support, the successful manufacturer must also own a least two separate service facilities, one located in the northern portion of the US to service both Canada and the northern US states and one in the south to service the southern states.	YES	
The manufacturer shall stock 1 million parts equating to \$5,000,000 of inventory dedicated to service and replacement parts to ensure quick response and minimize down time. Furthermore, the manufacturer shall house the inventory in a dedicated facility, with a dedicated shipping area that ensures service parts are given priority. The bidder shall provide detailed documentation of service and replacement part resources.	YES	
Parts identification shall be provided to both the dealer and the Fire Department through an on line web based application for the specific truck reflected in this specification. Access will be granted using the specific VIN number of the vehicle. The online web application will provide the ability to view complete bills of materials, digital photographs, parts drawings, assembly drawings, and access to all current operation, maintenance and service publications.	YES	
The manufacturer must also maintain a 24 hour/ 7 day a week, toll free emergency hot line.	YES	

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	Bidder Complies	
	Yes	No
The manufacturer shall employ a staff of adequate size (a minimum of 30 personnel) specifically dedicated to providing customer support and parts for the fielded fleet of vehicles it has produced.	YES	
The manufacturer must be capable of providing both in-house and on-site service for the apparatus.	YES	
The manufacturer shall offer regional factory hands-on repair and maintenance training classes.	YES	
The manufacturer shall employ a minimum of four certified EVT technicians on staff, not only providing technical expertise in the repair of fire apparatus, but also demonstrating the commitment to service after the sale.	YES	
<u>LIABILITY</u>		
The successful bidder shall defend any and all suits and assume all liability for the use of any patented process including any device or article forming a part of the apparatus or any appliance furnished under the contract.	YES	
<u>INSURANCE PROVIDED BY BIDDER</u>		
<u>COMMERCIAL GENERAL LIABILITY INSURANCE</u>		
The successful bidder shall, during the performance of the contract and for three (3) years following acceptance of the product, keep in force at least the following minimum limits of commercial general liability insurance:	YES	
Each Occurrence\$1,000,000	YES	
Products/Completed Operations Aggregate\$1,000,000	YES	
Personal and Advertising Injury\$1,000,000	YES	
General Aggregate\$2,000,000	YES	
Coverage shall be written on a Commercial General Liability form. The policy shall be written on an occurrence form and shall include Contractual Liability coverage for bodily injury and property damage subject to the terms and conditions of the policy. The policy shall include Owner as an additional insured when required by written contract.	YES	
<u>COMMERCIAL AUTOMOBILE LIABILITY INSURANCE</u>		
The successful bidder shall, during the performance of the contract, keep in force at least the following minimum limits of commercial automobile liability insurance and coverage shall be written on a Commercial Automobile liability form:	YES	
Each Accident Combined Single Limit:\$1,000,000	YES	

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	Bidder Complies	
	Yes	No
<u>UMBRELLA/EXCESS LIABILITY INSURANCE</u>		
The successful bidder shall, during the performance of the contract and for three (3) years following acceptance of the product, keep in force at least the following minimum limits of umbrella liability insurance:	YES	
Aggregate:\$3,000,000	YES	
Each Occurrence:\$3,000,000	YES	
The umbrella policy shall be written on an occurrence basis and at a minimum provide excess to the bidder's General Liability and Automobile Liability policies.	YES	
The required limits can be provided by one (1) or more policies provided all other insurance requirements are met.	YES	
Coverage shall be provided by a carrier(s) rated A- or better by A.M. Best.	YES	
All policies shall provide a 30-day notice of cancellation to the named insured. The Certificate of Insurance shall provide the following cancellation clause: Should any of the above described policies be cancelled before the expiration date thereof, notice shall be delivered in accordance with the policy provisions.	YES	
Bidder agrees to furnish owner with a current Certificate of Insurance with the coverages listed above along with the bid. The certificate shall show the purchaser as certificate holder.	YES	
<u>INSURANCE PROVIDED BY MANUFACTURER</u>		
<u>PRODUCT LIABILITY INSURANCE</u>		
The manufacturer shall, during the performance of the contract and for three (3) years following acceptance of the product, keep in force at least the following minimum limits of Product Liability insurance:	YES	
Each Occurrence\$1,000,000	YES	
Products/Completed Operations Aggregate\$1,000,000		
Coverage shall be written on a Commercial General Liability form. The policy shall be written on an occurrence form. The manufacturer's policy shall include the owner as additional insured when required by written contract between the Owner and a Pierce authorized dealer.	YES	
<u>UMBRELLA/EXCESS LIABILITY INSURANCE</u>		
The manufacturer shall, during the performance of the contract and for three (3) years following acceptance of the product, keep in force at least the following minimum limits of umbrella liability insurance:	YES	

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	Bidder Complies	
	Yes	No
Each Occurrence:\$25,000,000	YES	
Aggregate:\$25,000,000	YES	
The umbrella policy shall be written on an occurrence basis and provide excess to the manufacturer's General Liability/Products policies.	YES	
The required limits can be provided by one (1) or more policies provided all other insurance requirements are met.	YES	
Coverage shall be provided by a carrier(s) rated A- or better by A.M. Best.	YES	
All policies shall provide a 30-day notice of cancellation to the named insured. The Certificate of Insurance shall provide the following cancellation clause: Should any of the above described policies be cancelled before the expiration date thereof, notice shall be delivered in accordance with the policy provisions.	YES	
Manufacturer agrees to furnish owner with a current Certificate of Insurance with the coverages listed above along with the bid. The certificate shall show the purchaser as the certificate holder.	YES	
<u>SINGLE SOURCE MANUFACTURER</u>		
Bids shall only be accepted from a single source apparatus manufacturer. The definition of single source is a manufacturer that designs and manufactures their products using an integrated approach, including the chassis, cab weldment, cab, pumphouse (including the sheet metal enclosure, valve controls, piping and operators panel) and body being designed, fabricated and assembled on the bidder's premises. The electrical system (hardwire or multiplex) shall be both designed and integrated by the same apparatus manufacturer. The warranties relative to these major components (excluding component warranties such as engine, transmission, axles, pump, etc.) must be from a single source manufacturer and not split between manufacturers (i.e. body, pumphouse, cab weldment and chassis). The bidder shall provide evidence that they comply with this requirement.	YES	
The bidder shall state the location of the factory where the apparatus is to be built.		
<u>NFPA 2016 STANDARDS</u>		
This unit shall comply with the NFPA standards effective January 1, 2016, except for fire department specifications that differ from NFPA specifications. These exceptions shall be set forth in the Statement of Exceptions.	YES	
Certification of slip resistance of all stepping, standing and walking surfaces shall be supplied with delivery of the apparatus.	YES	
All horizontal surfaces designated as a standing or walking surface that are greater than 48.00" above the ground must be defined by a 1.00" wide line along its outside perimeter. Perimeter markings and designated access paths to destination points shall be identified on the customer	YES	

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	Bidder Complies	
	Yes	No
approval print and are shown as approximate. Actual location(s) shall be determined based on materials used and actual conditions at final build. Access paths may pass through hose storage areas and opening or removal of covers or restraints may be required. Access paths may require the operation of devices and equipment such as the aerial device or ladder rack.	YES	
A plate that is highly visible to the driver while seated shall be provided. This plate shall show the overall height, length, and gross vehicle weight rating.	YES	
The manufacturer shall have programs in place for training, proficiency testing and performance for any staff involved with certifications.	YES	
An official of the company shall designate, in writing, who is qualified to witness and certify test results.	YES	
<u>NFPA COMPLIANCY</u>		
Apparatus proposed by the bidder shall meet the applicable requirements of the National Fire Protection Association (NFPA) as stated in current edition at time of contract execution. Fire department's specifications that differ from NFPA specifications shall be indicated in the proposal as "non-NFPA".	YES	
<u>VEHICLE INSPECTION PROGRAM CERTIFICATION</u>		
To assure the vehicle is built to current NFPA standards, the apparatus, in its entirety, shall be third-party, independent, audit-certified through Underwriters Laboratory (UL) that it is built and complies to all applicable standards in the current edition of NFPA 1901. The certification includes: all design, production, operational, and performance testing of not only the apparatus, but those components that are installed on the apparatus (no exception).	YES	
A placard shall be affixed in the driver's side area stating the third party agency, the date, the standard and the certificate number of the whole vehicle audit.	YES	
<u>PUMP TEST</u>		
The pump shall be tested, approved, and certified by Underwriter's Laboratory at the manufacturer's expense. The test results and the pump manufacturer's certification of hydrostatic test; the engine manufacturer's certified brake horsepower curve; and the manufacturer's record of pump construction details shall be forwarded to the Fire Department.	YES	
<u>GENERATOR TEST</u>		
If the unit has a generator, the generator shall be tested, approved, and certified by Underwriters Laboratories at the manufacturer's expense. The test results shall be provided to the Fire Department at the time of delivery.	YES	
<u>BREATHING AIR TEST</u>		
If the unit has breathing air, the apparatus manufacturer shall draw an air sample from the air system and certify that the air quality meets the requirements of NFPA 1989, <i>Standard on Breathing Air Quality for Fire and Emergency Services Respiratory Protection</i> .	YES	

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	Bidder Complies	
	Yes	No
<u>INSPECTION TRIP(S)</u> The bidder shall provide three (3) factory inspection trip(s) for three (3) customer representative(s). The inspection trip(s) shall be scheduled at times mutually agreed upon between the manufacturer's representative and the customer. All costs such as travel, lodging and meals shall be the responsibility of the bidder.	YES	
<u>BID BOND</u> All bidders shall provide a bid bond as security for the bid in the form of a 5% bid bond to accompany their bid. This bid bond shall be issued by a Surety Company who is listed on the U.S. Treasury Departments list of acceptable sureties as published in Department Circular 570. The bid bond shall be issued by an authorized representative of the Surety Company and shall be accompanied by a certified power of attorney dated on or before the date of bid. The bid bond shall include language, which assures that the bidder/principal shall give a bond or bonds as may be specified in the bidding or contract documents, with good and sufficient surety for the faithful performance of the contract, including the Basic One (1) Year Limited Warranty, and for the prompt payment of labor and material furnished in the prosecution of the contract. Notwithstanding any document or assertion to the contrary, any surety bond related to the sale of a vehicle shall apply only to the Basic One (1) Year Limited Warranty for such vehicle. Any surety bond related to the sale of a vehicle shall not apply to any other warranties that are included within this bid (OEM or otherwise) or to the warranties (if any) of any third party of any part, component, attachment or accessory that is incorporated into or attached to the vehicle. In the event of any contradiction or inconsistency between this provision and any other document or assertion, this provision shall prevail.	YES	
<u>PERFORMANCE BOND, 1 YEAR</u> The successful bidder shall furnish a Performance and Payment bond (Bond) equal to 100 percent of the total contract amount within 30 days of the notice of award. Such Bond shall be in a form acceptable to the Owner and issued by a surety company included within the Department of Treasury's Listing of Approved Sureties (Department Circular 570) with a minimum A.M. Best Financial Strength Rating of A and Size Category of XV. In the event of a bond issued by a surety of a lesser Size Category, a minimum Financial Strength rating of A+ is required. Bidder and Bidder's surety agree that the Bond issued hereunder, whether expressly stated or not, also includes the surety's guarantee of the vehicle manufacturer's Basic One (1) Year Limited Warranty period included within this proposal. Owner agrees that the penal amount of this bond shall be simultaneously amended to 100% percent of the total contract amount upon satisfactory acceptance and delivery of the vehicle(s) included herein. Notwithstanding anything contained within this contract to the contrary, the surety's liability for any warranties of any type shall not exceed one (1) year from the date of such satisfactory acceptance and delivery, or the actual Basic One (1) Year Limited Warranty period, whichever is shorter.	YES	

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	Bidder Complies	
	Yes	No
<u>APPROVAL DRAWING</u> A drawing of the proposed apparatus shall be provided for approval before construction begins. The sales representative shall also have a copy of the same drawing. The finalized and approved drawing shall become part of the contract documents. This drawing shall indicate the chassis make and model, location of the lights, siren, horns, compartments, major components, etc. A "revised" approval drawing of the apparatus shall be prepared and submitted by the manufacturer to the purchaser showing any changes made to the approval drawing.	YES	
<u>ELECTRICAL WIRING DIAGRAMS</u> Two (2) electrical wiring diagrams, prepared for the model of chassis and body, shall be provided.	YES	
<u>CHASSIS</u> Chassis provided shall be a new, tilt-type custom fire apparatus. The chassis shall be manufactured in the apparatus body builder's facility eliminating any split responsibility. The chassis shall be designed and manufactured for heavy-duty service, with adequate strength, capacity for the intended load to be sustained, and the type of service required.	YES	
<u>WHEELBASE</u> The wheelbase of the vehicle shall be no greater than 191.5".	YES	
<u>GVW RATING</u> The gross vehicle weight rating shall be a minimum of 47,000#.	YES	
<u>FRAME</u> The chassis frame shall be built with two (2) steel channels bolted to five (5) cross members or more, depending on other options of the apparatus.	YES	
<u>FRONT AXLE</u> The front axle shall have a rated capacity of 20,000 lb. To overcome traction and mobility issues, the axle shall include EZ Trac® on demand all wheel drive hydraulic drive assist. The front axle shall be provided with EZ Trac® mode package. A switch shall be provided on the instrument panel allowing the driver to select between different modes that can be used depending on the terrain such as, mud, snow, or sand. A hydraulic unit including hydraulic reservoir, oil filtration, electric cooling fan, hydraulic control valve and ECU will be mounted in the apparatus body. Hydraulic hoses shall be routed through the frame.	YES	
<u>FRONT SUSPENSION</u> The front springs shall be a Standens, three (3)-leaf, taper leaf design, 54.00" long x 4.00" wide, with a ground rating of 20,000 lb.	YES	

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	Bidder Complies	
	Yes	No
The two (2) top leaves shall wrap the forward spring hanger pin. The top leaf shall also wrap the rear spring hanger pin. Both the front and rear eyes shall be Berlin style wraps that shall place the eyes in the horizontal plane within the main leaf. This shall reduce bending stress from acceleration and braking.	YES	
A steel encased rubber bushing shall be used in the spring eye. The steel encased rubber bushing shall be maintenance free and require no lubrication.	YES	
<u>SHOCK ABSORBERS</u>		
Heavy-duty telescoping shock absorbers shall be provided on the front axle.	YES	
<u>FRONT TIRES</u>		
The front tires shall be Michelin 315/80R22.5 radials, 20 ply, load range L, all position XZU® S2 tread, rated for 20,000 lb maximum axle load and 75 mph maximum speed.	YES	
The tires shall be mounted on Alcoa® 22.50" x 9.00" polished aluminum disc wheels.	YES	
<u>REAR AXLE</u>		
The rear axle shall be a Dana, Model S26-190, with a capacity of 27,000 lb.	YES	
<u>TOP SPEED OF VEHICLE</u>		
A rear axle ratio shall be furnished to allow the vehicle to reach a top speed of 68 mph.	YES	
<u>REAR SUSPENSION</u>		
The rear suspension shall be Standens, semi-elliptical, 3.00" wide x 53.00" long, 12-leaf pack with a ground rating of 27,000 lb. The spring hangers shall be castings.	YES	
The two (2) top leaves shall wrap the forward spring hanger pin, and the rear of the spring shall be a slipper style end that shall ride in a rear slipper hanger. To reduce bending stress due to acceleration and braking, the front eye shall be a berlin eye that shall place the front spring pin in the horizontal plane within the main leaf.	YES	
A steel encased rubber bushing shall be used in the spring eye. The steel encased rubber bushing shall be maintenance free and require no lubrication.	YES	
<u>REAR OIL SEALS</u>		
Oil seals shall be provided on the rear axle(s).	YES	
<u>DRIVER CONTROL DIFFERENTIAL LOCK (DCDL)</u>		
A rear axle shall be equipped with a driver controlled differential lock (DCDL).	YES	
The control shall be located within easy reach of the driver. An indicator light shall be provided next to the control switch.	YES	

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	Bidder Complies	
	Yes	No
<u>REAR TIRES</u> Rear tires shall be four (4) Michelin 12R22.50 radials, 16 ply all season XDN2 tread, rated for 27,120 lb maximum axle load and 75 mph maximum speed.	YES	
The tires shall be mounted on Alcoa 22.50" x 8.25" polished aluminum disc wheels with a ten (10) stud 11.25" bolt circle.	YES	
<u>TIRE BALANCE</u> All tires shall be balanced with Counteract balancing beads. The beads shall be inserted into the tire and eliminate the need for wheel weights.	YES	
<u>TIRE PRESSURE MANAGEMENT</u> There shall be a RealWheels LED AirSecure™ tire alert pressure management system provided, that shall monitor each tire's pressure. A sensor shall be provided on the valve stem of each tire for a total of six (6) tires.	YES	
The sensor shall calibrate to the tire pressure when installed on the valve stem for pressures between 10 and 200 psi. The sensor shall activate an integral battery operated LED when the pressure of that tire drops 5 to 8 psi.	YES	
Removing the cap from the sensor shall indicate the functionality of the sensor and battery. If the sensor and battery are in working condition, the LED shall immediately start to flash.	YES	
<u>REAR HUB COVERS</u> A pair of stainless steel high hat hub covers shall be provided on rear axle hubs.	YES	
<u>CHROME LUG NUT COVERS</u> Chrome lug nut covers shall be supplied on front and rear wheels.	YES	
<u>MUD FLAPS</u> Mud flaps shall be installed behind the front and rear wheels of the apparatus.	YES	
<u>AUTOMATIC TIRE CHAINS</u> One (1) pair of ONSPOT automatic tire chains shall be provided at the rear. System shall be electric over air operated with switch on cab instrument panel. System to be operable at speeds up to 35 mph.	YES	
<u>WHEEL CHOCKS</u> There shall be one (1) pair of folding Ziamatic, Model SAC-44-E, aluminum alloy, Quick-Choc wheel blocks with easy-grip handle provided.	YES	
<u>Wheel Chock Brackets</u> There shall be one (1) pair of Zico, Model SQCH-44-H, horizontal mounting wheel chock brackets provided for the Ziamatic, Model SAC-44-E, folding wheel chocks. The brackets shall be made of aluminum and consist of a quick release spring loaded rod to hold the wheel chocks in place. The brackets shall be mounted below the left side rear compartment.	YES	

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	Bidder Complies	
	Yes	No
<u>ELECTRONIC STABILITY CONTROL</u> A vehicle control system shall be provided as an integral part of the ABS brake system from Meritor Wabco. The system shall monitor and update the lateral acceleration (cornering) of the vehicle and compare it to a critical threshold where a side roll event may occur. If the critical threshold is met, the vehicle control system shall automatically reduce engine RPM, engage the engine retarder (if equipped), and selectively apply brakes to the individual wheel ends of the front and rear axles to reduce the possibility of a side roll event. The system shall monitor directional stability through an electronic lateral accelerometer, steer angle sensor and yaw rate sensor. If spinout or drift out is detected, the vehicle control system shall selectively apply brakes to the individual wheel ends of the front and rear axles to assist in bringing the vehicle back to its intended direction. The operator shall continue to provide steering input in the desired direction as the system compensates. Electronic Stability Control is not a guarantee that a side roll event, spinout or drift out shall not occur. ESC is a supplemental safety system that shall be used in conjunction with safe driving habits. <u>ANTI-LOCK BRAKE SYSTEM</u> The vehicle shall be equipped with a Wabco 4S4M, anti-lock braking system. The ABS shall provide a four (4) channel anti-lock braking control on both the front and rear wheels. A digitally controlled system that utilizes microprocessor technology shall control the anti-lock braking system. Each wheel shall be monitored by the system. When any wheel begins to lockup, a signal shall be sent to the control unit. This control unit shall then reduce the braking of that wheel for a fraction of a second and then reapply the brake. This anti-lock brake system shall eliminate the lockup of any wheel thus helping to prevent the apparatus from skidding out of control. <u>AUTOMATIC TRACTION CONTROL</u> An anti-slip feature shall be included with the ABS. The Automatic Traction Control shall be used for traction in poor road and weather conditions. The Automatic Traction Control shall act as an electronic differential lock that shall not allow a driving wheel to spin, thereby supplying traction at all times. The ABS electronic control unit (ECU) shall work with the engine ECU, sharing information concerning wheel slip. Engine ECU shall use information to control engine speed, allowing only as much throttle application as required for the available traction, regardless of how much the driver is asking for. An "off road traction" switch shall be provided on the instrument panel. Activation of the switch shall allow additional tire slip to let the truck climb out and get on top of deep snow or mud. <u>BRAKES</u> The service brake system shall be full air type by Bendix®.	YES YES YES YES YES YES YES	

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	Bidder Complies	
	Yes	No
Front brakes shall be Model ADB22X™, disc type with automatic pad wear adjustment and 17.00" rotors for improved stopping distance.	YES	
The rear brakes shall be Bendix™ 16.50" x 8.63" cam operated with automatic slack adjusters.	YES	
<u>AIR COMPRESSOR, BRAKE SYSTEM</u>		
The air compressor shall be a Wabco single piston compressor with a 26.8 CI displacement.	YES	
<u>BRAKE SYSTEM</u>		
The brake system shall include:		
• Brake treadle valve	YES	
• Heated automatic moisture ejector on air dryer	YES	
• Total air system minimum capacity of 4,272 cubic inches	YES	
• Two (2) air pressure gauges with a red warning light and an audible alarm, that activates when air pressure falls below 60 psi	YES	
• Spring set parking brake system	YES	
• Parking brake operated by a push-pull style control valve	YES	
• A parking "brake on" indicator light on instrument panel	YES	
• Park brake relay/inversion and anti-compounding valve, in conjunction with a double check valve system, with an automatic spring brake application at 40 psi	YES	
• A pressure protection valve to prevent all air operated accessories from drawing air from the air system when the system pressure drops below 80 psi (550 kPa)	YES	
• 1/4 turn drain valves on each air tank	YES	
The air tank shall be primed and painted to meet a minimum 750 hour salt spray test.	YES	
To reduce the effects of corrosion, the air tank shall be mounted with stainless steel brackets (no exception).	YES	
<u>BRAKE SYSTEM AIR DRYER</u>		
The air dryer shall be WABCO System Saver 1200 with spin-on coalescing filter cartridge and 100 watt heater.	YES	
<u>BRAKE LINES</u>		
Color-coded nylon brake lines shall be provided. The lines shall be wrapped in a heat protective loom where necessary in the chassis.	YES	
<u>AIR INLET</u>		
One (1) air inlet with 3D series male coupling shall be provided. It shall allow station air to be supplied to the apparatus brake system through a shoreline hose. The inlet shall be located forward in the driver side lower step well of cab. A check valve shall be provided to prevent reverse flow of air. The inlet shall discharge into the "wet" tank of the brake system. A mating female fitting shall also be provided with the loose equipment.	YES	

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		Bidder Complies	
		Yes	No
<u>ENGINE</u>			
The chassis shall be powered by an electronically controlled engine as described below:			
Power:	510 hp at 1600rpm	YES	
Torque:	1850 lb-ft at 1000rpm	YES	
Governed Speed:	1900 rpm	YES	
Emissions Certification:	EPA 2021	YES	
Fuel:	Diesel	YES	
Cylinders:	Six (6)	YES	
Displacement:	12.9L	YES	
Starter:	DP60	YES	
Fuel Filters:	Dual cartridge style with check valve, water separator, and water in fuel sensor	YES	
The engine shall include On-board diagnostics (OBD), which provides self diagnostic and reporting. The system shall give the owner or repair technician access to state of health information for various vehicle sub systems. The system shall monitor vehicle systems, engine and after treatment. The system shall illuminate a malfunction indicator light on the dash console if a problem is detected.		YES	
<u>HIGH IDLE</u>			
A high idle switch shall be provided, inside the cab, on the instrument panel, that shall automatically maintain a preset engine rpm. A switch shall be installed, at the cab instrument panel, for activation/deactivation.		YES	
The high idle shall be operational only when the parking brake is on and the truck transmission is in neutral. A green indicator light shall be provided, adjacent to the switch. The light shall illuminate when the above conditions are met. The light shall be labeled "OK to Engage High Idle."		YES	
<u>ENGINE BRAKE</u>			
The compression release brake option is a fully integrated engine braking system. It utilizes the turbocharger and backpressure valve, but adds in a hydraulically operated compression brake to increase overall retarding power.		YES	
To maximize the effectiveness of the compression brake the engine brake system works in conjunction with the turbocharger and back pressure valve.		YES	
The driver shall be able to turn the engine brake system on/off and have a high, medium and low setting		YES	

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	Bidder Complies	
	Yes	No
<u>CLUTCH FAN</u> A fan clutch shall be provided. The fan clutch shall be automatic when the pump transmission is in "Road" position, and constantly engaged when in "Pump" position.	YES	
<u>ENGINE AIR INTAKE</u> The engine air intake shall be located above the engine cooling package. A stainless-steel metal screen shall be installed at the inlet of the air intake system that shall meet NFPA 1901 requirements. The air cleaner and stainless steel screen shall be easily accessible by tilting the cab.	YES YES YES	
<u>EXHAUST SYSTEM</u> The exhaust system shall include a Single Module™ aftertreatment device to meet current EPA standards. The exhaust system shall be stainless steel from the turbo to the inlet of the aftertreatment device, and shall be 5.00" in diameter. An insulation wrap shall be provided on all exhaust pipes between the turbo and aftertreatment device to minimize the heat loss to the aftertreatment device. The exhaust shall terminate horizontally ahead of the right side rear wheels. A tailpipe diffuser shall be provided to reduce the temperature of the exhaust as it exits. Heat deflector shields shall be provided to isolate chassis and body components from the heat of the tailpipe diffuser.	YES	
<u>EXHAUST MODIFICATION</u> The exhaust pipe shall be brought out from under the body at a 20 degree angle to the rear. The diffuser shall not be cut straight to the body, and the outer edge shall extend slightly outside of the body. There shall be a minimum of 2.50" from the exhaust pipe to the under side of the body heat shield. The last 7.00" of the exhaust shall be free of hangers and/or clamps.	YES YES	
<u>RADIATOR</u> The radiator and the complete cooling system shall meet or exceed NFPA and engine manufacturer cooling system standards. For maximum corrosion resistance and cooling performance, the entire radiator core shall be constructed using long life aluminum alloy. The radiator core shall consist of aluminum fins, having a serpentine design, brazed to aluminum tubes. No solder joints or leaded material of any kind shall be acceptable in the core assembly. The radiator core shall have a minimum front area of 1060 square inches. Supply tank shall be made of heavy duty glass-reinforced nylon and the return tank shall be made of aluminum. Both tanks shall be crimped onto the core assembly using header tabs and a compression gasket to complete the radiator core assembly. There shall be a full steel frame around the inserts to enhance cooling system durability and reliability. The radiator shall be compatible with commercial antifreeze solutions.	YES YES YES YES YES	

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	Bidder Complies	
	Yes	No
The radiator assembly shall be isolated from the chassis frame rails with rubber isolators to prevent the development of leaks caused by twisting or straining when the apparatus operates over uneven terrain.	YES	
The radiator shall include a de-aeration/expansion tank. For visual coolant level inspection, the radiator shall have a built-in sight glass. The radiator shall be equipped with a 15 psi pressure relief cap.	YES	
A drain port shall be located at the lowest point of the cooling system and/or the bottom of the radiator to permit complete flushing of the coolant from the system.	YES	
Shields or baffles shall be provided to prevent recirculation of hot air to the inlet side of the radiator.	YES	
<u>COOLANT LINES</u>		
Gates, or Goodyear, rubber hose shall be used for all engine coolant lines installed by the chassis manufacturer.	YES	
Hose clamps shall be stainless steel constant torque type to prevent coolant leakage. They shall react to temperature changes in the cooling system and expand or contract accordingly while maintaining a constant clamping pressure on the hose.	YES	
<u>FUEL TANK</u>		
A 65 gallon fuel tank shall be provided and mounted at the rear of the chassis. The tank shall be constructed of 12-gauge, hot rolled steel. It shall be equipped with swash partitions and a vent. To eliminate the effects of corrosion, the fuel tank shall be mounted with stainless steel straps (no exception).	YES	
A 0.75" drain plug shall be provided in a low point of the tank for drainage.	YES	
A fill inlet shall be located on the left hand side of the body and be covered with a hinged, spring loaded, stainless steel door that is marked "Ultra Low Sulfur - Diesel Fuel Only."	YES	
A 0.50" diameter vent shall be provided running from top of tank to just below fuel fill inlet.	YES	
The tank shall meet all FHWA 393.67 requirements including a fill capacity of 95 percent of tank volume.	YES	
All fuel lines shall be provided as recommended by the engine manufacturer.	YES	
<u>DIESEL EXHAUST FLUID TANK</u>		
A diesel exhaust fluid (DEF) tank shall be provided.	YES	
The tank shall meet the engine manufacturers requirement for 10 percent expansion space in the event of tank freezing.	YES	

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		Bidder Complies	
		Yes	No
The tank shall include an integrated heater unit that utilizes engine coolant to thaw the DEF in the event of freezing.		YES	
<u>TRANSMISSION</u>			
An Allison 5th generation, Model EVS 4000P, electronic, torque converting, automatic transmission shall be provided.		YES	
The transmission shall be equipped with prognostics to monitor oil life, filter life, and transmission health. A wrench icon on the shift selector's digital display shall indicate when service is due.		YES	
Two (2) PTO openings shall be located on left side and top of converter housing (positions 8 o'clock and 1 o'clock).		YES	
A transmission temperature gauge with an amber light and buzzer shall be installed on the cab instrument panel.		YES	
<u>TRANSMISSION SHIFTER</u>			
A six (6)-speed push button shift module shall be mounted to right of driver on console. Shift position indicator shall be indirectly lit for after dark operation.		YES	
The transmission ratio shall be:			
1st	3.51 to 1.00	YES	
2nd	1.91 to 1.00	YES	
3rd	1.43 to 1.00	YES	
4th	1.00 to 1.00	YES	
5th	0.75 to 1.00	YES	
6th	0.64 to 1.00	YES	
R	4.80 to 1.00	YES	
<u>TRANSMISSION PROGRAMMING</u>			
The transmission shall be programmed to automatically shift the transmission to neutral when the parking brake is set to simplify operation and increase operational safety (no exception).		YES	
<u>TRANSMISSION COOLER</u>			
A Modine plate and fin transmission oil cooler shall be provided using engine coolant to control the transmission oil temperature.		YES	
<u>DRIVELINE</u>			
Drivelines shall be a heavy-duty metal tube and be equipped with Spicer® 1810 universal joints.		YES	
The shafts shall be dynamically balanced before installation.		YES	
A splined slip joint shall be provided in each driveshaft where the driveline design requires it. The slip joint shall be coated with Glidecoat® or equivalent.		YES	

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	Bidder Complies	
	Yes	No
<u>STEERING</u> Dual steering gear, with integral heavy-duty power steering, shall be provided. For reduced system temperatures, the power steering shall incorporate an air to oil cooler and Paccar hydraulic pump with integral pressure and flow control. All power steering lines shall have wire braded lines with crimped fittings. A tilt and telescopic steering column shall be provided to improve fit for a broader range of driver configurations.	YES	
<u>STEERING WHEEL</u> The steering wheel shall be 18.00" in diameter, have tilting and telescoping capabilities, and a 4-spoke design.	YES	
<u>LOGO AND CUSTOMER DESIGNATION ON DASH</u> The dash panel shall have an emblem containing the fire apparatus manufacturer's logo and customer name. The emblem shall have three (3) rows of text for the customer's department name. There shall be a maximum of eight (8) characters in the first row, 11 characters in the second row and 11 characters in the third row. The first row of text shall be: GLENWOOD The second row of text shall be: SPRINGS The third row of text shall be: blank	YES YES YES	
<u>BUMPER</u> A one (1) piece, ten (10) gauge, 304-2B type polished stainless steel bumper, minimum of 10.00" high, shall be attached to a bolted modular extension frame constructed of 50,000 psi tensile steel "C" channel mounted directly behind it to provide adequate support strength. The bumper shall be extended 13.00" from front face of cab.	YES YES	
<u>Gravel Pan</u> A gravel pan, constructed of bright aluminum treadplate, shall be furnished between the bumper and cab face. The gravel pan shall be properly supported from the underside to prevent flexing and vibration of the aluminum treadplate.	YES	
<u>CENTER HOSE TRAY</u> A hose tray, constructed of aluminum, shall be placed in the center of the bumper extension. The tray shall have a capacity of 100' of 1.75" double jacket cotton-polyester hose. Black rubber grating shall be provided at the bottom of the tray. Drain holes are also provided.	YES YES YES	
<u>Center Hose Tray Cover</u> A bright aluminum treadplate cover shall be provided over the center hose tray.	YES	

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	Bidder Complies	
	Yes	No
The cover shall be attached with a stainless steel hinge.	YES	
There shall be two (2) flush lift and turn latches provided to secure the cover in the closed position and a pneumatic stay arm shall hold the cover in the open position.	YES	
<u>LIFT AND TOW MOUNTS</u>		
Mounted to the frame extension shall be lift and tow mounts. The lift and tow mounts shall be designed and positioned to adapt to certain tow truck lift systems.	YES	
The lift and tow mounts with eyes shall be painted the same color as the frame.	YES	
<u>TOW EYES</u>		
Two (2) .75" thick stainless steel tow eyes shall be installed under the bumper and attached to the front frame members. The tow eyes shall be designed and positioned to allow up to a 6,000 lb straight horizontal pull in line with the centerline of the vehicle. The tow eyes shall not be used for lifting of the apparatus.	YES	
The tow eyes shall not be painted.	YES	
<u>CAB</u>		
The cab shall be designed specifically for the fire service and manufactured by the chassis builder.	YES	
The cab shall be built by the apparatus manufacturer in a facility located on the manufacturer's premises (no exception).	YES	
For reasons of structural integrity and enhanced occupant protection, the cab shall be a heavy-duty design.	YES	
The cab shall be 96.00" wide (outside door skin to outside door skin) to maintain maximum maneuverability (no exception).	YES	
The forward cab section shall have an overall height (from the cab roof to the ground) of approximately 99.00". The crew cab section shall have a 10.00" raised roof, with an overall cab height of approximately 109.00". The overall height listed shall be calculated based on a truck configuration with the lowest suspension weight rating, the smallest diameter tires for the suspension, no water weight, no loose equipment weight, and no personnel weight. Larger tires, wheels, and suspension shall increase the overall height listed.	YES	
The crew cab shall be a totally enclosed design with the interior area completely open to improve visibility and verbal communication between the occupants.	YES	
The cab shall be a full tilt cab style.	YES	
A 3-point cab mount system with rubber isolators shall improve ride quality by isolating chassis vibrations from the cab.	YES	

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	Bidder Complies	
	Yes	No
<u>CAB ROOF DRIP RAIL</u> For enhanced protection from inclement weather, a drip rail shall be furnished on the sides of the cab. The drip rail shall be painted to match the cab roof, and bonded to the sides of the cab. The drip rail shall extend the full length of the cab roof.	YES	
<u>INTERIOR CAB INSULATION</u> The cab shall include 1.00" insulation in the ceiling, 1.50" insulation in the side walls, and 2.00" insulation in the rear wall to maximize acoustic absorption and thermal insulation.	YES	
<u>FENDER LINERS</u> Full circular inner fender liners in the wheel wells shall be provided.	YES	
<u>PANORAMIC WINDSHIELD</u> A safety glass windshield shall be provided with over 2,775 square inches of clear viewing area. The windshield shall be full width and shall provide the occupants with a panoramic view. The windshield shall consist of three (3) layers: outer light, middle safety laminate, and inner light. The outer light layer shall provide superior chip resistance. The middle safety laminate layer shall prevent the windshield glass pieces from detaching in the event of breakage. The inner light shall provide yet another chip resistant layer. The cab windshield shall be bonded to the aluminum windshield frame using a urethane adhesive. A custom frit pattern shall be applied on the outside perimeter of the windshield for a finished automotive appearance.	YES	
<u>WINDSHIELD WIPERS</u> Electric windshield wipers with washer shall be provided that meet FMVSS and SAE requirements.	YES	
The washer reservoir shall be able to be filled without raising the cab.	YES	
<u>ENGINE TUNNEL</u> The engine hood shall be insulated for protection from heat and sound. The noise insulation keeps the dBA level within the limits stated in the current NFPA 1901 standards.	YES	
<u>CAB REAR WALL EXTERIOR COVERING</u> The exterior surface of the rear wall of the cab shall be painted job color.	YES	
<u>CAB LIFT</u> A hydraulic cab lift system shall be provided consisting of an electric powered hydraulic pump, dual lift cylinders, and necessary hoses and valves.	YES	
Hydraulic pump shall have a manual override for backup in the event of electrical failure.	YES	
Lift controls shall be located on the right side pump panel or front area of the body in a convenient location.	YES	
The cab shall be capable of tilting 43 degrees to accommodate engine maintenance and removal.	YES	

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	Bidder Complies	
	Yes	No
The cab shall be locked down by a 2-point normally closed spring loaded hook type latch that fully engages after the cab has been lowered. The system shall be hydraulically actuated to release the normally closed locks when the cab lift control is in the raised position and cab lift system is under pressure. When the cab is completely lowered and system pressure has been relieved, the spring loaded latch mechanisms shall return to the normally closed and locked position.	YES	
The hydraulic cylinders shall be equipped with a velocity fuse that protects the cab from accidentally descending when the control is located in the tilt position.	YES	
For increased safety, a redundant mechanical stay arm shall be provided that must be manually put in place on the left side between the chassis and cab frame when the cab is in the raised position. This device shall be manually stowed to its original position before the cab can be lowered.	YES	
<u>Cab Lift Interlock</u> The cab lift system shall be interlocked to the parking brake. The cab tilt mechanism shall be active only when the parking brake is set and the ignition switch is in the on position. If the parking brake is released, the cab tilt mechanism shall be disabled.	YES	
<u>GRILLE</u> A bright finished aluminum mesh grille screen, inserted behind a bright finished grille surround, shall be provided on the front center of the cab.	YES	
<u>DOOR JAMB SCUFFPLATES</u> All cab door jambs shall be furnished with a polished stainless steel scuffplate, mounted on the striker side of the jamb.	YES	
<u>SIDE OF CAB MOLDING</u> Chrome molding shall be provided on both sides of cab.	YES	
<u>MIRRORS</u> One (1) Ramco, Model 6001-PCHR, polished aluminum mirror shall be mounted on each of the side of the cab corners. The mirrors shall be 9.25" wide x 13.50" high, with a convex section. The mirror head shall have a highly polished aluminum finish.	YES	
The flat glass in each mirror shall be heated and adjustable, with remote controls that are convenient to the driver.	YES	
The convex section in each mirror shall be heated and adjustable, with remote controls that are convenient to the driver.	YES	
<u>DOORS</u> To enhance entry and egress to the cab, the forward cab doors shall be a minimum of 37.50" wide x 75.50" high. The crew cab doors shall be located on the sides of the cab and shall be	YES	

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	Bidder Complies	
	Yes	No
constructed in the same manner as the forward cab doors. The crew cab door openings shall be a minimum of 34.30" wide x 85.50" high.	YES	
A customized, vertical, pull-down type door handle shall be provided on the exterior of each cab door. The finish of the door handle shall be chrome/black. The exterior handle shall be designed specifically for the fire service to prevent accidental activation, and shall provide 4.00" wide x 2.00" deep hand clearance for ease of use with heavy gloved hands.	YES	
Each door shall also be provided with an interior flush, open style paddle handle that shall be readily operable from fore and aft positions, and be designed to prevent accidental activation. The interior handles shall provide 4.00" wide x 1.25" deep hand clearance for ease of use with heavy gloved hands.	YES	
The cab doors shall be provided with both interior (rotary knob) and exterior (keyed) locks exceeding FMVSS standards. The keys shall be Model 751. The locks shall be capable of activating when the doors are open or closed. The doors shall remain locked if locks are activated when the doors are opened, then closed.	YES	
A full length, heavy duty, stainless steel, piano-type hinge shall be provided on all cab doors. There shall be double automotive-type rubber seals around the perimeter of the door framing and door edges to ensure a weather-tight fit.	YES	
A chrome grab handle shall be provided on the inside of each cab door for ease of entry.	YES	
A red webbed grab handle shall be installed on the crew cab door stop strap. The grab handles shall be securely mounted.	YES	
The cab steps at each cab door location shall be located inside the cab doors to protect the steps from weather elements.	YES	
<u>Door Panels</u>		
The inner cab door panels shall be constructed out of brushed stainless steel.	YES	
<u>MANUAL CAB DOOR WINDOWS</u>		
All cab entry doors shall contain a conventional roll down window.	YES	
<u>CAB STEPS</u>		
The forward cab and crew cab access steps shall be a full size two (2) step design to provide largest possible stepping surfaces for safe ingress and egress. The bottom steps shall be designed with a grip pattern punched into bright aluminum treadplate material to provide support, slip resistance, and drainage. The bottom steps shall be a bolt-in design to minimize repair costs should they need to be replaced. The forward cab steps shall be a minimum 25.00" wide, and the crew cab steps shall be 21.65" wide with a 10.00" minimum depth. The inside cab steps shall not exceed 16.50" in height.	YES	
The vertical surfaces of the step well shall be aluminum treadplate.	YES	

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	Bidder Complies	
	Yes	No
<u>CAB EXTERIOR HANDRAILS</u> A 1.25" diameter slip-resistant, knurled aluminum handrail shall be provided adjacent to each cab and crew cab door opening to assist during cab ingress and egress.	YES	
<u>STEP LIGHTS</u> There shall be six (6) white LED step lights installed for cab and crew cab access steps. - One (1) light for the driver's access steps. - Two (2) lights for the driver's side crew cab access steps. - Two (2) lights for the passenger's side crew cab access steps. - One (1) light for the passenger's side access step. In order to ensure exceptional illumination, each light shall provide a minimum of 25 foot-candles (fc) covering an entire 15" x 15" square placed ten (10) inches below the light and a minimum of 1.5 fc covering an entire 30" x 30" square at the same ten (10) inch distance below the light. The lights shall be activated when the battery switch is on and the adjacent door is opened.	YES YES YES YES YES	
<u>FENDER CROWNS</u> Stainless steel fender crowns shall be installed at the cab wheel openings.	YES	
<u>HANDRAILS BELOW CAB WINDSHIELD</u> A 7.00" long x 1.25" diameter handrail shall be mounted below the front cab windshield, one (1) on each side. The handrails shall be extruded aluminum with a ribbed design to provide a positive gripping surface.	YES	
<u>CREW CAB WINDOWS</u> One (1) fixed window with tinted glass shall be provided on each side of the cab, to the rear of the front cab door. The windows shall be sized to enhance light penetration into the cab interior. The windows shall measure 18.70" wide x 23.75" high.	YES	
<u>CAB AIR FILTRATION</u> The vehicle shall be equipped with a CrewProtect™ air filtration system to provide purification of the interior air of the cab and crew cab. The multi-stage filtration system shall remove particulates, volatile organic compounds, aerosol carrying viruses and bacteria from the air.	YES	
System Construction The housing shall be constructed of powder coated stainless steel and shall be 12.00" wide x 4.50" high x 20.00" long. The angled surface shall be provided with an additional 2.00" of clearance for air flow. The unit shall be mounted on a mounting plate, vertically, to the rear of the driver seat. The expected filter life shall be no less than 1,800 active hours of usage (6 months). There shall be no additional replacement filters shipped loose with the unit. The filter shall be	YES YES	

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	Bidder Complies	
	Yes	No
designed to neutralize harmful chemical contaminants and is safe to discard as normal trash with no special handling requirements.	YES	
System Operating Conditions		
CrewProtect shall automatically run when the truck is operating. And shall not be required to turn on or off or adjust the flow rate. The fan shall operate at 100 CFMs and only 60.2 decibels.	YES	
Electrical Wiring/Function		
The system shall be 12 VDC powered from the vehicle power supply and/or an external 12 VDC source. The system shall draw a maximum of 2 amps and have a 5-amp integrated fuse in the wire harness.	YES	
<u>CUP HOLDER</u>		
There shall be four (4) cup holder(s) provided. Each cup holder shall have self-adjusting fingers that automatically grip beverage containers of various sizes. A recess in the cup holder shall allow it to hold beverage containers with handles.	YES	
The cup holder(s) shall be located at customer pick-up.	YES	
<u>CAB DASH</u>		
The driver side dash, switch panel located to the right of the driver, and center console shall be an easily removable high impact resistant polymer cover.	YES	
The instrument gauge cluster shall be surrounded with a high impact ABS plastic contoured to the same shape of the instrument gauge cluster.	YES	
The officer side dash shall be a flat top design with an upper beveled edge to provide easy maintenance and shall be constructed out of aluminum and painted to match the cab interior.	YES	
<u>MOUNTING PLATE ON ENGINE TUNNEL</u>		
Equipment installation provisions shall be installed on the engine tunnel.	YES	
A 0.188" smooth aluminum plate shall be bolted to the top surface of the engine tunnel. The plate shall follow the contour of the engine tunnel and shall run the entire length of the engine tunnel. The plate shall be spaced off the engine tunnel 1.00" to allow for wire routing below the plate.	YES	
The mounting surface shall be painted to match the cab interior.	YES	
<u>COMPUTER MOUNTING PLATE</u>		
There shall be one (1) plate with an angled support located to the left of the officer on the engine tunnel. The plate shall be 9.00" wide at the front and 10.00" long. The plate shall be spaced up 2.00".	YES	

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	Bidder Complies	
	Yes	No
The plate shall be constructed of 0.188" aluminum and painted black.	YES	
<u>CAB INTERIOR</u>		
The cab interior shall be constructed of primarily metal (painted aluminum) to withstand the severe duty cycles of the fire service.	YES	
The engine tunnel shall be padded and covered, on the top and sides, with dark silver gray 36 ounce leather grain vinyl resistant to oil, grease, and mildew.	YES	
For durability and ease of maintenance, the cab interior side walls shall be painted aluminum. The rear wall shall be painted aluminum.	YES	
Headliner shall be installed in both forward and rear cab sections. Headliner material shall be vinyl. A sound barrier shall be part of its composition. Material shall be installed on aluminum sheet and securely fastened to interior cab ceiling.	YES	
Forward portion of cab headliner shall permit easy access for service of electrical wiring or other maintenance needs.	YES	
All wiring shall be placed in metal raceways. Routing through holes in tubing shall not be accepted due to chaffing that installation shall cause.	YES	
<u>CAB INTERIOR UPHOLSTERY</u>		
The cab interior upholstery shall be 36 oz dark silver gray vinyl.	YES	
<u>CAB INTERIOR PAINT</u>		
The cab interior metal surfaces, excluding the rear heater panels, shall be painted fire smoke gray, vinyl texture paint.	YES	
The rear heater panels shall be painted black, vinyl textured paint.	YES	
<u>CAB FLOOR</u>		
The cab and crew cab floor areas shall be covered with easy to clean, anti-microbial Lonseal®, Lonplate® II, Gun Black vinyl flooring. The durable top surface material shall have an embossed treadplate pattern to provide slip resistance. All seams and edges shall be sealed to be impermeable to moisture.	YES	
Additionally, the material has a 0.25" thick closed cell foam (no water absorption) under lamenent which offers a sound dampening material for reducing sound levels.	YES	
<u>DEFROST/AIR CONDITIONING SYSTEM</u>		
A combination heater, defroster and air conditioning system shall be installed in the cab.	YES	

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	Bidder Complies	
	Yes	No
<u>Cab Defroster</u> A 54,000 BTU heater-defroster unit with 690 SCFM of air flow shall be provided inside the cab. The heater-defrost shall be installed in the forward portion of the cab ceiling. Air outlets shall be strategically located in the cab header extrusion per the following: • One (1) adjustable shall be directed towards the left side cab window • One (1) adjustable shall be directed towards the right side cab window • Six (6) fixed outlets shall be directed at the windshield The defroster shall be capable of clearing 98 percent of the windshield and side glass when tested under conditions where the cab has been cold soaked at 0 degrees Fahrenheit for 10 hours, and a 2 ounce per square inch layer of frost/ice has been able to build up on the exterior windshield. The defroster system shall meet or exceed SAE J382 requirements.	YES	
<u>Cab/Crew Auxiliary Heater</u> There shall be one (1) 31,000 BTU auxiliary heater with 560 SCFM of air flow provided in each outboard rear facing seat risers with a dual scroll blower. An aluminum plenum incorporated into the cab structure used to transfer heat to the forward positions.	YES	
<u>Air Conditioning</u> A condenser shall be a 59,644 BTU output that meets and exceeds the performance specification shall be mounted on the radiator. Mounting the condenser below the cab or body would reduce the performance of the system and shall not be acceptable. The air conditioning system shall be capable of cooling the average cab temperature from 100 degrees Fahrenheit to 75 degrees Fahrenheit at 50 percent relative humidity within 30 minutes. The cooling performance test shall be run only after the cab has been heat soaked at 100 degrees Fahrenheit for a minimum of 4 hours. The evaporator unit shall be installed in the rear portion of the cab ceiling over the engine tunnel. The evaporator shall include one (1) high performance heating core, one (1) high performance cooling core with (1) plenum directed to the front and one (1) plenum directed to the rear of the cab. The rear plenum sa formed plastic cover. The evaporator unit shall have a 52,000 BTU at 690 SCFM rating that meets and exceeds the performance specifications. Adjustable air outlets shall be strategically located on the forward plenum cover per the following: • Four (4) shall be directed towards the seating position on the left side of the cab • Four (4) shall be directed towards the seating position on the right side of the cab Adjustable air outlets shall be strategically located on the rear plenum cover per the following:	YES	

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	Bidder Complies	
	Yes	No
Minimum of five (5) shall be directed towards crew cab area	YES	
A high efficiency particulate air (HEPA) filter shall be included for the system. Access to the filter cover shall be secured with four (4) screws.	YES	
The air conditioner refrigerant shall be R-134A and shall be installed by a certified technician.	YES	
<u>Climate Control</u>		
An automotive style controller shall be provided to control the heat and air conditioning system within the cab. The controller shall have three (3) functional knobs for fan speed, temperature, and air flow distribution (front to rear) control.	YES	
The system shall control the temperature of the cab and crew cab automatically by pushing the center of the fan speed control knob. Rotate the center temperature control knob to set the cab and crew cab temperature.	YES	
The AC system shall be manually activated by pushing the center of the temperature control knob. Pushing the center of the air flow distribution knob shall engage the AC for max defrost, setting the fan speeds to 100 percent and directing all air flow to the overhead forward position.	YES	
The system controller shall be located within panel position #12.	YES	
<u>Gravity Drain Tubes</u>		
Two (2) condensate drain tubes shall be provided for the air conditioning evaporator. The drip pan shall have two (2) drain tubes plumbed separately to allow for the condensate to exit the drip pan. No pumps shall be provided.	YES	
<u>SUN VISORS</u>		
Two (2) smoked Lexan™ sun visors shall be provided. The sun visors shall be located above the windshield with one (1) mounted on each side of the cab.	YES	
There shall be a polished stainless steel bracket provided to help secure each sun visor in the stowed position.	YES	
<u>GRAB HANDLES</u>		
A black rubber covered grab handle shall be mounted on the door post of the driver and officer's side cab door to assist in entering the cab. The grab handles shall be securely mounted to the post area between the door and windshield.	YES	
<u>ENGINE COMPARTMENT LIGHTS</u>		
There shall be one (1) Whelen, Model 3SC0CDCR, 12 volt DC, 3.00" white LED light(s) with Whelen, Model 3FLANGEC, chrome flange kit(s) installed under the cab to be used as engine compartment illumination.	YES	
These light(s) shall be activated automatically when the cab is raised.	YES	

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	Bidder Complies	
	Yes	No
<u>ACCESS TO ENGINE DIPSTICKS</u> For access to the engine oil and transmission fluid dipsticks, there shall be a door on the engine tunnel, inside the crew cab. The door shall be on the rear wall of the engine tunnel, on the vertical surface. The engine oil dipstick shall allow for checking only. The transmission dipstick shall allow for both checking and filling. The door shall have a rubber seal for thermal and acoustic insulation. One (1) flush latch shall be provided on the access door.	YES	
<u>SEATING CAPACITY</u> The seating capacity in the cab shall be four (4).	YES	
<u>DRIVER SEAT</u> A seat shall be provided in the cab for the driver. The seat design shall be a cam action type, with air suspension. For increased convenience, the seat shall include a manual control to adjust the horizontal position (6.00" travel). The manual horizontal control shall be a towel-bar style located below the forward part of the seat cushion. To provide flexibility for multiple driver configurations, the seat shall have an adjustable reclining back. The seat back shall be a high back style with side bolster pads for maximum support. For optimal comfort, the seat shall be provided with 17.00" deep foam cushions designed with EVC (elastomeric vibration control). The seat shall be furnished with a 3-point, shoulder type seat belt.	YES	
<u>OFFICER SEAT</u> A seat shall be provided in the cab for the passenger. The seat shall be a fixed type with no suspension. The seat back shall be a high back style with 9 degree fixed recline angle and side bolster pads for maximum support. For optimal comfort, the seat shall be provided with 17.00" deep foam cushions designed with EVC (elastomeric vibration control). The seat shall be furnished with a 3-point, shoulder type seat belt.	YES	
<u>RADIO COMPARTMENT</u> A radio compartment shall be provided under the officer's seat. A drop-down door with a chrome plated lift and turn latch shall be provided for access. The compartment shall be constructed of smooth aluminum and painted to match the cab interior.	YES	
<u>REAR FACING DRIVER SIDE OUTBOARD SEAT</u> There shall be one (1) rear facing seat provided at the driver side outboard position in the crew cab. The seat back shall be a high back style with 9 degree fixed recline angle. For optimal comfort, the seat shall be provided with 15.00" deep foam cushions designed with EVC (elastomeric vibration control).	YES	

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	Bidder Complies	
	Yes	No
The seat shall be furnished with a 3-point, shoulder type seat belt.	YES	
<u>REAR FACING PASSENGER SIDE OUTBOARD SEAT</u>		
There shall be one (1) rear facing seat provided at the passenger side outboard position in the crew cab. The seat back shall be a high back style with 9 degree fixed recline angle. For optimal comfort, the seat shall be provided with 15.00" deep foam cushions designed with EVC (elastomeric vibration control).	YES	
The seat shall be furnished with a 3-point, shoulder type seat belt.	YES	
<u>FORWARD FACING LEFT SIDE CABINET</u>		
A forward facing cabinet shall be provided in the crew cab located at the left side outboard position.	YES	
The cabinet shall be 22.00" wide x 30.00" high x 16.25" deep with one (1) Gortite rollup door with satin anodized finish, non-locking. The frame to frame opening of the cabinet shall be 19.50" wide x 24.75" high. The minimum clear door opening will be 16.75" wide x 18.87" high.	YES	
The cabinet shall include one (1) infinitely adjustable shelf with a 1.25" up-turned lippainted to match the cab interior.	YES	
The cabinet shall include no louvers.	YES	
The cabinet shall be constructed of smooth aluminum and painted to match the cab interior.		
<u>CABINET LIGHT</u>		
There shall be one (1) white LED strip light installed on the right side of the interior cabinet door opening and one (1) white LED strip light installed on the left side of the interior cabinet door opening. The lighting shall be controlled by an automatic door switch.	YES	
<u>FORWARD FACING RIGHT SIDE CABINET</u>		
A forward facing cabinet shall be provided in the crew cab located at the right side outboard position.	YES	
The cabinet shall be 22.00" wide x 30.00" high x 16.25" deep with one (1) Gortite rollup door with satin anodized finish, non-locking. The frame to frame opening of the cabinet shall be 19.50" wide x 24.75" high. The minimum clear door opening of the cabinet shall be 16.75" wide x 18.87" high.	YES	
The cabinet shall include one (1) infinitely adjustable shelf with a 1.25" up-turned lippainted to match the cab interior.	YES	
The cabinet shall include no louvers.	YES	
The cabinet shall be constructed of smooth aluminum, and painted to match the cab interior.	YES	

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	Bidder Complies	
	Yes	No
<u>Cabinet Light</u> There shall be one (1) white LED strip light installed on the right side of the interior cabinet door opening and one (1) white LED strip light installed on the left side of the interior cabinet door opening. The lighting shall be controlled by an automatic door switch.	YES	
<u>SEAT UPHOLSTERY</u> All seat upholstery shall be leather grain 36 oz dark silver gray vinyl resistant to oil, grease and mildew. The cab shall have four (4) seating positions.	YES	
<u>SEAT BELTS</u> All cab and tiller cab (if applicable) seating positions shall have red seat belts. To provide quick, easy use for occupants wearing bunker gear, the female buckle and seat belt webbing length shall meet or exceed the current edition of NFPA 1901 and CAN/ULC - S515 standards. The 3-point shoulder type seat belts shall include height adjustment. This adjustment shall optimize the belts effectiveness and comfort for the seated firefighter. The 3-point shoulder type seat belts shall be furnished with dual automatic retractors that shall provide ease of operation in the normal seating position. The 3-point shoulder type belts shall also include the ReadyReach D-loop assembly to the shoulder belt system. The ReadyReach feature adds an extender arm to the D-loop location placing the D-loop in a closer, easier to reach location. Any flip up seats shall include a 3-point shoulder type belts only. To ensure safe operation, the seats shall be equipped with seat belt sensors in the seat cushion and belt receptacle that shall activate an alarm indicating a seat is occupied but not buckled.	YES YES YES YES YES YES	
<u>HELMET STORAGE PROVIDED BY FIRE DEPARTMENT</u> NFPA 1901, 2016 edition, section 14.1.7.4.1 requires a location for helmet storage be provided. There is no helmet storage on the apparatus as manufactured. The fire department shall provide a location for storage of helmets.	YES YES	
<u>CAB DOME LIGHTS</u> There shall be four (4) dual LED dome lights with black bezels provided. Two (2) lights shall be mounted above the inside shoulder of the driver and officer and two (2) lights shall be installed and located, one (1) on each side of the crew cab. The color of the LED's shall be red and white. The white LED's shall be controlled by the door switches and the lens switch. The color LED's shall be controlled by the lens switch.	YES YES YES YES	

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	Bidder Complies	
	Yes	No
In order to ensure exceptional illumination, each white LED dome light shall provide a minimum of 10.1 foot-candles (fc) covering an entire 20.00" x 20.00" square seating position when mounted 40.00" above the seat.	YES	
HAND HELD LIGHT		
There shall be four (4) Streamlight E-Spot, FireBox Vehicle Mount Systems, Model 45865 LED hand held flashlights with an orange thermoplastic body provided.	YES	
The location shall be 2 on top of each EMS cabinet bulbs facing the rear of the truck..	YES	
The system shall include the hand light, a charger and the vehicle mount system.	YES	
CAB INSTRUMENTATION		
The cab instrument panel shall include gauges, an LCD display, telltale indicator lamps, control switches, alarms, and a diagnostic panel. The function of the instrument panel controls and switches shall be identified by a label adjacent to each item. Actuation of the headlight switch shall illuminate the labels in low light conditions. Telltale indicator lamps shall not be illuminated unless necessary. The cab instruments and controls shall be conveniently located within the forward cab section, forward of the driver. The gauge assembly and switch panels are designed to be removable for ease of service and low cost of ownership.	YES	
Gauges		
The gauge panel shall include the following ten (10) ivory faced gauges with chrome bezels to monitor vehicle performance:	YES	
• Voltmeter gauge (volts):		
o Low volts (11.8 VDC)	YES	
▪ Amber caution indicator on the information center with intermittent alarm	YES	
▪ Amber caution light on gauge assembly	YES	
o High volts (15.5 VDC)	YES	
▪ Amber caution indicator on the information center with intermittent alarm	YES	
▪ Amber caution light on gauge assembly	YES	
o Very low volts (11.3 VDC)	YES	
▪ Red warning indicator on the information center with a steady alarm	YES	
▪ Amber caution light on gauge assembly	YES	
o Very high volts (16.0 VDC)	YES	
▪ Red warning indicator on the information center with a steady alarm	YES	
▪ Amber caution light on gauge assembly	YES	
• Engine Tachometer (RPM)	YES	
• Speedometer MPH (Major Scale), KM/H (Minor Scale)	YES	
• Fuel level gauge (Empty - Full in fractions):	YES	
o Low fuel (1/8 full)	YES	
▪ Amber caution indicator on the information center with intermittent alarm	YES	
▪ Amber caution light on gauge assembly	YES	

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	Bidder Complies	
	Yes	No
- o Very low fuel (1/32 full) ▪ Red caution indicator on the information center with steady alarm ▪ Amber caution light on gauge assembly	YES	
• Engine Oil pressure Gauge (PSI):	YES	
o Low oil pressure to activate engine warning lights and alarms ▪ Red caution indicator on the information center with steady alarm ▪ Amber caution light on gauge assembly	YES	
• Front Air Pressure Gauges (PSI):	YES	
o Low air pressure to activate warning lights and alarm ▪ Red warning indicator on the information center with a steady alarm ▪ Amber caution light on gauge assembly	YES	
• Rear Air Pressure Gauges (PSI):	YES	
o Low air pressure to activate warning lights and alarm ▪ Red warning indicator on the information center with a steady alarm ▪ Amber caution light on gauge assembly	YES	
• Transmission Oil Temperature Gauge (Fahrenheit):	YES	
o High transmission oil temperature activates warning lights and alarm ▪ Amber caution indicator on the information center with intermittent alarm ▪ Amber caution light on gauge assembly	YES	
• Engine Coolant Temperature Gauge (Fahrenheit):	YES	
o High engine temperature activates an engine warning light and alarms ▪ Amber caution indicator on the information center with intermittent alarm ▪ Amber caution light on gauge assembly	YES	
• Diesel Exhaust Fluid Level Gauge (Empty - Full in fractions):	YES	
o Low fluid (1/8 full) ▪ Amber indicator light in gauge dial	YES	
All gauges shall perform prove out at initial power-up to ensure proper performance.	YES	
<u>Indicator Lamps</u>		
To promote safety, the following telltale indicator lamps shall be located on the instrument panel in clear view of the driver. The indicator lamps shall be "dead-front" design that is only visible when active. The colored indicator lights shall have descriptive text or symbols.	YES	
The following amber telltale lamps shall be present:		
• Low coolant	YES	
• Trac cntl (traction control) (where applicable)	YES	
• Check engine	YES	
• Check trans (check transmission)	YES	
• Aux brake overheat (Auxiliary brake overheat)	YES	
• Air rest (air restriction)	YES	
• Caution (triangle symbol)	YES	

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	Bidder Complies	
	Yes	No
• Water in fuel • DPF (engine diesel particulate filter regeneration) • Trailer ABS (where applicable) • Wait to start (where applicable) • HET (engine high exhaust temperature) (where applicable) • ABS (antilock brake system) • MIL (engine emissions system malfunction indicator lamp) (where applicable) • Side roll fault (where applicable) • Front air bag fault (where applicable)	YES YES YES YES YES YES YES YES YES	
The following red telltale lamps shall be present:		
• Warning (stop sign symbol) • Seat belt • Parking brake • Stop engine • Rack down	YES YES YES YES YES	
The following green telltale lamps shall be provided:		
• Left turn • Right turn • Battery on	YES YES YES	
The following blue telltale lamp shall be provided:		
• High beam	YES	
<u>Alarms</u>		
Audible steady tone warning alarm: A steady audible tone alarm shall be provided whenever a warning message is present.	YES	
Audible pulsing tone caution alarm: A pulsing audible tone alarm (chime/chirp) shall be provided whenever a caution message is present without a warning message being present.	YES	
Alarm silence: Any active audible alarm shall be able to be silenced by holding the ignition switch at the top position for three (3) to five (5) seconds. For improved safety, silenced audible alarms shall intermittently chirp every 30 seconds until the alarm condition no longer exists. The intermittent chirp shall act as a reminder to the operator that a caution or warning condition still exists. Any new warning or caution condition shall enable the steady or pulsing tones respectively.	YES	

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	Bidder Complies	
	Yes	No
<u>Indicator Lamp and Alarm Prove-Out</u> A system shall be provided which automatically tests telltale indicator lights and alarms located on the cab instrument panel. Telltale indicators and alarms shall perform prove-out at initial power-up to ensure proper performance.	YES	
<u>Control Switches</u> For ease of use, the following controls shall be provided immediately adjacent to the cab instrument panel within easy reach of the driver. All switches shall have backlit labels for low light applications.	YES	
Headlight/Parking light switch: A three (3)-position maintained rocker switch shall be provided. The first switch position shall deactivate all parking and headlights. The second switch position shall activate the parking lights. The third switch shall activate the headlights.	YES	
Panel back lighting intensity control switch: A three (3)-position momentary rocker switch shall be provided. Pressing the top half of the switch, "Panel Up" increases the panel back lighting intensity and pressing the bottom half of the switch, "Panel Down" decreases the panel back lighting intensity. Pressing the half or bottom half of the switch several times shall allow back lighting intensity to be gradually varied from minimum to maximum intensity level for ease of use.	YES	
Ignition switch: A three (3)-position maintained/momentary rocker switch shall be provided. The first switch position shall turn off and deactivate vehicle ignition. The second switch position shall activate vehicle ignition and shall perform prove-out on the telltale indicators and alarms for 3 to 5 seconds after the switch is turned on. A green indicator lamp is activated with vehicle ignition. The third momentary position shall temporarily silence all active cab alarms. An alarm "chirp" may continue as long as alarm condition exists. Switching ignition to off position shall terminate the alarm silence feature and reset function of cab alarm system.	YES	
Engine start switch: A two (2)-position momentary rocker switch shall be provided. The first switch position is the default switch position. The second switch position shall activate the vehicle's engine. The switch actuator is designed to prevent accidental activation.	YES	
Hazard switch shall be provided on the instrument panel or on the steering column.	YES	
Heater, defroster, and air conditioning control panel.	YES	
Windshield wiper control shall include low, high and intermittent modes.	YES	
Turn signal arm: A self-canceling turn signal with high beam headlight shall be provided.	YES	
Parking brake control: An air actuated push/pull park brake control valve shall be provided.	YES	
Chassis horn control: Activation of the chassis horn control shall be provided through the center of the steering wheel.	YES	

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	Bidder Complies	
	Yes	No
High idle engagement switch: A momentary rocker switch with integral indicator lamp shall be provided. The switch shall activate and deactivate the high idle function. The "OK To Engage High Idle" indicator lamp must be active for the high idle function to engage. A green indicator lamp integral to the high idle engagement switch shall indicate when the high idle function is engaged.	YES	
"OK To Engage High Idle" indicator lamp: A green indicator light shall be provided next to the high idle activation switch to indicate that the interlocks have been met to allow high idle engagement.	YES	
Emergency switching shall be controlled by multiple individual warning light switches for various groups or areas of emergency warning lights. An Emergency Master switch provided on the instrument panel that enables or disables all individual warning light switches is included.	YES	
An additional "Emergency Master" button shall be provided on the lower left hand corner of the gauge panel to allow convenient control of the "Emergency Master" system from inside the driver's door when standing on the ground.	YES	
<u>Custom Switch Panels</u> The design of cab instrumentation shall allow for emergency lighting and other switches to be placed within easy reach of the operator thus improving safety. There shall be positions for up to four (4) switch panels in the lower instrument console and up to six (6) switch panels in the overhead visor console. All switches have backlit labels for low light conditions.	YES	
<u>Diagnostic Panel</u> A diagnostic panel shall be accessible while standing on the ground and located inside the driver's side door left of the steering column. The diagnostic panel shall allow diagnostic tools such as computers to connect to various vehicle systems for improved troubleshooting providing a lower cost of ownership. Diagnostic switches shall allow ABS systems to provide blink codes should a problem exist.	YES	
The diagnostic panel shall include the following:		
• Engine diagnostic port	YES	
• Transmission diagnostic port	YES	
• ABS diagnostic port	YES	
• Roll sensor diagnostic port	YES	
• Command Zone USB diagnostic port	YES	
• ABS diagnostic switch (blink codes flashed on ABS telltale indicator)	YES	
• Diesel particulate filter regeneration switch (where applicable)	YES	
• Diesel particulate filter regeneration inhibit switch (where applicable)	YES	

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		Bidder Complies	
		Yes	No
<u>Cab LCD Display</u>			
A digital four (4)-row by 20-character dot matrix display shall be integral to the gauge panel. The display shall be capable of showing simple graphical images as well as text. The display shall be split into three (3) sections. Each section shall have a dedicated function. The upper left section shall display the outside ambient temperature.		YES	
The upper right section shall display the following, along with other configuration specific information:			
• Odometer		YES	
• Trip mileage		YES	
• PTO hours		YES	
• Fuel consumption		YES	
• Engine hours		YES	
The bottom section shall display INFO, CAUTION, and WARNING messages. Text messages shall automatically activate to describe the cause of an audible caution or warning alarm. The LCD shall be capable of displaying multiple text messages should more than one caution or warning condition exist.		YES	
<u>AIR RESTRICTION INDICATOR</u>			
A high air restriction warning indicator light LCD message with amber warning indicator and audible alarm shall be provided.		YES	
<u>"DO NOT MOVE APPARATUS" INDICATOR</u>			
A flashing red indicator light, located in the driving compartment, shall be illuminated automatically per the current NFPA requirements. The light shall be labeled "Do Not Move Apparatus If Light Is On."		YES	
The same circuit that activates the Do Not Move Apparatus indicator shall activate a pulsing alarm when the parking brake is released.		YES	
<u>DO NOT MOVE TRUCK MESSAGES</u>			
Messages shall be displayed on the Command Zone™, color display located within sight of the driver whenever the Do Not Move Truck light is active. The messages shall designate the item or items not in the stowed for vehicle travel position (parking brake disengaged).		YES	
The following messages shall be displayed (where applicable):			
• Do Not Move Truck		YES	
• DS Cab Door Open (Driver Side Cab Door Open)		YES	
• PS Cab Door Open (Passenger's Side Cab Door Open)		YES	
• DS Crew Cab Door Open (Driver Side Crew Cab Door Open)		YES	
• PS Crew Cab Door Open (Passenger's Side Crew Cab Door Open)		YES	
• DS Body Door Open (Driver Side Body Door Open)		YES	

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	Bidder Complies	
	Yes	No
• PS Body Door Open (Passenger's Side Body Door Open) • Rear Body Door Open • DS Ladder Rack Down (Driver Side Ladder Rack Down) • PS Ladder Rack Down (Passenger Side Ladder Rack Down) • Deck Gun Not Stowed • Lt Tower Not Stowed (Light Tower Not Stowed) • Fold Tank Not Stowed (Fold-A-Tank Not Stowed) • Aerial Not Stowed (Aerial Device Not Stowed) • Stabilizer Not Stowed • Steps Not Stowed • Handrail Not Stowed	YES YES N/A N/A YES YES N/A N/A N/A N/A N/A	
Any other device that is opened, extended, or deployed that creates a hazard or is likely to cause major damage to the apparatus if the apparatus is moved shall be displayed as a caution message after the parking brake is disengaged.	YES	
<u>SWITCH PANELS</u> The emergency light switch panel shall have a master switch for ease of use plus individual switches for selective control. Each switch panel shall contain eight (8) membrane-type switches each rated for one million (1,000,000) cycles. Panels containing less than eight (8) switch assignments shall include non-functioning black appliques. The built-in switch panels shall be located in the lower console or overhead console of the cab.	YES	
Additional switch panel(s) will be located in the overhead position(s) above the windshield or in designated locations on the lower instrument panel layout.	YES	
The switches shall be membrane-type and also act as an integral indicator light. For quick, visual indication the entire surface of the switch shall be illuminated white whenever back lighting is activated and illuminated green whenever the switch is active. An active illuminated switch shall flash when interlock requirements are not met or device is actively being load managed. For ease of use, a two (2)-ply, scratch resistant laser engraved Gravoply label indicating the use of each switch shall be placed in the center of the switch. The label shall allow light to pass through the letters for ease of use in low light conditions.	YES	
<u>WIPER CONTROL</u> Wiper control shall consist of a two (2)-speed windshield wiper control with intermittent feature and windshield washer controls.	YES	
<u>SPARE CIRCUIT</u> There shall be one (1) pair of wires, including a positive and a negative, installed on the apparatus. The above wires shall have the following features:	YES	

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	Bidder Complies	
	Yes	No
• The positive wire shall be connected directly to the battery power. • The negative wire shall be connected to ground. • Wires shall be protected to 15 amps at 12 volts DC. • Power and ground shall terminate officer's side of dash for customer installed MDT. • Termination shall be with heat shrinkable butt splicing. • Wires shall be sized to 125 percent of the protection.	YES	
This circuit(s) may be load managed when the parking brake is set.	YES	
<u>SPARE CIRCUIT</u>		
There shall be two (2) pair of wires, including a positive and a negative, installed on the apparatus.	YES	
The above wires shall have the following features:		
• The positive wire shall be connected directly to the battery power. • The negative wire shall be connected to ground. • Wires shall be protected to 2.0 amps at 12 volts DC. • Power and ground shall terminate one on the driver's side of engine tunnel and one on the officer's side of engine tunnel. • Termination shall be a Blue Sea Systems part number 1016 dual USB charger socket. • Wires shall be sized to 125 percent of the protection.	YES	
This circuit(s) may be load managed when the parking brake is applied.	YES	
<u>SPARE CIRCUIT</u>		
There shall be one (1) pair of wires, including a positive and a negative, installed on the apparatus.	YES	
The above wires shall have the following features:		
• The positive wire shall be connected directly to the battery power. • The negative wire shall be connected to ground. • Wires shall be protected to 20 amps at 12 volts DC. • Power and ground shall terminate on the raceway between the driver's seat and the rear facing seat on the driver's side. • Termination shall be to a Blue Sea System, Model 5025, 6 circuit with negative bus bar. The terminal block shall include a cover with circuit labels.	YES	
Wires shall be sized to 125% of the protection.	YES	
This circuit(s) may be load managed when the parking brake is set.	YES	

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	Bidder Complies	
	Yes	No
<u>SPARE CIRCUIT</u>		
There shall be one (1) pair of wires, including a positive and a negative, installed on the apparatus.	YES	
The above wires shall have the following features:		
The positive wire shall be connected directly to the battery switched power.	YES	
The negative wire shall be connected to ground.	YES	
Wires shall be protected to 15 amps at 12 volts DC.	YES	
Power and ground shall terminate officer's side of dash for customer supplied Knox Box.	YES	
Termination shall be with heat shrinkable butt splicing.	YES	
Wires shall be sized to 125 percent of the protection.	YES	
This circuit(s) may be load managed when the parking brake is set.	YES	
<u>CUSTOMER SUPPLIED RADIO WIRING</u>		
There shall be one (1) 12 volt combination wiring leads of which each shall include one (1) direct battery, one (1) ignition and one (1) negative for use with radio equipment.	YES	
Each lead shall be 18.00" long and be provided radio compartment under officer's seat. The leads shall be clearly marked in a coil and terminate with butt splices.	YES	
A breaker rated for 30 amps shall be provided for circuit protection of the direct battery lead with a minimum of 10 gauge wire.	YES	
A breaker rated for 7.5 amps shall be provided for circuit protection of the ignition lead.	YES	
The wires shall be colored coded as follows:		
red for direct battery	YES	
yellow for ignition	YES	
black for ground	YES	
<u>SPARE CIRCUIT</u>		
There shall be three (3) pair of wires, including a positive and a negative, installed on the apparatus.	YES	
The above wires shall have the following features:		
The positive wire shall be connected directly to the battery power	YES	
The negative wire shall be connected to ground	YES	
Wires shall be protected to 15 amps at 12 volts DC	YES	
Power and ground shall terminate officer side dash area and 1 in each EMS compartment rear wall up high	YES	
Termination shall be with 15 amp, power point plug with rubber cover	YES	

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	Bidder Complies	
	Yes	No
Wires shall be sized to 125 percent of the protection	YES	
The circuit(s) may be load managed when the parking brake is set.	YES	
<u>INFORMATION CENTER</u>		
An information center employing a 7.00" diagonal touch screen color LCD display shall be encased in an ABS plastic housing.	YES	
The information center shall have the following specifications:		
Operate in temperatures from -40 to 185 degrees Fahrenheit	YES	
An Optical Gel shall be placed between the LCD and protective lens	YES	
Five weather resistant user interface switches	YES	
Grey with black accents	YES	
Sunlight Readable	YES	
Linux operating system	YES	
Minimum of 1000nits rated display	YES	
Display can be changed to an available foreign language	YES	
A LCD display integral to the cab gauge panel shall be included as outlined in the cab instrumentation area.	YES	
Programmed to read US Customary	YES	
<u>General Screen Design</u>		
Where possible, background colors shall be used to provide "At a Glance" vehicle information. If information provided on a screen is within acceptable limits, a green background shall be used.	YES	
If a caution or warning situation arises the following shall occur:		
An amber background/text color shall indicate a caution condition	YES	
A red background/text color shall indicate a warning condition	YES	
The information center shall utilize an "Alert Center" to display text messages for audible alarm tones. The text messages shall be written to identify the item(s) causing the audible alarm to sound. If more than one (1) text message occurs, the messages shall cycle every second until the problem(s) have been resolved. The background color for the "Alert Center" shall change to indicate the severity of the "warning" message. If a warning and a caution condition occur simultaneously, the red background color shall be shown for all alert center messages.	YES	
A label for each button shall exist. The label shall indicate the function for each active button for each screen. Buttons that are not utilized on specific screens shall have a button label with no text or symbol.	YES	
<u>Home/Transit Screen</u>		
This screen shall display the following:		

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	Bidder Complies	
	Yes	No
Vehicle Mitigation (if equipped)	N/A	
Water Level (if the water level system includes compatible communications to the information center)	YES	
Foam Level (if the foam level system includes compatible communications to the information center)	YES	
Seat Belt Monitoring Screen	YES	
Tire Pressure Monitoring (if equipped)	YES	
Digital Speedometer	YES	
Active Alarms	YES	
<u>On Scene Screen</u>		
This screen shall display the following and shall be auto activated with pump engaged (if equipped):		
Battery Voltage	YES	
Fuel	YES	
Oil Pressure	YES	
Coolant Temperature	YES	
RPM	YES	
Water Level (if equipped)	YES	
Foam Level (if equipped)	YES	
Foam Concentration (if equipped)	N/A	
Water Flow Rate (if equipped)	N/A	
Water Used (if equipped)	N/A	
Active Alarms	YES	
<u>Virtual Buttons</u>		
There shall be four (4) virtual switch panel screens that match the overhead and lower lighting and HVAC switch panels.		
	YES	
<u>Page Screen</u>		
The page screen shall display the following and allow the user to progress into other screens for further functionality:		
Diagnostics	YES	
- Faults	YES	
- Listed by order of occurrence	YES	
- Allows to sort by system	YES	
- Interlock	YES	
- Throttle Interlocks	YES	
- Pump Interlocks (if equipped)	YES	
- Aerial Interlocks (if equipped)	YES	
- PTO Interlocks (if equipped)	N/A	
	YES	

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	Bidder Complies	
	Yes	No
o Load Manager	YES	
▪ A list of items to be load managed shall be provided. The list shall provide a description of the load.	YES	
▪ The lower the priority numbers the earlier the device shall be shed should a low voltage condition occur.	YES	
▪ The screen shall indicate if a load has been shed (disabled) or not shed.	YES	
▪ "At a glance" color features are utilized on this screen.	YES	
o Systems	YES	
▪ Command Zone	YES	
• Module type and ID number	YES	
• Module Version	YES	
• Input or output number	YES	
• Circuit number connected to that input or output	YES	
• Status of the input or output	YES	
• Power and Constant Current module diagnostic information	YES	
▪ Foam (if equipped)	YES	
▪ Pressure Controller (if equipped)	YES	
▪ Generator Frequency (if equipped)	N/A	
o Live Data	YES	
▪ General Truck Data	YES	
• Maintenance	YES	
o Engine oil and filter	YES	
o Transmission oil and filter	YES	
o Pump oil (if equipped)	YES	
o Foam (if equipped)	YES	
o Aerial (if equipped)	N/A	
• Setup	YES	
o Clock Setup	YES	
o Date & Time	YES	
▪ 12 or 24 hour format	YES	
▪ Set time and date	YES	
o Backlight	YES	
▪ Daytime	YES	
▪ Night time	YES	
▪ Sensitivity	YES	
o Unit Selection	YES	
o Home Screen	YES	
o Virtual Button Setup	YES	
o On Scene Screen Setup	YES	
o Configure Video Mode	YES	
▪ Set Video Contrast	YES	
▪ Set Video Color	YES	

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	Bidder Complies	
	Yes	No
▪ Set Video Tint	YES	
• Do Not Move - o The screen shall indicate the approximate location and type of item that is open or is not stowed for travel. The actual status of the following devices shall be indicated ▪ Driver Side Cab Door ▪ Passenger's Side Cab Door ▪ Driver Side Crew Cab Door ▪ Passenger's Side Crew Cab Door ▪ Driver Side Body Doors ▪ Passenger's Side Body Doors ▪ Rear Body Door(s) ▪ Ladder Rack (if applicable) ▪ Deck Gun (if applicable) ▪ Light Tower (if applicable) ▪ Hatch Door (if applicable) ▪ Stabilizers (if applicable) ▪ Steps (if applicable)	YES	
• Notifications - o View Active Alarms ▪ Shows a list of all active alarms including date and time of the occurrence is shown with each alarm ▪ Silence Alarms - All alarms are silenced	YES	
• Timer Screen	YES	
• HVAC (if equipped)	YES	
• Tire Information (if equipped)	YES	
• Ascendant Set Up Confirmation (if equipped)	N/A	
Button functions and button labels may change with each screen.	YES	
<u>COLLISION MITIGATION</u> There shall be a HAAS Alert®, Model HA5 Responder-to-Vehicle (R2V) collision avoidance system provided on the apparatus. The HA5 cellular transponder module shall be installed behind the cab windshield, as high and near to the center as practical, to allow clear visibility to the sky. The module dimensions are 5.40" long x 2.70" wide x 1.30" high, and operating temperature range is -40 degree C to 85 degree C.	YES	
The transponder shall be connected to the vehicle's emergency master circuit and battery direct power and ground.	YES	
While responding with emergency lights on, the HA5 transponder sends alert messages via cellular network to motorists in the vicinity of the responding truck that are equipped with the WAZE app.	YES	

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	Bidder Complies	
	Yes	No
While on scene with emergency lights on, the HA5 transponder sends road hazard alerts to motorists in the vicinity of the truck that are equipped with the WAZE app.	YES	
The HA5 Responder-to-Vehicle (R2V) collision avoidance system shall include the transponder and a 5 year cellular plan subscription.	YES	
Activation of the HAAS Alert system requires a representative of the customer to accept the End User License Agreement (EULA) via an on-line portal.	YES	
<u>VEHICLE DATA RECORDER</u>		
There shall be a vehicle data recorder (VDR) capable of reading and storing vehicle information provided.	YES	
The information stored on the VDR can be downloaded through a USB port mounted in a convenient location determined by cab model. A USB cable can be used to connect the VDR to a laptop to retrieve required information. The program to download the information from the VDR will be available to download on-line.	YES	
The vehicle data recorder shall be capable of recording the following data via hardwired and/or CAN inputs:	YES	
• Vehicle Speed - MPH	YES	
• Acceleration - MPH/sec	YES	
• Deceleration - MPH/sec	YES	
• Engine Speed - RPM	YES	
• Engine Throttle Position - % of Full Throttle	YES	
• ABS Event - On/Off	YES	
• Seat Occupied Status - Yes/No by Position	YES	
• Seat Belt Buckled Status - Yes/No by Position	YES	
• Master Optical Warning Device Switch - On/Off	YES	
• Time - 24 Hour Time	YES	
• Date - Year/Month/Day	YES	
<u>Seat Belt Monitoring System</u>		
A seat belt monitoring system (SBMS) shall be provided on the color display. The SBMS shall be capable of monitoring up to 10 seating positions indicating the status of each seat position per the following:	YES	
• Seat Occupied & Buckled = Green LED indicator illuminated	YES	
• Seat Occupied & Unbuckled = Red LED indicator with audible alarm	YES	
• No Occupant & Buckled = Red LED indicator with audible alarm	YES	
• No Occupant & Unbuckled = No indicator and no alarm	YES	
The seat belt monitoring screen shall become active on the color display when:		

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	Bidder Complies	
	Yes	No
- The home screen is active: - and there is any occupant seated but not buckled or any belt buckled with an occupant. - and there are no other Do Not Move Apparatus conditions present. As soon as all Do Not Move Apparatus conditions are cleared, the SBMS shall be activated. The SBMS shall include an audible alarm that shall warn that an unbuckled occupant condition exists and the parking brake is released, or the transmission is not in park.	YES YES YES	
<u>INTERCOM SYSTEM</u> A five (5) position David Clark intercom system with single radio interface capability at the driver and officer positions and remote radio Push To Talk buttons located within reach of the driver and officer shall be provided. The pump operator shall have a bulkhead fitting with weatherproof cap and radio interface belt station. Two (2) outboard crew cab positions shall have radio listen / intercom only, at both rear facing seats. The following components shall be supplied with this system: - One (1) U3805 Radio Cord Junction Module - Two (2) U3815 Radio Interface Headset Stations - Two (2) Remote PTT Kits - One (1) U3800 Intercom Unit (1 outboard Crew) - One (1) U3801 Headset Intercom Station (1 outboard Crew) - One (1) C3820 Power Cable - One (1) 18352G-16 Bulkhead connector Kit (Pump) - One (1) 12338P-01 Protector cap with lanyard (Pump) - One (1) C3019B Belt Station (Pump) - All necessary system cables and connectors	YES YES YES YES YES YES YES YES YES YES	
<u>RADIO / INTERCOM INTERFACE INCLUDED</u> All radio interfaced stations shall have universal radio interfaces installed. The interface wiring shall be routed within the cab to to radio compartment under officer's seat .	YES	
<u>UNDER THE HELMET HEADSET</u> There shall be four (4) under the helmet, headset(s) provided Driver, officer and two rearward facing seats. Each David Clark, Model H3442, headset shall feature: 5' Coiled cord - Noise cancelling electric microphone - Flexible microphone boom rotates 200 degrees for left or right dress - Microphone on/off button - Comfort Gel Earseals	YES YES YES YES YES	

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	Bidder Complies	
	Yes	No
23 dB noise reduction	YES	
<u>HEADSET HANGERS</u> There shall be four (4) headset hanger(s) installed driver's seat, officer's seat, driver's side outboard rear facing seat and passenger's side outboard rear facing seat. The hanger(s) shall meet NFPA 1901, Section 14.1.11, requirement for equipment mounting.	YES	
<u>BRACKET, JOHNNY RAY</u> A Johnny Ray, Model JR-207, radio swivel bracket rated for 14 lbs. shall be provided and installed centered on the lower dash towards the windshield.		
<u>KNOX-BOX®</u> There shall be one (1) Knox-Box(s) sent to the apparatus manufacturers preferred installer and installed at on the engine tunnel adjacent to the front angled part of the blister as per instrument drawing. Specific shipping requirements shall be followed. A "technician's key" shall be provided by the customer for each Knox Box. The box cannot be installed without a compatible technician's key.	YES	
<u>TWO WAY RADIO INSTALLATION</u> There shall be one (1) customer supplied two way radio(s) sent to the apparatus manufacturers preferred radio installer to be installed on the swivel mount per the shipping document. No antenna mount or whip shall be included in this option. Specific shipping requirements shall be followed.	YES	
	YES	
	YES	
<u>MOBILE MODEM INSTALLATION</u> There shall be one (1) customer supplied modem(s) sent to the apparatus manufacturers preferred installer to be installed on the vertical surface on the wall directly behind the officers seat. Specific shipping requirements shall be followed.	YES	
	YES	
<u>GPS / MULTIMODE ANTENNA INSTALLATION</u> There shall be one (1) customer supplied GPS / Multimode antenna(s) with stud mount for thick roof material to be installed on the roof. The antenna coax cable(s) shall be run per the packing list / instructions provided to the third party installer. Specific shipping requirements shall be followed. The GPS / Multimode antenna shall be sent to the apparatus manufacturers preferred installer prior to cab fabrication.	YES	
	YES	
<u>RADIO ANTENNA MOUNT</u> There shall be one (1) standard 1.125", 18 thread antenna-mounting base(s) installed best available location on the cab roof with high efficiency, low loss, coaxial cable(s) routed to the radio box. A weatherproof cap shall be installed on the mount.	YES	

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	Bidder Complies	
	Yes	No
<u>VEHICLE CAMERA SYSTEM</u>		
There shall be a color vehicle camera system provided with the following:		
One (1) camera located at the rear of the apparatus, pointing rearward, displayed automatically with the vehicle in reverse.	YES	
One (1) camera located on the right side of the apparatus, pointing rearward, displayed automatically with the right side turn signal.	YES	
One (1) camera located on the left side of the apparatus, pointing rearward, displayed automatically with the left side turn signal.	YES	
The camera images shall be displayed on the driver's vehicle information center display. Audio from the microphone on the rear camera shall be not provided.	YES	
The following components shall be included:		
One (1) SV-CW134639CAI Camera	YES	
Two (2) CS134404CI Side cameras	YES	
One (1) Amplified speaker (if applicable)	YES	
All necessary cables	YES	
<u>ELECTRICAL POWER CONTROL SYSTEM</u>		
The primary power distribution shall be located forward of the officer's seating position and be easily accessible while standing on the ground for simplified maintenance and troubleshooting. Additional electrical distribution centers shall be provided throughout the vehicle to house the vehicle's electrical power, circuit protection, and control components. The electrical distribution centers shall be located strategically throughout the vehicle to minimize wire length. For ease of maintenance, all electrical distribution centers shall be easily accessible. All distribution centers containing fuses, circuit breakers and/or relays shall be easily accessible.	YES	
Distribution centers located throughout the vehicle shall contain battery powered studs for supplying customer installed equipment thus providing a lower cost of ownership.	YES	
Circuit protection devices, which conform to SAE standards, shall be utilized to protect electrical circuits. All circuit protection devices shall be rated per NFPA requirements to prevent wire and component damage when subjected to extreme current overload. General protection circuit breakers shall be Type-I automatic reset (continuously resetting). When required, automotive type fuses shall be utilized to protect electronic equipment. Control relays and solenoid shall have a direct current rating of 125 percent of the maximum current for which the circuit is protected per NFPA.	YES	
<u>Solid-State Control System</u>		
A solid-state electronics based control system shall be utilized to achieve advanced operation and control of the vehicle components. A fully computerized vehicle network shall consist of	YES	

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	Bidder Complies	
	Yes	No
electronic modules located near their point of use to reduce harness lengths and improve reliability. The control system shall comply with SAE J1939-11 recommended practices.	YES	
The control system shall operate as a master-slave system whereas the main control module instructs all other system components. The system shall contain patented Mission Critical software that maintains critical vehicle operations in the unlikely event of a main controller error. The system shall utilize a Real Time Operating System (RTOS) fully compliant with OSEK/VDX™ specifications providing a lower cost of ownership.	YES	
For increased reliability and simplified use the control system modules shall include the following attributes:		
• Green LED indicator light for module power	YES	
• Red LED indicator light for network communication stability status	YES	
• Control system self test at activation and continually throughout vehicle operation	YES	
• No moving parts due to transistor logic	YES	
• Software logic control for NFPA mandated safety interlocks and indicators	YES	
• Integrated electrical system load management without additional components	YES	
• Integrated electrical load sequencing system without additional components	YES	
• Customized control software to the vehicle's configuration	YES	
• Factory and field re programmable to accommodate changes to the vehicle's operating parameters	YES	
• Complete operating and troubleshooting manuals	YES	
• USB connection to the main control module for advanced troubleshooting	YES	
To assure long life and operation in a broad range of environmental conditions, the solid-state control system modules shall meet the following specifications:		
• Module circuit board shall meet SAE J771 specifications	YES	
• Operating temperature from -40C to +70C	YES	
• Storage temperature from -40C to +70C	YES	
• Vibration to 50g	YES	
• IP67 rated enclosure (Totally protected against dust and also protected against the effect of temporary immersion between 15 centimeters and one (1) meter)	YES	
• Operating voltage from eight (8) volts to 16 volts DC	YES	
The main controller shall activate status indicators and audible alarms designed to provide warning of problems before they become critical.	YES	
<u>Circuit Protection and Control Diagram</u>		
Copies of all job-specific, computer network input and output (I/O) connections shall be provided with each chassis. The sheets shall indicate the function of each module connection point, circuit protection information (where applicable), wire numbers, wire colors and load management information.	YES	

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	Bidder Complies	
	Yes	No
<u>On-Board Electrical System Diagnostics</u> Advanced on-board diagnostic messages shall be provided to support rapid troubleshooting of the electrical power and control system. The diagnostic messages shall be displayed on the information center located at the driver's position. The on-board information center shall include the following diagnostic information: • Text description of active warning or caution alarms • Simplified warning indicators • Amber caution indication with intermittent alarm • Red warning indication with steady tone alarm <u>Prognostics</u> A software based vehicle tool shall be provided to predict remaining life of the vehicles critical fluid and events (no exception). The system shall send automatic indications to the Command Zone, color display and/or wireless enabled device to proactively alert of upcoming service intervals. Prognostics shall include: • Engine oil and filter • Transmission oil and filter • Pump oil (if equipped) • Foam oil (if equipped) • Aerial oil and filter (if equipped) <u>Advanced Diagnostics</u> An advanced, Windows-based, diagnostic software program shall be provided for this control system. The software shall provide troubleshooting tools to service technicians equipped with a Windows-based computer or wireless enabled device. The service and maintenance software shall be easy to understand and use and have the ability to view system input/output (I/O) information. <u>Tech Module with WiFi</u> An in cab module shall provide WiFi wireless interface and data logging capability. The WiFi interface shall comply with IEEE 802.11 b/g/n capabilities while communicating at 2.4 Gigahertz. The module shall provide an external antenna connection allowing a line of site communication range of up to 300 feet with a roof mounted antenna. The module shall transmit a password protected web page to a WiFi enabled device (i.e. most smart phones, tablets or laptops) allowing two levels of user interaction. The firefighter level shall allow vehicle monitoring of the vehicle and firefighting systems on the apparatus. The	YES YES YES YES YES YES YES YES YES YES YES N/A YES YES YES YES	

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	Bidder Complies	
	Yes	No
technician level shall allow diagnostic access to inputs and outputs installed on the Command Zone, control and information system.	YES	
The data logging capability shall record faults from the engine, transmission, ABS and Command Zone, control and information systems as they occur. No other data shall be recorded at the time the fault occurs. The data logger shall provide up to 2 Gigabytes of data storage.	YES	
A USB connection shall be provided on the Tech Module. It shall provide a means to download data logger information and update software in the device.	YES	
<u>Indicator Light and Alarm Prove-Out System</u>		
A system shall be provided which automatically tests basic indicator lights and alarms located on the cab instrument panel.	YES	
<u>Voltage Monitor System</u>		
A voltage monitoring system shall be provided to indicate the status of the battery system connected to the vehicle's electrical load. The system shall provide visual and audible warning when the system voltage is below or above optimum levels.	YES	
The alarm shall activate if the system falls below 11.8 volts DC for more than two (2) minutes.	YES	
<u>Power and Ground Studs</u>		
Spare circuits shall be provided in the primary distribution center for two-way radio equipment.	YES	
The spare circuits shall consist of the following:		
- One (1) 12-volt DC, 30 amp battery direct spare - One (1) 12-volt DC ground and un-fused switched battery stud located in or adjacent to the power distribution center	YES YES	
<u>Enhanced Software</u>		
The solid-state control system shall include the following software enhancements:	YES	
All perimeter lights and scene lights (where applicable) shall be deactivated when the parking brake is released.	YES	
Cab and crew cab dome lights shall remain on for 10 seconds for improved visibility after the doors close. The dome lights shall dim after 10 seconds or immediately if the vehicle is put into gear.	YES	
Cab and crew cab perimeter lights shall remain on for 10 seconds for improved visibility after the doors close. The dome lights shall dim after 10 seconds or immediately if the vehicle is put into gear.	YES	

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	Bidder Complies	
	Yes	No
<u>EMI/RFI Protection</u> To prevent erroneous signals from crosstalk contamination and interference, the electrical system shall meet, at a minimum, SAE J551/2, thus reducing undesired electromagnetic and radio frequency emissions. An advanced electrical system shall be used to ensure radiated and conducted electromagnetic interference (EMI) or radio frequency interference (RFI) emissions are suppressed at their source. The apparatus shall have the ability to operate in the electromagnetic environment typically found in fire ground operations to ensure clean operations. The electrical system shall meet, without exceptions, electromagnetic susceptibility conforming to SAE J1113/25 Region 1, Class C EMR for 10Khz-1GHz to 100 Volts/Meter. The vehicle OEM, upon request, shall provide EMC testing reports from testing conducted on an entire apparatus and shall certify that the vehicle meets SAE J551/2 and SAE J1113/25 Region 1, Class C EMR for 10Khz-1GHz to 100 Volts/Meter requirements. Component and partial (incomplete) vehicle testing is not adequate as overall vehicle design can impact test results and thus is not acceptable by itself. EMI/RFI susceptibility shall be controlled by applying appropriate circuit designs and shielding. The electrical system shall be designed for full compatibility with low-level control signals and high-powered two-way radio communication systems. Harness and cable routing shall be given careful attention to minimize the potential for conducting and radiated EMI/RFI susceptibility. <u>ELECTRICAL</u> All 12-volt electrical equipment installed by the apparatus manufacturer shall conform to modern automotive practices. All wiring shall be high temperature crosslink type. Wiring shall be run, in loom or conduit, where exposed and have grommets where wire passes through sheet metal. Automatic reset circuit breakers shall be provided which conform to SAE Standards. Wiring shall be color, function and number coded. Function and number codes shall be continuously imprinted on all wiring harness conductors at 2.00" intervals. Exterior exposed wire connectors shall be positive locking, and environmentally sealed to withstand elements such as temperature extremes, moisture and automotive fluids. Electrical wiring and equipment shall be installed utilizing the following guidelines: 1. All holes made in the roof shall be caulked with silicon, rope caulk is not acceptable. Large fender washers, liberally caulked, shall be used when fastening equipment to the underside of the cab roof. 2. Any electrical component that is installed in an exposed area shall be mounted in a manner that shall not allow moisture to accumulate in it. Exposed area shall be defined as any location outside of the cab or body. 3. Electrical components designed to be removed for maintenance shall not be fastened with nuts and bolts. Metal screws shall be used in mounting these devices. Also a coil of wire shall be provided behind the appliance to allow them to be pulled away from mounting area for inspection and service work.	YES	
	YES	
	YES	
	YES	
	YES	
	YES	
	YES	
	YES	
	YES	

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	Bidder Complies	
	Yes	No
4. Corrosion preventative compound shall be applied to all terminal plugs located outside of the cab or body. All non-waterproof connections shall require this compound in the plug to prevent corrosion and for easy separation (of the plug).	YES	
5. All lights that have their sockets in a weather exposed area shall have corrosion preventative compound added to the socket terminal area.	YES	
6. All electrical terminals in exposed areas shall have silicon (1890) applied completely over the metal portion of the terminal.	YES	
All lights and reflectors, required to comply with Federal Motor Vehicle Safety Standard #108, shall be furnished. Rear identification lights shall be recessed mounted for protection. Lights and wiring mounted in the rear bulkheads shall be protected from damage by installing a false bulkhead inside the rear compartments.	YES	
An operational test shall be conducted to ensure that any equipment that is permanently attached to the electrical system is properly connected and in working order.	YES	
The results of the tests shall be recorded and provided to the purchaser at time of delivery.	YES	
<u>BATTERY SYSTEM</u>		
There shall be four (4) 12 volt Exide®, Model 31S950X3W, batteries that include the following features shall be provided:	YES	
• 950 CCA, cold cranking amps	YES	
• 190 amp reserve capacity	YES	
• High cycle	YES	
• Group 31	YES	
• Rating of 3800 CCA at 0 degrees Fahrenheit	YES	
• 760 minutes of reserve capacity	YES	
• Threaded stainless steel studs	YES	
Each battery case shall be a black polypropylene material with a vertically ribbed container for increased vibration resistance. The cover shall be manifold vented with a central venting location to allow a 45 degree tilt capacity.	YES	
The inside of each battery shall consist of a "maintenance free" grid construction with poly wrapped separators and a flooded epoxy bottom anchoring for maximum vibration resistance.	YES	
<u>BATTERY SYSTEM</u>		
There shall be a single starting system with an ignition switch and starter button provided and located on the cab instrument panel.	YES	
<u>MASTER BATTERY SWITCH</u>		
There shall be a master battery switch provided within the cab within easy reach of the driver to activate the battery system.	YES	

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	Bidder Complies	
	Yes	No
An indicator light shall be provided on the instrument panel to notify the driver of the status of the battery system.	YES	
<u>BATTERY COMPARTMENTS</u>		
Batteries shall be placed on non-corrosive mats and be stored in well ventilated compartments located under the cab.	YES	
Heavy-duty battery cables shall be used to provide maximum power to the electrical system. Cables shall be color coded.	YES	
Battery terminal connections shall be coated with anti-corrosion compound. Battery solenoid terminal connections shall be encapsulated with semi-permanent rubberized compound.	YES	
<u>JUMPER STUDS</u>		
One (1) set of battery jumper studs with plastic color-coded covers shall be included on the battery compartments.	YES	
<u>BATTERY CHARGER/ AIR COMPRESSOR</u>		
There shall be a Kussmaul™ Pump Plus 1200, Model # 52-21-1100, single output battery charger/air compressor system shall be provided. A display bar graph indicating the state of charge shall be included.	YES	
The automatic charger shall maintain one (1) set of batteries with a maximum output current of 40 amps.	YES	
The 12-volt air compressor shall be installed to maintain the air system pressure when the vehicle is not in use.	YES	
There shall be an auto pump timer installed between the pressure switch and the pump that shall allow the pump to run for one hour than shut down for one hour.	YES	
The battery charger shall be wired to the AC shoreline inlet through an AC receptacle adjacent to this battery charger.	YES	
Battery charger/compressor shall be located behind the officer's seat, with a cover painted to match the cab interior.	YES	
The battery charger indicator shall be displayed through the window behind the driver seat. The display shall be mounted on a bracket so that it is visible from outside the apparatus in the lower corner of the window.	YES	
<u>AUTO EJECT FOR SHORELINE</u>		
There shall be one (1) Kussmaul™, Model 091-55-20-120, 20 amp 120 volt AC shoreline inlet(s) provided to operate the dedicated 120 volt AC circuits on the apparatus.	YES	
The shoreline inlet(s) shall include yellow weatherproof flip up cover(s).	YES	

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	Bidder Complies	
	Yes	No
There shall be a release solenoid wired to the vehicle's starter to eject the AC connector when the engine is starting.	YES	
The shoreline(s) shall be connected to Kussmaul Pump Plus & recepts in D1, P2 & EMS compartments.	YES	
There shall be a mating connector body supplied with the loose equipment.	YES	
There shall be a label installed near the inlet(s) that state the following:		
• Line Voltage	YES	
• Current Rating (amps)	YES	
• Phase	YES	
• Frequency	YES	
The shoreline receptacle shall be located on the driver side of cab, to the front of cab door.	YES	
<u>ALTERNATOR</u>		
A Delco Remy®, Model 55SI, alternator shall be provided. It shall have a rated output current of 430 amps, as measured by SAE method J56. The alternator shall feature an integral regulator and rectifier system that has been tested and qualified to an ambient temperature of 257 degrees Fahrenheit (125 degrees Celsius). The alternator shall be connected to the power and ground distribution system with heavy-duty cables sized to carry the full rated alternator output.	YES	
<u>ELECTRONIC LOAD MANAGER</u>		
An electronic load management (ELM) system shall be provided that monitors the vehicles 12-volt electrical system, automatically reducing the electrical load in the event of a low voltage condition, and automatically restoring the shed electrical loads when a low voltage condition expires. This ensures the integrity of the electrical system.	YES	
For improved reliability and ease of use, the load manager system shall be an integral part of the vehicle's solid state control system requiring no additional components to perform load management tasks. Load management systems which require additional components shall not be allowed.	YES	
The system shall include the following features:		
• System voltage monitoring.	YES	
• A shed load shall remain inactive for a minimum of five minutes to prevent the load from cycling on and off.	YES	
• Sixteen available electronic load shedding levels.	YES	
• Priority levels can be set for individual outputs.	YES	
• High Idle to activate before any electric loads are shed and deactivate with the service brake.	YES	
o If enabled:		

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	Bidder Complies	
	Yes	No
▪ "Load Man Hi-Idle On" shall display on the information center. ▪ Hi-Idle shall not activate until 30 seconds after engine start up. • Individual switch "on" indicator to flash when the particular load has been shed. • The information center indicates system voltage.	YES YES YES YES	
The information center, where applicable, includes a "Load Manager" screen indicating the following:	YES	
• Load managed items list, with priority levels and item condition. • Individual load managed item condition: - o ON = not shed - o SHED = shed	YES YES YES YES	
<u>SEQUENCER</u>		
A sequencer shall be provided that automatically activates and deactivates vehicle loads in a preset sequence thereby protecting the alternator from power surges. This sequencer operation shall allow a gradual increase or decrease in alternator output, rather than loading or dumping the entire 12 volt load to prolong the life of the alternator.	YES	
For improved reliability and ease of use, the load sequencing system shall be an integral part of the vehicle's solid state control system requiring no additional components to perform load sequencing tasks. Load sequencing systems which require additional components shall not be allowed.	YES	
Emergency light sequencing shall operate in conjunction with the emergency master light switch. When the emergency master switch is activated, the emergency lights shall be activated one by one at half-second intervals. Sequenced emergency light switch indicators shall flash while waiting for activation.	YES	
When the emergency master switch is deactivated, the sequencer shall deactivate the warning light loads in the reverse order.	YES	
Sequencing of the following items shall also occur, in conjunction with the ignition switch, at half-second intervals:	YES	
• Cab Heater and Air Conditioning • Crew Cab Heater (if applicable) • Crew Cab Air Conditioning (if applicable) • Exhaust Fans (if applicable) • Third Evaporator (if applicable)	YES YES YES YES YES	
<u>HEADLIGHTS</u>		
There shall be four (4) JW Speaker®, Model 8800, 4" x 6" rectangular LED lights with heated lens mounted in the front quad style, chrome housing on each side of the cab grille:	YES	

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	Bidder Complies	
	Yes	No
- the outside light on each side shall contain a part number 055***1 low beam module - the inside light on each side shall contain a part number 055***1 high beam module - the headlights to include chrome bezels	YES	
The low beam lights shall be activated when the headlight switch is on.	YES	
The high beam and low beam lights shall be activated when the headlight switch and the high beam switch is activated.	YES	
<u>DIRECTIONAL LIGHTS</u>		
There shall be two (2) Whelen 600 series, LED combination directional/marker lights provided. The lights shall be located on the outside cab corners, next to the headlights.	YES	
The color of the lenses shall be the same color as the LED's.	YES	
<u>INTERMEDIATE LIGHT</u>		
There shall be two (2) Weldon, Model 9186-8580-29, amber LED turn signal marker lights furnished, one (1) each side, in the rear fender panel. The light shall double as a turn signal and marker light.	YES	
<u>CAB CLEARANCE/MARKER/ID LIGHTS</u>		
There shall be seven (7) amber LED lights provided per the following:	YES	
Three (3) amber LED identification lights shall be installed in the center of the cab above the windshield.	YES	
Two (2) amber LED clearance lights shall be installed, one (1) on each outboard side of the cab above the windshield as close to the outside of the apparatus as practical.	YES	
Two (2) amber LED clearance lights shall be installed, one (1) on each side of the cab as high and far forward as practical.	YES	
<u>FRONT CAB SIDE DIRECTIONAL LIGHTS</u>		
There shall be two (2) Truck-Lite®, Model 19036Y, amber LED lights installed to the outside of the chrome wrap around bezel, one (1) on each side of the cab.	YES	
The lights shall activate as additional directional lights with the corresponding directional circuit.	YES	
<u>REAR CLEARANCE/MARKER/ID LIGHTING</u>		
There shall be three (3) Truck-Lite®, Model 26250R, LED lights used as identification lights located at the rear of the apparatus per the following:	YES	
As close as practical to the vertical centerline	YES	
Centers spaced not less than 6.00" or more than 12.00" apart	YES	
Red in color	YES	
All at the same height	YES	

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	Bidder Complies	
	Yes	No
There shall be two (2) Truck-Lite, Model 26250R, LED lights installed at the rear of the apparatus used as clearance lights located at the rear of the apparatus per the following:	YES	
To indicate the overall width of the vehicle	YES	
One (1) each side of the vertical centerline	YES	
As near the top as practical	YES	
Red in color	YES	
To be visible from the rear	YES	
All at the same height	YES	
There shall be two (2) Truck-Lite, Model 26250R, LED lights installed on the side of the apparatus as marker lights as close to the rear as practical per the following:	YES	
To indicate the overall length of the vehicle	YES	
One (1) each side of the vertical centerline	YES	
As near the top as practical	YES	
Red in color	YES	
To be visible from the side	YES	
All at the same height	YES	
There shall be two (2) red reflectors located on the rear of the truck facing to the rear. One (1) each side, as far to the outside as practical, at a minimum of 15.00", but no more than 60.00", above the ground.	YES	
There shall be two (2) red reflectors located on the side of the truck facing to the side. One (1) each side, as far to the rear as practical, at a minimum of 15.00", but no more than 60.00", above the ground.	YES	
Per FMVSS 108 and CMVSS 108 requirements.	YES	
<u>REAR FMVSS LIGHTING</u>		
There shall be two (2) wrap around tri-cluster LED modules provided on the face of the rear body compartments.	YES	
Each tri-cluster shall include the following:		
One (1) LED stop/tail light	YES	
One (1) LED directional light	YES	
One (1) LED backup light	YES	
<u>LICENSE PLATE BRACKET</u>		
There shall be one (1) license plate bracket located below the tailboard on a removable bolt-on bracket located on driver's side.	YES	

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	Bidder Complies	
	Yes	No
A white LED light shall illuminate the license plate. A stainless steel light shield shall be provided over the light that shall direct illumination downward, preventing white light to the rear.	YES	
<u>BACK-UP ALARM</u> A PRECO, Model 1040, solid-state electronic audible back-up alarm that actuates when the truck is shifted into reverse shall be provided. The device shall sound at 60 pulses per minute and automatically adjust its volume to maintain a minimum ten (10) dBA above surrounding environmental noise levels.	YES	
<u>CAB PERIMETER SCENE LIGHTS</u> There shall be four (4) TecNiq, Model T10-LC00-1, 15.00" lights with white LEDs and 45 degree stainless steel brackets provided per the following: - one (1) under the driver's side cab access step - one (1) under the passenger's side cab access step - one (1) under the passenger's side crew cab access step - one (1) under the driver's side crew cab access step The lights shall be activated when the battery switch is on, when the respective door is open and by the same control selected for the body perimeter lights.	YES YES YES YES YES	
<u>PUMP HOUSE PERIMETER LIGHTS</u> There shall be two (2) TecNiq, Model T10-LC00-1, 15.00" white 12 volt DC LED weatherproof strip lights provided under the pump panel running boards, one (1) each side. The lights shall be controlled by the same means as the body perimeter lights.	YES YES	
<u>BODY PERIMETER SCENE LIGHTS</u> There shall be two (2) TecNiq, Model T10-LC00-1, 15.00" 12 volt DC LED strip lights provided at the rear step area of the body, one (1) each side shining to the rear. The perimeter scene lights shall be activated when the parking brake is applied.	YES YES	
<u>STEP LIGHTS</u> There shall be four (4) white LED step lights provided at the rear to illuminate the tailboard/step area. In order to ensure exceptional illumination, each light shall provide a minimum of 25 foot-candles (fc) covering an entire 15" x 15" square placed ten (10) inches below the light and a minimum of 1.5 fc covering an entire 30" x 30" square at the same ten (10) inch distance below the light. These step lights shall be actuated with the perimeter scene lights. All other steps on the apparatus shall be illuminated per the current edition of NFPA 1901.	YES YES YES YES	

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	Bidder Complies	
	Yes	No
<u>12 VOLT LIGHTING</u>		
There shall be a HiViz Model FT-B-X-72-*-, 2.56" high x 72.00" long x 3.31" deep 21,251.57 effective lumens 12 volt DC LED light provided on the front cab roof as far forward as practical. The light shall include white scene LEDs. The white LEDs shall be configured with a combination of flood and spot optics.	YES	
The painted parts of the light housing and brackets to be white.	YES	
The scene LEDs shall be activated by a switch at the driver's side switch panel.	YES	
The white LEDs may be load managed when the parking brake is applied.	YES	
<u>12 VOLT DC SCENE LIGHTS</u>		
There shall be one (1) Whelen® Model P*H1*, 8,875 lumens 12 volt DC powered lights with white LEDs and a combination of flood and spot optics installed on the apparatus located, passenger's side of cab behind crew cab door up high.	YES	
The light(s) to be installed in a 15 degree vertical recessed bracket.	YES	
The painted parts of this light assembly to be white.	YES	
The lights shall be activated by a switch at the driver's side switch panel.	YES	
The light(s) may be load managed when the parking brake is applied.	YES	
<u>12 VOLT DC SCENE LIGHTS</u>		
There shall be one (1) Whelen® Model P*H1*, 8,875 lumens 12 volt DC powered lights with white LEDs and a combination of flood and spot optics installed on the apparatus located, driver's side of cab behind crew cab door up high.	YES	
The light(s) to be installed in a 15 degree vertical recessed bracket.	YES	
The painted parts of this light assembly to be white.	YES	
The lights shall be activated by a switch at the driver's side switch panel.	YES	
The light(s) may be load managed when the parking brake is applied.	YES	
<u>12 VOLT LIGHTING</u>		
There shall be one (1) Whelen® Model P*H1*, 8,875 lumens 12 volt DC LED light(s) with a combination of flood and spot optics installed on the apparatus located, driver's side of hatch compartment towards the rear.	YES	
The painted parts of this light assembly to be white.	YES	
The light(s) to be installed in a 15 degree vertical recessed bracket.	YES	

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	Bidder Complies	
	Yes	No
The lights shall be controlled by the same control that has been selected for the driver's side scene light(s).	YES	
The light(s) may be load managed when the parking brake is applied.	YES	
<u>12 VOLT LIGHTING</u>		
There shall be one (1) Whelen® Model P*H1*, 8,875 lumens 12 volt DC LED light(s) with a combination of flood and spot optics installed on the apparatus located, passenger's side of hatch compartment towards the rear.	YES	
The painted parts of this light assembly to be white.	YES	
The light(s) to be installed in a 15 degree vertical recessed bracket.	YES	
The lights shall be controlled by the same control that has been selected for the passenger's side scene light(s).	YES	
The light(s) may be load managed when the parking brake is applied.	YES	
<u>12 VOLT LIGHTING</u>		
There shall be two (2) Whelen® Model P*H1*, 8,875 lumens 12 volt DC LED light(s) with a combination of flood and spot optics installed on the apparatus located, rear of the body up high on each side.	YES	
The painted parts of this light assembly to be white.	YES	
The light(s) to be installed in a 15 degree vertical recessed bracket.	YES	
The lights shall be controlled by a switch at the driver's side switch panel.	YES	
The light(s) may be load managed when the parking brake is applied.	YES	
<u>HOSE BED LIGHTS</u>		
There shall be white 12 volt DC LED light strips provided to light the hose bed area. Hose bed lights shall meet the photometric levels listed in NFPA 1901 for Hose Bed lighting requirements.	YES	
Light strip(s) shall be installed along the upper edge of the left side of the hose bed cover.	YES	
Light strip(s) shall be installed along the upper edge of the right side of the hose bed cover.	YES	
The lights shall be activated when the hosebed cover is raised.	YES	
<u>WALKING SURFACE LIGHT</u>		
There shall be Model FRP, 4" round black 12 volt DC LED floodlight(s) with bolt mount provided to illuminate the entire designated walking surface on top of the body.	YES	

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	Bidder Complies	
	Yes	No
The light(s) shall be activated when the body step lights are on.	YES	
<u>WATER TANK</u>		
Booster tank shall have a capacity of 500 gallons and be constructed of UV stabilized ultra high impact polypropylene plastic by a manufacturer with a minimum of 20 years experience building tanks, is ISO 9001:2000 certified in all its manufacturing facilities, and has over 50,000 tanks in service.	YES	
The booster tank shall be a form-fitting design that serves to keep the tank height as low as possible. The tank shall be no wider than 39" at the base to allow for greater compartment depth and no wider than 53" at the top.	YES	
Tank joints and seams shall be nitrogen welded inside and out.	YES	
Tank shall be baffled in accordance with NFPA Bulletin 1901 requirements.	YES	
Baffles shall have vent openings at both the top and bottom to permit movement of air and water between compartments.	YES	
Longitudinal partitions shall be constructed of .38" polypropylene plastic and shall extend from the bottom of the tank through the top cover to allow for positive welding.	YES	
Transverse partitions shall extend from 4.00" off the bottom of the tank to the underside of the top cover.	YES	
All partitions shall interlock and shall be welded to the tank bottom and sides.	YES	
Tank top shall be constructed of .50" polypropylene. It shall be recessed .38" and shall be welded to the tank sides and the longitudinal partitions.	YES	
Tank top shall be sufficiently supported to keep it rigid during fast filling conditions.	YES	
Construction shall include 2.00" polypropylene dowels spaced no more than 30.00" apart and welded to the transverse partitions. Two (2) of the dowels shall be drilled and tapped (.50" diameter, 13.00" deep) to accommodate lifting eyes.	YES	
A sump that will be sized dependent on the tank to pump plumbing shall be provided at the bottom of the water tank.	YES	
Sump shall include a drain plug and the tank outlet.	YES	
Tank shall be installed in a fabricated cradle assembly constructed of structural steel.	YES	
Sufficient crossmembers shall be provided to properly support bottom of tank. Crossmembers shall be constructed of steel bar channel or rectangular tubing.	YES	

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	Bidder Complies	
	Yes	No
Tank shall "float" in cradle to avoid torsional stress caused by chassis frame flexing. Rubber cushions, .50" thick x 3.00" wide, shall be placed on all horizontal surfaces that the tank rests on.	YES	
Stops or other provision shall be provided to prevent an empty tank from bouncing excessively while moving vehicle.	YES	
Mounting system to be approved by the tank manufacturer.	YES	
Fill tower shall be constructed of .50" polypropylene and shall be a minimum of 8.00" wide x 14.00" long.	YES	
Fill tower shall be furnished with a .25" thick polypropylene screen and a hinged cover.	YES	
An overflow pipe, constructed of 4.00" schedule 40 polypropylene, shall be installed approximately halfway down the fill tower and extend through the water tank and exit to the rear of the rear axle.	YES	
<u>BODY HEIGHT</u>		
The height of the body shall be 92.00" from the bottom of the body to the top of the body.	YES	
<u>HOSE BED</u>		
The hose bed shall be fabricated of .125"-5052 aluminum with a nominal 38,000 psi tensile strength.	YES	
Flooring of the hose bed shall be removable aluminum grating with the top surface corrugated to aid in hose aeration. The grating slats shall be a minimum of 0.50" x 4.50" with spacing between slats for hose ventilation.	YES	
Hose bed shall accommodate 1,000' of 5" LDH & 500' of 2.5" DJ.	YES	
<u>HOSE BED DIVIDER</u>		
One (1) adjustable hosebed divider shall be furnished for separating hose.	YES	
Each divider shall be constructed of a .125" brushed aluminum sheet fitted and fastened into a slotted, 1.50" diameter radiused extrusion along the top, bottom, and rear edge.	YES	
Divider shall be fully adjustable by sliding in tracks, located at the front and rear of the hose bed.	YES	
Divider shall be held in place by tightening bolts, at each end.		
Acorn nuts shall be installed on all bolts in the hose bed which have exposed threads.	YES	
<u>HOSE BED COVER</u>		
A two (2) section hose bed cover, constructed of .125" bright aluminum treadplate shall be furnished. The cover shall be hinged with full length stainless steel piano hinge. The sides shall	YES	

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	Bidder Complies	
	Yes	No
be slanted down. A stationary bridgework support assembly shall be provided at the rear to support the cover.	YES	
The cover shall be reinforced so that it can support the weight of a man walking on the cover.	YES	
The cover is designed with the left cover opening first.		
If access to the water tank fill tower is blocked by the hose bed cover, then a hinged door shall be provided in it so that the tank may be filled without raising cover doors.	YES	
Chrome grab handles and four (4) gas filled cylinders shall be provided to assist in opening and closing the cover. A handrail is to be provided at the rear, in the center of the support, to assist in opening the cover.	YES	
The hose bed cover shall be connected to the Do Not Move Truck indicator. The light shall be activated if the cover is not in the stowed position and the parking brake is released.	YES	
A red vinyl flap shall be installed on the rear of the bright aluminum treadplate hose bed cover with quarter turn fasteners. A chain weight and a spring clip-and-hook hold downs shall be provided at the bottom of the cover.	YES	
<u>RUNNING BOARDS</u>		
A running board shall be provided on each side of the front body to allow access to the backboard/crosslay storage area. The running boards shall be designed with a grip pattern punched into .125" bright aluminum treadplate material providing support, slip resistance, and drainage.	YES	
The runningboard shall have a flip out section design that allows easier access to the full width equipment area above. The flip out section shall be tied to the "do not move truck indicator" with a sensor when it is flipped out. There shall be a latch provided that secures the flip out section when not in use.	YES	
<u>TAILBOARD</u>		
The tailboard shall be constructed of .125" bright aluminum treadplate and spaced .50" from the body, as well as supported by a structural steel assembly.	YES	
The tailboard area shall be 12.00" deep and full width of the body.	YES	
The exterior side shall be flanged down and in for increased rigidity of tailboard structure.	YES	
<u>REAR WALL, BODY MATERIAL</u>		
The rear wall shall be smooth and the same material as the body.	YES	
The rear wall body material shall be painted. Unpainted aluminum overlays shall be provided to allow for chevron application and to provide continuously smooth rear wall panels.	YES	
The outboard edges of the rear wall shall be trimmed in polished stainless steel.	YES	

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	Bidder Complies	
	Yes	No
<u>TOW BAR</u>		
A tow bar shall be installed under the tailboard at center of truck.	YES	
Tow bar shall be fabricated of 1.00" CRS bar rolled into a 3.00" radius.	YES	
Tow bar assembly shall be constructed of .38" structural angle. When force is applied to the bar, it shall be transmitted to the frame rail.	YES	
Tow bar assembly shall be designed and positioned to allow up to a 30-degree upward angled pull of 17,000 lb, or a 20,000 lb straight horizontal pull in line with the centerline of the vehicle.	YES	
Tow bar design shall have been fully tested and evaluated using strain gauge testing and finite element analysis techniques.	YES	
<u>COMPARTMENTATION</u>		
The body panel assembly shall be constructed in a fixture and consist of formed sheet metal for the front and rear bulkheads, door frames, floors, ceilings, and back walls. These parts shall be welded together to ensure greatest longevity with no visible welds in compartment interior.	YES	
The bodies shall be assembled and welded from engineered prints that call out the size, location, and type of weld required.	YES	
In structural areas the sheet metal components shall have flanges for welding. No butt joints shall be allowed. Gussets and support posts shall be provided for additional strength where needed.	YES	
The fender panel shall be an integral part of the complete welded body assembly. All light and compartment holes are pre punched prior to construction to provide accuracy and rounded corners to prevent stress risers in the material.	YES	
Circular fender liners shall be provided. For prevention of paint chips and ease of suspension maintenance the fender liners shall be removable for suspension maintenance (no exception).	YES	
Side compartment flooring shall be of the sweep out design with the floor minimum of 1.00" higher than the compartment door lip.	YES	
Drip protection shall be provided above the doors by means of aluminum extrusion, or formed bright aluminum treadplate.	YES	
All screws and bolts, which are not Grade 8, shall be stainless steel and where they protrude into a compartment shall have acorn nuts on the ends to prevent injury.	YES	
<u>UNDERBODY SUPPORT SYSTEM</u>		
Due to the severe loading requirements of this pumper a method of body and compartment support suitable for the intended load shall be provided.	YES	

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	Bidder Complies	
	Yes	No
The backbone of the body support system shall begin with the chassis frame rails which is the strongest component of the chassis and is designed for sustaining maximum loads. The support system shall include lateral frame rail extensions that are bolted to the chassis frame rails with 0.625" diameter Grade 8 bolts.	YES	
The vertical and horizontal members of the frame rail extensions are to be reinforced with welded gussets and extend to the outside edge of the body. The lateral frame extensions shall be electro-coated for superior corrosion resistance.	YES	
The floating substructure shall be separated from the lateral frame extensions with neoprene elastomer isolators. These isolators shall reduce the natural flex stress of the chassis from being transmitted to the body, and absorb road shock and vibration.	YES	
The isolators shall have a broad load range, proven viability in vehicular applications, be of a fail safe design and allow for all necessary movement in three (3) transitional and rotational modes.	YES	
The neoprene isolators shall be installed in a modified V three (3)-point mounting pattern to reduce the natural flex of the chassis being transmitted to the body. Two (2) 3.50" diameter isolators are provided at the front of the body near the centerline of the vehicle above the chassis frame. A minimum of eight (8) - 2.55" diameter isolators shall be provided, two (2) under each front compartment and two (2) under each rear side compartment. A minimum of four (4) 3.50" diameter isolators shall be provided under the rear compartment.	YES	
A design with body compartments simply hanging/sitting on the chassis in an unsupported (cantilever) fashion shall not be acceptable.	YES	
<u>AGGRESSIVE WALKING SURFACE</u> All exterior surfaces designated as stepping, standing, and walking areas shall comply with the required average slip resistance of the current NFPA standards. Documentation of the material meeting the standard shall be provided at time of delivery.	YES	
<u>LOUVERS</u> All body compartments shall have a minimum of one (1) set of automotive style, dust resistant louvers pressed into a wall. The louvers shall incorporate a one (1)-way rubber valve that provides airflow out of the compartment and prevents water and dirt from gaining access to the compartment. Compartments over the wheel shall not have louvers.	YES	
<u>TESTING OF BODY DESIGN</u> Body structural analysis shall be fully tested. Proven engineering and test techniques such as finite element analysis and strain gauging have been performed with special attention given to fatigue life and structural integrity of the body and substructure.	YES	
The body shall be tested while loaded to its greatest in-service weight.	YES	
The criteria used during the testing procedure shall include:		

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	Bidder Complies	
	Yes	No
• Raising opposite corners of the vehicle tires 9.00" to simulate the twisting a truck may experience when driving over a curb. • Making a 90 degree turn, while driving at 20 mph to simulate aggressive driving conditions. • Driving the vehicle on at 35 mph on a washboard road. • Driving the vehicle at 55 mph on a smooth road. • Accelerating the vehicle fully, until reaching the approximate speed of 45 mph on rough pavement.	YES	
Evidence of the actual testing techniques shall be made available upon request.	YES	
FEA shall have been performed on all substructure components.	YES	
<u>LEFT SIDE COMPARTMENTATION</u>		
The left side compartmentation shall consist of three rollup door compartments.	YES	
A full height, rollup door compartment ahead of the rear wheels shall be provided. The pump operator's panel shall be located in this compartment. The interior dimensions of the remaining space in this compartment shall be 25.25" wide x 53.63" high x 26.00" deep. The clear door opening shall be a minimum of 59.25" wide x 53.63" high.	YES	
A rollup door compartment over the rear wheels shall be provided. The interior dimensions of this compartment shall be 60.00" wide x 22.88" high x 26.00" deep. The clear door opening shall be a minimum of 57.25" wide x 22.88" high.	YES	
A full height, rollup door compartment behind the rear wheels shall be provided. The interior dimensions of this compartment shall be 51.75" wide x 54.63" high x 26.00" deep. The clear door opening shall be a minimum of 49.25" wide x 54.63" high.	YES	
The roll up door spool shall be installed in a recess above the compartment ceiling. All compartments shall include a drip pan below the roll of the door. The drip pan shall be installed level with the compartment ceiling. The interior height of the compartments shall be measured from the compartment floor to the ceiling. The depth of the compartments shall be measured from the back wall to the inside of the door frame.	YES	
Closing of the doors shall not require releasing, unlocking, or unlatching any mechanism and shall easily be accomplished with one hand.	YES	
<u>RIGHT SIDE COMPARTMENTATION</u>		
A full height, jump off compartment with a roll-up door ahead of the rear wheels shall be provided, as convenient large storage compartment for often used items for the crew. The interior dimensions of this compartment shall be 62.00" wide x 54.50" high x 25.88" deep. The area behind the roll up door spool shall be notched for exterior storage or larger capacity water tank tee. The depth of the compartment shall be calculated with the compartment door closed. The compartment interior shall be fully open from the compartment ceiling to the compartment	YES	

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	Bidder Complies	
	Yes	No
floor and designed so that no permanent dividers are required between the upper and lower sections. The clear door opening of this compartment shall be 59.00" wide x 54.50 high.	YES	
Closing of the door shall not require releasing, unlocking, or unlatching any mechanism and shall easily be accomplished with one hand.	YES	
A roll-up door compartment over the rear wheels shall be provided. The interior dimensions of this compartment shall be 60.00" wide x 23.00" high x 25.88" deep. The area behind the roll up door spool shall be notched for exterior storage or larger capacity water tank tee. The depth of the compartment shall be calculated with the compartment door closed. The clear door opening of this compartment shall be 57.00" wide x 23.00" high.	YES	
Closing of the door shall not require releasing, unlocking, or unlatching any mechanism and shall easily be accomplished with one hand.	YES	
A full height, roll-up door compartment behind the rear wheels shall be provided. The interior dimensions of this compartment shall be 52.00" wide x 54.50" high x 25.88" deep. The area behind the roll up door spool shall be notched for exterior storage or larger capacity water tank tee. The depth of the compartment shall be calculated with the compartment door closed. The compartment interior shall be fully open from the compartment ceiling to the compartment floor and designed so that no permanent dividers are required between the upper and lower sections. The clear door opening of this compartment shall be 49.00" wide x 54.50" high.	YES	
Closing of the door shall not require releasing, unlocking, or unlatching any mechanism and shall easily be accomplished with one hand.	YES	
All compartments shall include a drip pan below the roll of the door.	YES	
<u>SIDE COMPARTMENT ROLLUP DOOR(S)</u>		
There shall be six (6) compartment doors installed on the side compartments. The doors shall be double faced aluminum construction, painted one (1) color to match the lower portion of the body and manufactured by Gortite®.	YES	
Lath sections shall be an interlocking rib design and shall be individually replaceable without complete disassembly of door.	YES	
Between each slat at the pivoting joint shall be a PVC inner seal to prevent metal to metal contact and prevent dirt or moisture from entering the compartments. Seals shall allow door to operate in extreme temperatures ranging from 180 to -40 degrees Fahrenheit. Side, top and bottom seals shall be provided to resist ingress of dirt and weather and be made of Santoprene.	YES	
All hinges, barrel clips and end pieces shall be nylon 66. All nylon components shall withstand temperatures from 300 to -40 degrees Fahrenheit. Hardened plastic shall not be acceptable.	YES	

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	Bidder Complies	
	Yes	No
A polished stainless steel lift bar to be provided for each roll-up door. Lift bar shall be located at the bottom of door and have latches on the outer extrusion of the doors frame. A ledge shall be supplied over lift bar for additional area to aid in closing the door.	YES	
Doors shall be constructed from an aluminum box section. The exterior surface of each slat shall be flat. The interior surfaces shall be concave to provide strength and prevent loose equipment from jamming the door from inside.	YES	
To conserve space in the compartments, the spring roller assembly shall not exceed 3.00" in diameter. A garage style roll door shall not be acceptable.	YES	
The header for the rollup door assembly shall not exceed 4.00".	YES	
A heavy-duty magnetic switch shall be used for control of open compartment door warning lights.	YES	
<u>REAR COMPARTMENTATION</u>		
A roll-up door compartment above the rear tailboard shall be provided.	YES	
the interior dimensions of this compartment shall be 37.00" wide x 36.50" high x 25.88" deep in the lower 27.00" of the compartment and 15.00" deep in the remaining upper portion. The clear door opening shall be a minimum of 33.88" wide x 26.63" high.	YES	
A removable access panel shall be furnished on the back wall of the compartment.	YES	
The rear compartment shall be open into the rear side compartments. The transverse opening shall be a minimum of 22.00" wide x 27.50" high.	YES	
A drip pan shall be installed below the roll of the door. A guard shall be installed behind the roll of the door. The interior height of the compartment shall be measured from the floor to the ceiling. The depth of the compartment shall be measured from the back wall to the inside of the door frame.	YES	
Closing of the door shall not require releasing, unlocking, or unlatching any mechanism and shall easily be accomplished with one hand.	YES	
<u>ROLLUP REAR COMPARTMENT DOOR</u>		
The rear compartment shall have a rollup door. The door shall be double faced aluminum construction, an anodized satin finish and manufactured by Gortite®.	YES	
Lath sections shall be an interlocking rib design and shall be individually replaceable without complete disassembly of door.	YES	
Between each slat at the pivoting joint shall be a PVC inner seal to prevent metal to metal contact and prevent dirt or moisture from entering the compartments. Seals shall allow door to	YES	

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	Bidder Complies	
	Yes	No
operate in extreme temperatures ranging from 180 to -40 degrees Fahrenheit. Side, top and bottom seals shall be provided to resist ingress of dirt and weather and be made of Santoprene.	YES	
All hinges, barrel clips and end pieces shall be nylon 66. All nylon components shall withstand temperatures from 300 to -40 degrees Fahrenheit. Hardened plastic shall not be acceptable.	YES	
A polished stainless steel lift bar to be provided for each roll-up door. Lift bar shall be located at the bottom of door and have latches on the outer extrusion of the doors frame. A ledge shall be supplied over lift bar for additional area to aid in closing the door.	YES	
Door shall be constructed from an aluminum box section. The exterior surface of each slat shall be flat. The interior surface shall be concave to provide strength and prevent loose equipment from jamming the door from inside.	YES	
To conserve space in the compartments, the spring roller assembly shall not exceed 3.00" in diameter. A garage style roll door shall not be acceptable.	YES	
The header for the rollup door assembly shall not exceed 4.00".	YES	
A heavy-duty magnetic switch shall be used for control of open compartment door warning lights.	YES	
<u>ROLL-UP DOOR TRIM</u>		
The exterior of the aluminum trim around the door opening shall be painted to match the color of the applicable door.	YES	
There shall be eight (8) compartments located all side compartment doors including crosslays with the trim painted.	YES	
<u>COMPARTMENT LIGHTING</u>		
There shall be seven (7) compartment(s) with two (2) white 12 volt DC LED compartment light strips. The dual light strips shall be centered vertically along each side of the door framing. There shall be two (2) light strips per compartment. The dual light strips shall be in all body compartment(s).	YES	
Any remaining compartments without light strips shall have a 6.00" diameter Truck-Lite, Model: 79384 light. Each light shall have a number 1076 one filament, two wire bulb.	YES	
Opening the compartment door shall automatically turn the compartment lighting on.	YES	
<u>HATCH COMPARTMENTS</u>		
Hatch compartments with two (2) lift-up, top opening hatch doors shall be provided above the left and right side body compartments. Each hatch compartment shall extend the full length of the side body compartmentation x 21.00" wide x 22.00" maximum depth. The compartments shall extend the full length of the side body compartmentation except for a 20.00" recessed step area at the rear of the compartment on the access ladder side.	YES	

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	Bidder Complies	
	Yes	No
Sides of the compartments shall be constructed of the same material as the body and painted job color on the outside panels. A chrome and black vinyl molding shall be provided to cover the seam between the top of the body panel and the bottom of the hatch compartment. The vertical outboard seam at the center of the compartment shall have a 1.00" wide painted aluminum extrusion.	YES	
Top of the compartments shall be constructed of bright aluminum treadplate.	YES	
Two (2) lift-up, bright aluminum treadplate doors shall be provided on the top of each hatch compartment. Each door shall have a lever handle with a slam style latch to hold the doors in the closed position.	YES	
These double pan doors shall have lipped edges with a rubber seal for weather resistance.	YES	
Doors shall be hinged on the outboard side and shall be held open with pneumatic stay arms.	YES	
The compartments shall have a 3/4" drain that extends to below the body.	YES	
Ribbed rubber matting shall be provided on the compartment floor to stop wet equipment from sitting in water pools.	YES	
Handrails shall be provided at the step area to the rear of the hatch compartment. One (1) curved handrail shall be mounted on the outboard side of the step area at the rear and curve over the top. One (1) straight handrail shall be mounted vertically along the inboard side of the step area.	YES	
<u>HATCH COMPARTMENT LIGHTING</u>		
There shall be LED strip lights mounted full length on the interior, hinged side of each compartment.	YES	
Opening the hatch compartment door shall automatically turn the hatch compartment lighting on.	YES	
<u>MOUNTING TRACKS</u>		
There shall be recessed tracks installed vertically to support the adjustable shelf(s).	YES	
Tracks shall not protrude into any compartment in order to provide the greatest compartment space and widest shelves possible.	YES	
The tracks shall be provided in each compartment except for the one that contains the pump operator's panel.	YES	
<u>ADJUSTABLE SHELVES</u>		
There shall be two (2) shelves with a capacity of 500 lb provided.	YES	
The shelf construction shall consist of .188" aluminum painted spatter gray with 2.00" sides.	YES	

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	Bidder Complies	
	Yes	No
Each shelf shall be infinitely adjustable by means of a threaded fastener, which slides in a track.	YES	
The shelves shall be held in place by .12" thick stamped plated brackets and bolts.	YES	
The location(s) shall be in LS1 centered between the floor and ceiling and in B1 in the upper third.	YES	
<u>SLIDE-OUT ADJUSTABLE HEIGHT TRAY</u>		
There shall be two (2) slide-out trays provided.	YES	
Each tray shall have 2.00" high sides and a minimum capacity rating of 250 lb in the extended position.	YES	
Each tray shall be constructed of aluminum painted spatter gray.	YES	
Each tray shall be mounted on a pair of side mounted slides. The slide mechanisms shall have ball bearings for ease of operation and years of dependable service. The slides shall be mounted to shelf tracks to allow the tray to be adjustable up and down within the designated mounting location.	YES	
An automatic lock shall be provided for both the in and out tray positions. The lock trip mechanism shall be located at the front of the tray and shall be easily operated with a gloved hand.	YES	
The location(s) shall be in RS3 centered between the floor and the ceiling and in RS3 in the lower third	YES	
<u>SLIDE-OUT/TILT-DOWN TRAY</u>		
There shall be three (3) slide-out trays provided.	YES	
The bottom of each tray shall be constructed of 0.188" thick aluminum painted spatter gray while special aluminum extrusions shall be utilized for the tray sides, ends, and tracks. The corners shall be welded to form a rigid unit.	YES	
A spring loaded lock shall be provided on each side at the front of the tray. Releasing the locks shall allow the tray to slide out approximately two-thirds (2/3) of its length from the stowed position and tip 30 degrees down from horizontal. The tray shall be equipped with ball bearing rollers for smooth operation.	YES	
Rubber padded stops shall be provided for the tray in the extended position.	YES	
The capacity rating of the tray shall be a minimum of 215 lb in the extended position.	YES	
The vertical position of the tray within the compartment shall be adjustable.	YES	
The location(s) shall be in RS1 centered between the floor and the ceiling, in RS2 centered between the floor and the ceiling and in RS3 in the upper third.	YES	

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	Bidder Complies	
	Yes	No
<u>SLIDE-OUT FLOOR MOUNTED TRAY</u>		
There shall be one (1) floor mounted slide-out tray(s) provided.	YES	
Each tray shall have 2.00" high sides and a minimum capacity rating of 500 lb in the extended position.	YES	
Each tray shall be constructed of aluminum painted spatter gray	YES	
There shall be two undermount-roller bearing type slides rated at 250lb each provided. The pair of slides shall have a safety factor rating of 2.	YES	
To ensure years of dependable service, the slides shall be coated with a finish that is tested to withstand a minimum of 1,000 hours of salt spray per ASTM B117.	YES	
To ensure years of easy operation, the slides shall require no more than a 50lb force for push-in or pull-out movement when fully loaded after having been subjected to a 40 hour vibration (shaker) test under full load. The vibration drive file shall have been generated from accelerometer data collected from a heavy truck chassis driven over rough gravel roads in an unloaded condition. Proof of compliance shall be provided upon request.	YES	
Automatic locks shall be provided for both the "in" and "out" positions. The trip mechanism for the locks shall be located at the front of the tray for ease of use with a gloved hand.	YES	
The location(s) shall be LS1.		
<u>SWING OUT TOOLBOARD</u>		
A swing out aluminum toolboard shall be provided.	YES	
It shall be a minimum of .188" thick with .203" diameter holes in a pegboard pattern with 1.00" centers between holes.	YES	
A 1.00" x 1.00" aluminum tube frame shall be welded to the edge of the pegboard.	YES	
The board shall be mounted on a pivoting device at the front of the compartment on the top and bottom to allow easy movement in and out of the compartment. The maximum tool load shall be 400 lb.	YES	
The board shall have positive lock in the stowed and extended position.	YES	
The board shall be mounted on adjustable tracks from front to back within the compartment.	YES	
There shall be One (1) toolboard(s) provided. The toolboard(s) shall be spatter gray painted and installed in LS2.	YES	
<u>SLIDE-OUT TOOLBOARD</u>		
There shall be four (4) slide-out toolboard(s) provided.	YES	

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	Bidder Complies	
	Yes	No
The toolboard shall be a minimum of 0.188" thick with .203" diameter holes in a pegboard pattern with 1.00" centers between holes.	YES	
A 1.00" x 1.00" aluminum tube frame shall be welded to the edge of the pegboard. A handhold cutout shall be provided on the outboard edge of the toolboard.	YES	
The board shall be mounted on an under-mount roller bearing type slide rated at 250 lb with a factor of safety of 2.	YES	
To ensure years of dependable service the slides shall be coated with a finish that is tested to withstand a minimum of 1,000 hours of salt spray per ASTM B117.	YES	
To ensure years of easy operation, the slides shall require no more than a 50 pound force for push-in or pull-out movement when fully loaded after having been subjected to a 40 hour vibration (shaker) test under full load. The vibration drive file shall have been generated from accelerometer data collected from a heavy truck chassis driven over rough gravel roads in an unloaded condition. Proof of compliance shall be provided upon request.	YES	
The slide shall be mounted on adjustable tracks side to side within the compartment.	YES	
The board shall have positive lock in the stowed and extended position.	YES	
The toolboard(s) shall be spatter gray painted and installed in RS1, 8.00" from the forward door frame, in RS1, 16.00" from the forward door frame, in RS3, 8.00" from the forward door frame and in RS3, 16.00" from the forward door frame.	YES	
<u>SCBA HOLDER</u> There shall be one (1) Zico SCBA bracket, model KD-UH-6-SF, mounted LS3 on rear wall up high.	YES	
<u>PEGBOARD</u> There shall be 3/16" thick aluminum pegboard spatter gray painted shall be installed on the back wall of two (2) compartments. It shall be mounted using two (2) horizontal tracks. Retainers shall be used to mount the pegboard to the tracks. The pegboard(s) installed shall be on the upper standard depth section of the compartment. The holes shall be .203" diameter, punched 1.00" on center. Pegboard shall be provided in the following compartments: LS2 and RS2.	YES	
<u>RUB RAIL</u> Bottom edge of the side compartments shall be trimmed with a bright aluminum extruded rub rail.	YES	
Trim shall be 3.12" high with 1.50" flanges turned outward for rigidity.	YES	
The rub rails shall not be an integral part of the body construction, which allows replacement in the event of damage.	YES	

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	Bidder Complies	
	Yes	No
Rub rails shall be attached with bolts and spaced from the body with isolators that shall help to absorb any moderate impact without damaging the body.	YES	
<u>BODY FENDER CROWNS</u>		
Polished stainless steel fender crowns shall be provided around the rear wheel openings.	YES	
A fender liner constructed of unpainted brushed stainless shall be provided to avoid paint chipping. The liners shall be removable to aid in the maintenance of rear suspension components.	YES	
A dielectric barrier shall be provided between the fender crown fasteners (screws) and the fender sheet metal to prevent corrosion.	YES	
The fender crowns shall be held in place with stainless steel screws that thread directly into a composite nut and not directly into the parent body sheet metal to eliminate dissimilar metals contact and greatly reduce the chance for corrosion.	YES	
<u>HARD SUCTION HOSE</u>		
Two (2) lengths of 6.00" Kochek Fire Grade clear corrugated hard suction hose, reinforced with a black spiral helix, 10' in length, shall be provided. The hose shall be equipped with a long handle female coupling on one (1) end and a rocker lug male coupling on the other end. Couplings shall be black anodized hard coated aluminum.	YES	
<u>HARD SUCTION HOSE STORAGE</u>		
A total of two (2) fully enclosed hard suction hose compartment(s) shall be provided one (1) on the left side and one (1) on the right side in the upper area of the body compartments and capable of storing one (1) hard suction hose each.	YES	
The trough shall be constructed of aluminum.	YES	
One (1) smooth aluminum door with a Southco raised trigger C2 chrome latch hinged along the outboard edge, shall be provided at the rear of each compartment.	YES	
<u>HANDRAILS</u>		
The handrails shall be 1.25" diameter knurled aluminum to provide a positive gripping surface.	YES	
Chrome plated end stanchions shall support the handrail. Plastic gaskets shall be used between end stanchions and any painted surfaces.	YES	
Drain holes shall be provided in the bottom of all vertically mounted handrails..	YES	
Handrails shall be located on the front of the body in positions needed to meet NFPA requirements.	YES	
Two (2) vertical handrails shall be located at the rear, one on each side of the rear compartment.	YES	

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	Bidder Complies	
	Yes	No
<u>AIR BOTTLE STORAGE (DOUBLE)</u> A quantity of one (1) air bottle compartment, 15.25" wide x 7.75" tall x 26.00" deep, shall be provided on the left side rearward of the rear wheels . A painted stainless steel door with a Southco raised trigger C2 chrome lever latch shall be provided to contain the air bottle. A dielectric barrier shall be provided between the door hinge, hinge fasteners and the body sheet metal. Inside the compartment, "W" shaped insert formed of composite materials shall be provided.	YES	
<u>AIR PACK STORAGE</u> A total of three (3) air pack compartment(s) shall be provided and located driver's side in front of rear wheels and passenger's side in front and behind rear wheels. The air pack compartment(s) shall be tapered to match the profile of the space available in the fender. The compartment(s) shall be approximately 15.50" wide at the top and 5.00" wide at the bottom for the wheel cutout. The compartment(s) shall be 15.50" tall at the body side compartment and 6.00" tall at the wheel cutout. The compartment(s) shall be 26.00" deep and have a drain hole. Inside the compartment, black Dura-Surf friction reducing material shall be provided. A painted stainless steel hinged door with a Southco raised trigger C2 chrome lever latch shall be provided to contain the air pack. A dielectric barrier shall be provided between the door hinge, hinge fasteners and the body sheet metal.	YES YES YES	
<u>AIR BOTTLE STORAGE BIN</u> A storage bin shall be provided for storage of two (2) air bottles. This storage bin shall be installed LS3 on the floor . Each separate air bottle storage compartment shall be 7.50" square x 23.00" deep. The storage bin shall be formed out of aluminum and the flooring lined with Dura-surf.	YES	
<u>AIR BOTTLE COMPARTMENT STRAP</u> A strap shall be provided in two (2) air bottle compartment/s to contain the air bottles when the vehicle is parked on an incline. The strap shall wrap around the neck and attach to the wall of the compartment and located LS3 floor bottle storage.	YES	
<u>EXTENSION LADDER</u> There shall be a 24' two-section aluminum Duo-Safety Series 900-A extension ladder provided.	YES	
<u>ROOF LADDER</u> There shall be a 14' aluminum Duo-Safety Series 775-A roof ladder provided.	YES	
<u>LADDER STORAGE</u> The ladders shall be stored inside the upper section of the left side compartments. This ladder rack shall reduce the depth of the upper section in the side compartments.	YES	

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	Bidder Complies	
	Yes	No
A partition shall be installed inside the compartment on the side of the rack to allow for equipment storage and to conceal the ladders.	YES	
The ladders shall be banked in separate storage troughs.	YES	
The ladder storage assembly shall be fabricated of stainless steel track channels to aid in loading and removal of ladders.	YES	
Rear of the ladder storage area shall have a vertically hinged smooth aluminum door with a D-handle latch to contain the ladders. The door shall be hinged along the outboard edge.	YES	
<u>FOLDING LADDER</u>		
One (1) 10.00' aluminum, Series 585-A, Duo-Safety folding ladder shall be installed.	YES	
<u>FOLDING LADDER STORAGE</u>		
One (1) folding ladder shall be stored on the right side hard suction hose compartment in a stainless steel U-shaped trough. The ladder and trough shall be located in the hard suction hose compartment.	YES	
<u>PIKE POLE, 8'</u>		
One (1) pike pole, 8' long Duo Safety with a fiberglass handle, shall be provided.	YES	
<u>PIKE POLE STORAGE</u>		
There shall be One (1) pike pole 8' or longer pike pole(s) stored in aluminum with a .75" standard notch tube(s) located in the hard suction hose compartment on the left side.	YES	
<u>PIKE POLE, 6'</u>		
One (1) pike pole, 6' long Duo Safety with a fiberglass handle, shall be provided.	YES	
<u>PIKE POLE STORAGE</u>		
There shall be One (1) pike pole 6' pike pole(s) stored in aluminum tube(s) with a .75" standard notch located in the hard suction hose compartment on the left side.	YES	
<u>LADDER, TOP ACCESS</u>		
A wide easy climbing access ladder, constructed of aluminum rungs and extruded aluminum rails, shall be provided on the opposite side of the ladder storage at the rear of the apparatus. The inside climbing area of the ladder shall be 13.75" wide.	YES	
The lower section of the ladder shall be retractable into the upper section to eliminate interference with the rear FMVSS lights. When lowered the bottom rung shall be lower than the body, approximately 16.00" to 20.00" from the ground to allow a lower first step height.	YES	
The ladder shall be slanted when in use for easy access, and fold against the body for storage to reduce the overall length. Corrosion resistant, stainless steel spring-loaded locks shall hold the ladder in place.	YES	

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	Bidder Complies	
	Yes	No
There shall be a "do not move truck" indicator activated in the cab if the ladder is not in the stowed position when the parking brake is disengaged.	YES	
<u>PUMP CONTROL PANELS (LEFT SIDE CONTROL)</u>		
Pump controls and gauges shall be located midship at the left side of the apparatus and properly identified.	YES	
The main pump operator's control panel shall be completely enclosed and located in the forward section of the body compartment, to protect against road debris and weather elements. The pump operator's panels shall be no more than 31.00" wide, and made in four (4) sections with the center section easily removable with simple hand tools. For the safety of the pump operator, there shall be no discharge outlets or pump inlets located on the main pump operators panel.	YES	
Layout of the pump control panel shall be ergonomically efficient and systematically organized. The upper section shall contain the master gauges. This section shall be angled down for easy visibility. The center section shall contain the pump controls aligned in two horizontal rows. The pressure control device, engine monitoring gauges, electrical switches, and foam controls (if applicable) shall be located on or adjacent to the center panel, on the side walls for easy operation and visibility. The lower section shall contain the outlet drains.	YES	
Manual controls shall be easy moving 8" long lever style controls that operate in a vertical, up and down swing motion. These handles shall have a 2.25" diameter knob and be able to lock in place to prevent valve creep under any pressure. Bright finish bezels shall encompass the opening, be securely mounted to the pump operator's panel, and shall incorporate the discharge gauge bezel. Bezels shall be bolted to the panel for easy removal and gauge service. The left side discharges shall be controlled directly at the valve. There shall be no push-pull style control handles. (no exception)	YES	
Identification tags for the discharge controls shall be recessed within the same bezel. The discharge identification tags shall be color coded, with each discharge having its own unique color.	YES	
All remaining identification tags shall be mounted on the pump panel in chrome-plated bezels.	YES	
All discharge outlets shall be color coded and labeled to correspond with the discharge identification tag.	YES	
The pump panels for the midship discharge and intake ports shall be located ahead of the body compartments with no side discharge or intake higher than the frame rail. The pump panels shall be easily removable with simple hand tools.	YES	
A recessed cargo area shall be provided at the front of the body, ahead of the water tank above the plumbing.	YES	

GLENWOOD SPRINGS PUMPER

		Bidder Complies	
		Yes	No
<u>PUMP</u>			
Pump shall be a low profile, 1500 gpm single stage midship mounted centrifugal type. The pump shall have a 15 percent reserve capacity to allow for extended time between pump rebuild. To ensure efficient pump/vehicle design the capacity to weight ratio shall not be less than 1.5:1.		YES	
Pump shall be the Class A type.		YES	
Pump shall be certified to deliver the percentage of rated discharge from draft at pressure indicated below: 100 percent of rated capacity at 150 psi net pump pressure 70 percent of rated capacity at 200 psi net pump pressure 50 percent of rated capacity at 250 psi net pump pressure		YES YES YES	
The pump shall have the capacity to deliver the percentage of rated discharge from a pressurized source as indicated below: 135 percent of rated capacity at 100 psi net pump pressure from a 5 psi source		YES	
Pump body shall be fine-grained gray iron. Pump shall incorporate a heater/cooling jacket integral to the pump housing.		YES	
The impeller shall be high strength vacuum cast bronze alloy accurately machine balanced and splined to a ten 10) spline stainless steel pump shaft for precision fit, exceptional durability, and efficiency. Double replaceable reverse flow labyrinth type bronze wear ring design shall help to minimize end thrust. The impeller shall be a twisted vane design to create higher lift. No keyed shafts shall be acceptable.		YES	
The pump shall include o-ring gaskets throughout the pump.		YES	
Deep groove radial type oversize ball bearings shall be provided. The bearings shall be protected at the openings from road dirt and water with an oil seal and water slinger.		YES	
The pump shall have a flat, patterned area on the top of the pump intake wye to allow standing for plumbing maintenance. The main inlet manifold shall be 6.00" in diameter and shall have a low-profile design to facilitate low crosslays and high flows.		YES	
<u>PUMP MOUNTING</u>			
The mounting shall allow chassis frame rails to flex independently without damage to the fire pump.		YES	
<u>MECHANICAL SEALS</u>			
Silicon carbide mechanical seals shall be provided. The seals shall be spring loaded and self-adjusting.		YES	

GLENWOOD SPRINGS PUMPER

	Bidder Complies	
	Yes	No
<u>PUMP GEAR CASE</u>		
The pump gear case shall be a pressure-lubricated to cool, lubricate, and filter the oil. A filter screen shall be provided for long life.	YES	
<u>PUMPING MODE</u>		
Pump shall provide for both pump and roll mode and stationary pumping mode.	YES	
Stationary pumping mode shall be accomplished by stopping the vehicle, setting the parking brake and engaging the water pump switch on the cab switch panel. The transmission shall shift to "Neutral" range automatically when the parking brake is set. The "OK to Stationary Pump" indicator shall also illuminate when the parking brake is set.	YES	
Pump and roll mode shall be accomplished by the use of the main pump and shall not require the use of a secondary pump. Pump and roll mode shall use the same operation sequence as stationary pumping mode with a few additional steps. After the vehicle is setup for stationary pumping, the operator shall leave the cab and setup the pump panel to discharge at the desired outlet(s). Upon returning to the cab, the operator shall disengage the parking brake. An "OK to Pump & Roll" indicator shall illuminate on the cab switch panel. First gear on the transmission gear selector shall be selected by the operator for pump and roll operations. The operator as needed shall apply the foot throttle. Pump and roll mode shall be maintained unless the transmission shifts out of first gear.	YES	
Stopping either stationary pumping mode or pump and roll mode shall be accomplished by pressing the "Water Pump" switch down to disengage the pump.	YES	
A pump pressure reading shall be displayed on the drivers multiplex information center, in view of the driver.	YES	
<u>PUMP SHIFT</u>		
Pump shall be engaged in not more than two steps, by simply setting the parking brake, which shall automatically put the transmission into neutral, and activating a rocker switch in the cab. Switches in the cab shall also allow for water, foam, or CAFS if equipped, and activate the appropriate system to preset parameters. The engagement shall provide simple two-step operation, enhance reliability, and completely eliminate gear clash. The shift shall include the indicator lights as mandated by NFPA. A direct override switch shall be located behind a door in the lower pump operator's panel. The switch shall automatically disengage when the door is closed.	YES	
As the parking brake is applied, the pump panel throttle shall be activated and deactivate the chassis foot throttle for stationary operation.	YES	
<u>TRANSMISSION LOCK UP</u>		
Transmission lock up is not required as transmission shall automatically shift to neutral as soon as the parking brake is set.	YES	

GLENWOOD SPRINGS PUMPER

	Bidder Complies	
	Yes	No
<u>AUXILIARY COOLING SYSTEM</u>		
A supplementary heat exchange cooling system shall be provided to allow the use of water from the discharge side of the pump for cooling the engine water. A water-to-coolant heat exchanger shall be used.	YES	
<u>INTAKE RELIEF VALVE - PUMP</u>		
There shall be One (1) Elkhart Style 40 relief valve(s) installed on the suction side of the pump preset at 125 psig.	YES	
The relief valve(s) shall have a working range of 75 psi to 250 psi.	YES	
The outlet shall terminate below the frame rails with a 2.50" National Standard hose thread adapter and shall have a "do not cap" warning tag.	YES	
The relief valve pressure control shall be located behind the right side pump panel with a stainless steel access door .	YES	
<u>PRESSURE CONTROLLER</u>		
An electronic pressure controller shall be provided.	YES	
A pressure transducer shall be installed in the discharge side of the water pump. The transducer continuously monitors pump pressure sending a signal to the electronic pressure controller.	YES	
The pressure controller can be used in two (2) modes of operation, RPM mode and pressure modes. The controller shall be programmed to turn on/default to RPM Setting mode.	YES	
In the RPM mode, the controller can be activated after vehicle parking brake has been set. When in this mode, the controller shall maintain the set engine speed, regardless of engine load (within engine operation capabilities).	YES	
In the pressure mode, the controller can be activated after vehicle parking brake has been set. When in this mode, the controller shall automatically maintain the discharge pressure set by the operator (within the discharge capabilities of the pump and water supply) regardless of flow.	YES	
A 2.00" diameter throttle control knob with no mechanical stops, a serrated grip, and a red idle push button in the center shall be a integrated/part of the pressure controller. The throttle control knob shall be programmed for Clockwise rotation to increase engine speed.	YES	
Individual LED indicators for ok to pump, throttle ready, pressure mode and rpm mode shall be located on the pressure controller for easy viewing.	YES	
A pump cavitation protection feature shall also provided which shall return the engine to idle should the pump cavitate. Cavitation is sensed by the combination of pump pressure below 30 psi and engine speed above 2000 rpm for more than five (5) seconds.	YES	

GLENWOOD SPRINGS PUMPER

	Bidder Complies	
	Yes	No
Other safety features include recognition of low water and no water conditions with an automatic programmed response and a push button to return the engine to idle.	YES	
The pressure controller LCD screen shall be 4.20" in size with a minimum brightness of 750 nits. The LCD screen and LED intensity shall be automatically adjust for day and nighttime operation. The LCD screen intensity can also be manually adjusted if needed.	YES	
The following information shall be provided/displayed on the LCD screen -		
• Engine RPM	YES	
• Check engine and stop engine warning indicators	YES	
• Engine oil pressure	YES	
• Engine coolant temperature	YES	
• Water pump temperature	YES	
• Fuel Level	YES	
• Water tank level	YES	
• Battery voltage	YES	
• Operating mode (RPM or pressure)	YES	
• Pressure or RPM setting	YES	
On screen messaging show diagnostic and warning messages as they occur. It shall show apparatus information, stored data, and program options when selected by the operator. It shall monitor inputs outputs and support audible and visual warning alarms for the following conditions -	YES	
• High battery voltage	YES	
• Low battery voltage/engine off	YES	
• Low battery voltage/engine running	YES	
• High water pump temperature	YES	
• Low fuel	YES	
• Low engine oil pressure	YES	
• High engine coolant temperature	YES	
• Water tank out of water (visual alarm only)	YES	
• No engine response (visual alarm only)	YES	
The pressure controller shall store the accumulated operating hours for the pump and engine. These items are to be displayed within the pressure controller menu.	YES	
The pressure controller shall include a USB port on the back of the controller for easy software upgrades if needed.	YES	

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	Bidder Complies	
	Yes	No
<u>PRIMING PUMP</u>		
The priming pump shall be a Trident Emergency Products compressed air powered, high efficiency, multistage venturi based AirPrime System, conforming to standards outlined in the current edition of NFPA 1901.	YES	
All wetted metallic parts of the priming system are to be of brass and stainless steel construction.	YES	
One (1) priming control shall open the priming valve and start the pump primer.	YES	
<u>PUMP MANUALS</u>		
There shall be a total of two (2) pump manuals provided by the pump manufacturer and furnished with the apparatus. The manuals shall be provided by the pump manufacturer in the form of two (2) electronic copies. Each manual shall cover pump operation, maintenance, and parts.	YES	
<u>PLUMBING, STAINLESS STEEL AND HOSE</u>		
All inlet and outlet lines shall be plumbed with either stainless steel pipe, flexible polypropylene tubing or synthetic rubber hose reinforced with hi-tensile polyester braid. All hose's shall be equipped with brass or stainless steel couplings. All stainless steel hard plumbing shall be a minimum of a schedule 10 wall thickness.	YES	
Where vibration or chassis flexing may damage or loosen piping or where a coupling is required for servicing, the piping shall be equipped with victaulic or rubber couplings.	YES	
Plumbing manifold bodies shall be ductile cast iron or stainless steel.	YES	
All piping lines are to be drained through a master drain valve or shall be equipped with individual drain valves. All drain lines shall be extended with a hose to drain below the chassis frame.	YES	
All water carrying gauge lines shall be of flexible polypropylene tubing.	YES	
All piping, hose and fittings shall have a minimum of a 500 PSI hydrodynamic pressure rating.	YES	
<u>FOAM SYSTEM PLUMBING</u>		
All piping that is in contact with the foam concentrate or foam/water solution shall be stainless steel. The fittings shall be stainless steel or brass. Cast iron pump manifolds will be allowed.	YES	
<u>MAIN PUMP INLETS</u>		
A 6.00" pump manifold inlet shall be provided on each side of the vehicle. The suction inlets shall include removable die cast zinc screens that are designed to provide cathodic protection for the pump, thus reducing corrosion in the pump.	YES	
Main pump inlets shall not be located on the main operator's panel and shall maintain a low connection height by terminating below the top of the chassis frame rail.	YES	

GLENWOOD SPRINGS PUMPER

	Bidder Complies	
	Yes	No
<u>SHORT SUCTION TUBE(S)</u>		
The suction tube(s) on the water pump shall have short suction tube(s) installed to allow for installation of adapters, elbows or intake valves without excessive overhang.	YES	
<u>INLET BUTTERFLY VALVE</u>		
One (1) big flow valve shall be provided on the right-side main pump inlet.	YES	
The 6.00" inlet valve shall be provided with a built-in, adjustable pressure relief valve and a 3/4" bleeder valve shall be provided on the inlet side of the valve. The bleeder valve controls shall be located at the threaded connection and at the pump operator's panel.	YES	
The valve shall be capable of flowing 1950 GPM at 1 PSI pressure drop.	YES	
Valve shall be electrically operated. An electric actuator, with valve position indicator lights, shall be provided at the pump operator's panel.	YES	
The electric actuator shall be furnished with a manual over ride, extended to the pump panel.	YES	
<u>INLET BUTTERFLY VALVE</u>		
One (1) big flow valve shall be provided on the left side main pump inlet.	YES	
The 6.00" inlet valve shall be provided with a built-in, adjustable pressure relief valve and a 3/4" bleeder valve shall be provided on the inlet side of the valve.	YES	
The valve shall be capable of flowing 1950 GPM at 1 PSI pressure drop.	YES	
Valve shall be electrically operated. An electric actuator, with valve position indicator lights, shall be provided at the pump operator's panel.	YES	
The electric actuator shall be furnished with a manual over ride, extended to the pump panel.	YES	
<u>MAIN PUMP INLET CAP</u>		
The main pump inlets shall have National Standard Threads with a long handle chrome cap.	YES	
The cap shall incorporate a thread design to automatically relieve stored pressure in the line when disconnected (no exception).	YES	
<u>VALVES</u>		
All ball valves shall be Akron® Brass in-line valves. The Akron valves shall be the 8000 series heavy-duty style with a stainless steel ball and a simple two-seat design. No lubrication or regular maintenance is required on the valve.	YES	
Valves shall have a ten (10) year warranty.	YES	
The location of the valve for the one (1) inlet shall be recessed behind the pump panel.	YES	

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	Bidder Complies	
	Yes	No
<u>INLET CONTROL</u> The side auxiliary inlet(s) shall incorporate a quarter-turn ball valve with the control located at the inlet valve. The valve operating mechanism shall indicate the position of the valve.	YES	
<u>LEFT SIDE INLET</u> There shall be one (1) auxiliary inlet with a 2.50" valve at the left side pump panel, terminating with a 2.50" (F) National Standard hose thread adapter. The auxiliary inlet shall be provided with a strainer, chrome swivel and plug.	YES	
<u>RIGHT SIDE INLET</u> There shall be one (1) auxiliary inlet with a 2.50" valve at the right side pump panel, terminating with a 2.50" (F) National Standard hose thread adapter. The auxiliary inlet shall be provided with a strainer, chrome swivel and plug.	YES	
<u>ANODE, INLET</u> A pair of sacrificial zinc anodes shall be provided in the water pump inlets to protect the pump from corrosion.	YES	
<u>INLET BLEEDER VALVE</u> A 0.75" bleeder valve shall be provided for each side gated inlet. The valves shall be located behind the panel with a swing style handle control extended to the outside of the panel. The handles shall be chrome plated and provide a visual indication of valve position. The swing handle shall provide an ergonomic position for operating the valve without twisting the wrist and provides excellent leverage. The water discharged by the bleeders shall be routed below the chassis frame rails.	YES	
<u>TANK TO PUMP</u> The booster tank shall be connected to the intake side of the pump with heavy duty 4.00" piping and a quarter turn 3.00" full flow line valve with the control located at the operator's panel. A rubber coupling shall be included in this line to prevent damage from vibration or chassis flexing. A check valve shall be provided in the tank to pump supply line to prevent the possibility of "back filling" the water tank.	YES	
<u>TANK REFILL</u> A 1.50" combination tank refill and pump re-circulation line shall be provided, using a quarter-turn full flow ball valve controlled from the pump operator's panel.	YES	
<u>DISCHARGE OUTLET CONTROLS</u> The right side discharges shall incorporate a quarter-turn ball valve and be controlled by Akron 9335 electric valve controllers provided on the pump operators panel. The electric controls must be of a true position feedback design, requiring no clutches in the motor or current limiting. The units must be completely sealed with momentary open, close as well and an optional one	YES	

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	Bidder Complies	
	Yes	No
touch full open feature to operate their corresponding valve actuator. The controllers shall provide position indication on a full color, backlit LCD display. They shall have manual adjustment of the brightness as well as an auto dimming option. In addition to the valve controls, the electric valve controllers shall include a pressure display	YES	
All other outlets shall have manual swing handles that operate in a vertical up and down motion. These handles shall be able to lock in place to prevent valve creep under pressure.	YES	
<u>LEFT SIDE DISCHARGE OUTLETS</u>		
There shall be two (2) discharges with a 2.50" valves on the left side of the apparatus, terminating with a 2.50" (M) National Standard hose thread adapter. Discharges shall be located below the cab, and shall be no higher than the top of the chassis frame rail. Discharges shall not be located on the pump operator's panel. Lever controls shall be provided at the valve.	YES	
<u>RIGHT SIDE DISCHARGE OUTLETS</u>		
There shall be One (1) discharge outlet with a 2.50" valve on the right side of the apparatus, terminating with a 2.50" MNST adapter. The discharge(s) shall be located below the crew cab and shall be no higher than the top of the chassis frame rail.	YES	
There shall be Akron 9335 electric valve controller(s) provided on the pump operators panel. The electric control(s) must be of a true position feedback design, requiring no clutches in the motor or current limiting. The unit(s) must be completely sealed with momentary open, close as well and an optional one touch full open feature to operate the valve actuator. The controller(s) shall provide position indication on a full color, backlit LCD display. They shall have manual adjustment of the brightness as well as an auto dimming option.	YES	
In addition to valve position, each controller shall include a pressure display.	YES	
<u>LARGE DIAMETER DISCHARGE OUTLET</u>		
There shall be a 4.00" discharge outlet with a 4.00" valve installed on the right side of the apparatus, terminating with 4.00" MNST threads. The discharge shall be located below the crew cab and shall be no higher than the top of the chassis frame rail.	YES	
There shall be an Akron 9335 electric valve controller provided on the pump operators panel. The electric control must be of a true position feedback design, requiring no clutches in the motor or current limiting. The unit must be completely sealed with momentary open, close as well and an optional one touch full open feature to operate the valve actuator. The controller shall provide position indication on a full color, backlit LCD display. It shall have manual adjustment of the brightness as well as an auto dimming option.	YES	
In addition to valve position, the controller shall include a pressure display.	YES	
<u>LARGE DIAMETER OUTLET ADAPTER</u>		
one (1) 4.00" outlet shall be furnished with a 4.00" (F) National Standard hose thread x 5.00" Storz adapter. A 5.00" Storz cap and chain shall be provided with the adapter.	YES	

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	Bidder Complies	
	Yes	No
<u>FRONT DISCHARGE OUTLET</u>		
There shall be one (1) 1.50" discharge outlet piped to the front of the apparatus and located in the center bumper tray.	YES	
Plumbing shall consist of 2.00" piping and flexible hose with a 2.00" ball valve with control at the pump operator's panel. A fabricated weldment made of stainless steel pipe shall be used in the plumbing where appropriate. The piping shall terminate with a 1.50" NST with 90 degree stainless steel swivel.	YES	
There shall be automatic drains provided at all low points of the piping.	YES	
<u>DISCHARGE CAPS/ INLET PLUGS</u>		
Chrome plated, rocker lug, caps with chain shall be furnished for all discharge outlets 1.00" thru 3.00" in size, besides the pre-connected hose outlets.	YES	
Chrome plated, rocker lug, plugs with chain shall be furnished for all auxiliary inlets 1.00" thru 3.00" in size.	YES	
The caps and plugs shall incorporate a thread design to automatically relieve stored pressure in the line when disconnected (no exception).	YES	
<u>OUTLET BLEEDER VALVE</u>		
A 0.75" bleeder valve shall be provided for each outlet 1.50" or larger. Automatic drain valves are acceptable with some outlets if deemed appropriate with the application.	YES	
The valves shall be located behind the panel with a swing style handle control extended to the outside of the side pump panel. The handles shall be chrome plated and provide a visual indication of valve position. The swing handle shall provide an ergonomic position for operating the valve without twisting the wrist and provides excellent leverage. Bleeders shall be located at the bottom of the pump panel. They shall be properly labeled identifying the discharge they are plumbed in to. The water discharged by the bleeders shall be routed below the chassis frame rails.	YES	
<u>DELUGE RISER</u>		
A 3.00" deluge riser shall be installed above the pump in such a manner that a monitor can be mounted and used effectively. Piping shall be installed securely so no movement develops when the line is charged. A 2.50" gated valve shall be installed and controlled at the pump operator's panel. The deluge outlet shall flow a minimum 1000 GPM.	YES	
<u>TELESCOPIC PIPING</u>		
The deluge riser piping shall include a 18.00" Task Force Model XGA38 Extend-A-Gun extension. The control for the extension shall be located at the pump panel.	YES	
This extension shall be telescopic to allow the deluge gun to be raised 18.00" increasing the range of operation.	YES	

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	Bidder Complies	
	Yes	No
A position sensor shall be provided on the telescopic piping that shall activate the "do not move vehicle" light inside the cab when the monitor is in the raised position.	YES	
<u>MONITOR</u> A Task Force Tips Hurricane, model XFIH-E remote controlled monitor shall be properly installed on the deluge riser.	YES	
This monitor shall include the TFT primary monitor operator station, mounted at the pump operators panel.	YES	
A wireless remote control shall be furnished.	YES	
The monitor shall have manual over-ride hand wheels in the event of electrical system malfunction.	YES	
The monitor shall be painted as provided by monitor manufacturer.	YES	
<u>NOZZLE</u> A Task Force Tips Master Stream Series M-ER nozzle shall be provided. The nozzle shall have a range of 250 to 1250 GPM, and electric pattern control.	YES	
The deluge riser Extend-a-Gun shall have a provisions for direct mounting a Task Force Hurricane monitor.	YES	
<u>CROSSLAY MODULE</u> The crosslay module shall be full width of the rear body.	YES	
The forward, upper corners of the module shall have full body corners.	YES	
The crosslay module shall be manufactured for installation of roll up doors on each side.	YES	
<u>ROLLUP DOOR, CROSSLAY ENDS</u> The compartment doors shall be rollup style, double faced aluminum construction painted one (1) color to match the lower portion of the body and manufactured by Gortite®.	YES	
Lath sections shall be an interlocking rib design and shall be individually replaceable without complete disassembly of door.	YES	
Between each slat at the pivoting joint shall be a PVC inner seal to prevent metal to metal contact and prevent dirt or moisture from entering the compartments. Seals shall allow door to operate in extreme temperatures ranging from 180 to -40 degrees Fahrenheit. Side, top and bottom seals shall be provided to resist ingress of dirt and weather and be made of Santoprene.	YES	
All hinges, barrel clips and end pieces shall be nylon 66. All nylon components shall withstand temperatures from 300 to -40 degrees Fahrenheit. Hardened plastic shall not be acceptable.	YES	

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	Bidder Complies	
	Yes	No
A polished stainless steel lift bar to be provided for each roll-up door. Lift bar shall be located at the bottom of door and have latches on the outer extrusion of the doors frame. A ledge shall be supplied over lift bar for additional area to aid in closing the door.	YES	
Doors shall be constructed from an aluminum box section. The exterior surface of each slat shall be flat. The interior surfaces shall be concave to provide strength and prevent loose equipment from jamming the door from inside.	YES	
To conserve space in the compartments, the spring roller assembly shall not exceed 3.00" in diameter. A garage style roll door shall not be acceptable.	YES	
The header for the rollup door assembly shall not exceed 4.00".	YES	
A heavy-duty magnetic switch shall be used for control of open compartment door warning lights.	YES	
The crosslays shall have a drip pan below the roll of the door.	YES	
<u>CROSSLAY COMPARTMENT LIGHTING</u>		
There shall be two (2) 12 volt DC light strips with white LEDs and mechanical fasteners, provide behind the front door frame on the crosslay compartments per the following:	YES	
- One (1) strip light for the left side crosslay compartment door - One (1) strip light for the right side crosslay compartment door	YES YES	
The lights shall be activated when the battery switch is on and the respective door is opened.	YES	
<u>CROSSLAY(S), LOWER</u>		
There shall be two (2) lower crosslays provided.	YES	
<u>1.50" Crosslays</u>		
There shall be two (2) 1.50" crosslays plumbed with 2.00" welded or formed schedule 10 304L stainless steel pipe.	YES	
The crosslays shall be low mounted with the bottom of both crosslay trays no more than 11.00" above the frame rails for simple, safe reloading and deployment (no exception).	YES	
There shall be a 1.50" National Standard hose thread 90-degree swivel provided in each hose bed, so that the hose may be removed from either side of apparatus. The swivel shall be as far outbound as possible for ease of changing hose.	YES	
Each crosslay shall be gated with a 2.00" quarter turn ball valve with the controls located at the pump operator's panel.	YES	
Each hose bed shall be capable of carrying 200' of 1.75" double jacket hose .	YES	

GLENWOOD SPRINGS PUMPER

	Bidder Complies	
	Yes	No
<u>Crosslay Hose Trays</u> A removable tray shall be provided for each crosslay hose bed. The crosslay tray shall be constructed of black poly to provide a lightweight sturdy tray. Two (2) hand holes shall be in the floor and additional hand holes shall be provided in the sides for easy removal and installation from the compartment. The floor of the trays shall be perforated to allow for drainage and hose drying. Trays shall be held in place by a mechanical spring-loaded stainless-steel latch that automatically deploys upon loading the trays to hold the trays in place during transit.	YES	
<u>CROSSLAY(S), UPPER</u> There shall be one (1) upper crosslay provided.	YES	
<u>2.50" Crosslay</u> There shall be one (1) 2.50" crosslay plumbed with 2.50" welded or formed schedule 10 304L stainless steel pipe. There shall be a 2.50" National Standard hose thread 90-degree swivel provided in each hose bed, so that hose may be removed from either side of apparatus. The swivel shall be as far outbound as possible for ease of changing hose. Each crosslay shall be gated with a 2.50" quarter turn ball valve with the controls located at the pump operator's panel. Each hose bed shall be capable of carrying 200' of 2.50" double jacket hose .	YES YES YES YES YES	
<u>Crosslay Hose Trays</u> A removable tray shall be provided for each crosslay hose bed. The crosslay tray shall be constructed of black poly to provide a lightweight sturdy tray. Two (2) hand holes shall be in the floor and additional hand holes shall be provided in the sides for easy removal and installation from the compartment. The floor of the trays shall be perforated to allow for drainage and hose drying. Trays shall be held in place by a mechanical spring-loaded stainless-steel latch that automatically deploys upon loading the trays to hold the trays in place during transit.	YES YES	
<u>STOKES BASKET STORAGE</u> Mounting shall be provide for a stokes basket located in the upper crosslay module. The stokes basket shall be enclosed and removable from either side of the truck. A Velcro® strap shall be provided on each end of the storage. The stokes basket to be stored shall be 88"L x 26"W x 9"H.	YES	

GLENWOOD SPRINGS PUMPER

	Bidder Complies	
	Yes	No
<u>HOSE REEL</u> A Hannay electric rewind hose reel shall be installed B1 rear compartment. The reel shall be painted to match the body. The reel shall have capacity for 800 to 1,000' of 1.5" single jacket wildland hose. A polished stainless steel roller and guide assembly shall be provided to assist in deployment and rewinding of the hose. Reel motor shall be protected from overload with a circuit breaker rated to match the motor. An electric rewind control switch shall be installed adjacent to the reel. Capacity of the hose reel shall be 800 to 1,000' of 1.5" single jacket flat wildland hose booster hose.	YES	
	YES	
	YES	
	YES	
	YES	
<u>FOAM PROPORTIONER</u> A foam proportioning system shall be provided that is an on demand, automatic proportioning, single point, direct injection system suitable for all types of Class A and B foam concentrates, including the high viscosity (6000 cps), alcohol resistant Class B foams. Operation shall be based on direct measurement of water flow, and remain consistent within the specified flows and pressures. The system shall automatically proportion foam solution at rates from 0.1 percent to 3 percent regardless of variations in water pressure and flow, up to the maximum rated capacity of the foam concentrate pump. The design of the system shall allow operation from draft, hydrant, or relay operation.	YES	
<u>System Capacity</u> The system shall have the ability to deliver the following minimum foam solution flow rates at accuracies that meet or exceed NFPA requirements at a pump rating of 150 psi. 100 gpm @ 3 percent 300 gpm @ 1 percent 600 gpm @ 0.5 percent Class A foam setting in 0.1 percent increments from 0.1 percent to 1 percent. Typical settings of 1 percent, 0.5 percent and 0.3 percent (maximum capacity shall be limited to the plumbing and water pump capacity).	YES	
	YES	
	YES	
	YES	
	YES	
<u>Control System</u> The system shall be equipped with a digital electronic control display located on the pump operators panel. Push button controls shall be integrated into the panel to turn the system on/off, control the foam percentage, and to set the operation modes.	YES	

GLENWOOD SPRINGS PUMPER

	Bidder Complies	
	Yes	No
The percent of injection shall have a preset. This preset can be changed at the fire department as desired. The percent of injection shall be able to be easily changed at the scene to adjust to changing demands.	YES	
Three (3) 0.50" high LEDs shall display the foam percentage in numeric characters. Three (3) indicator LEDs shall also be included, one (1) green, one (1) red, and one (1) yellow. The LEDs shall indicate various system operation or error states.	YES	
The indications shall be: • Solid Green - System On • Solid Red - Valve Position Error • Solid Yellow - Priming System • Flashing Green - Injecting Foam • Flashing Red - Low Tank Level • Flashing Yellow - Refilling Tank	YES YES YES YES YES YES	
The control display shall house a microprocessor, which receives input from the systems water flow meter while also monitoring the position of the foam concentrate pump. The microprocessor shall compare the values of the water flow versus the position/rate of the foam pump, to ensure the proportion rate is accurate. One (1) check valve shall be installed in the plumbing to prevent foam from contaminating the water pump.	YES	
<u>Hydraulic Drive System</u> The foam concentrate pump shall be powered by an electric over hydraulic drive system. The hydraulic system and motor shall be integrated into one unit.	YES	
<u>Foam Concentrate Pump</u> The foam concentrate pump shall be of positive displacement, self-priming; linear actuated design, driven by the hydraulic system. The pump shall be constructed of brass body; chrome plated stainless steel shaft, with a stainless steel piston. In order to increase longevity of the pump, no aluminum shall be present in its construction.	YES	
A relief system shall be provided which is designed to protect the drive system components and prevent over pressuring the foam concentrate pump.	YES	
The foam concentrate pump shall have minimum capacity for 3 gpm with all types of foam concentrates with a viscosity at or below 6000 cps including protein, fluoroprotein, AFFF, FFFP, or AR-AFFF. The system shall deliver only the amount of foam concentrate flow required, without recirculating foam back to the storage tank. Recirculating foam concentrate back to the storage tank can cause agitation and premature foaming of the concentrate, which can result in system failure. The foam concentrate pump shall be self-priming and have the ability to draw foam concentrate from external supplies such as drums or pails.	YES	

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	Bidder Complies	
	Yes	No
<u>External Foam Concentrate Connection</u> An external foam pick-up shall be provided to enable use of a foam agent that is not stored on the vehicle. The external foam pick-up shall be designed to allow continued operation after the on-board foam tank is empty, or the use of foam different than the foam in the foam tank.	YES	
<u>Panel Mounted External Pick-Up Connection / Valve</u> A bronze three (3)-way valve shall be provided. The unit shall be mounted to the pump panel. The valve unit shall function as the foam system tank to pump valve and external suction valve. The external foam pick-up shall be one (1) 0.75" male connection GHT (garden hose thread) with a cap.	YES	
<u>Pick-Up Hose</u> A 0.75" flexible hose with an end for insertion into foam containers shall be provided. The hose shall be supplied with a 0.75" female swivel GHT (garden hose thread) swivel connector. The hose shall be shipped loose.	YES	
<u>Discharges</u> The foam system shall be plumbed to the lower rear crosslay, lower front crosslay, upper rear crosslay and center of front bumper.	YES	
<u>System Electrical Load</u> The maximum current draw of the electric motor and system shall be no more than 55 amperes at 12 VDC.	YES	
<u>PUMP PANEL CONFIGURATION</u> The pump panel configuration shall be arranged and installed in an organized manner that shall provide user-friendly operation.	YES	
<u>PUMP AND GAUGE PANEL</u> The pump operator's panel and gauge panels shall be constructed of stainless steel with a brushed finish.	YES	
The side control panels shall be constructed of stainless steel with a brushed finish for durability and ease of maintenance.	YES	
<u>PUMP COMPARTMENT LIGHT</u> There shall be one (1) Whelen®, Model 3SC0CDCR, 3.00" white 12 volt DC LED light(s) with Whelen, Model 3FLANGEC, flange(s) installed in the plumbing area.	YES	
The light(s) shall be activated by a toggle switch located in the pump compartment area.	YES	
Engine monitoring graduated LED indicators shall be incorporated with the pressure controller.	YES	

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	Bidder Complies	
	Yes	No
<u>THROTTLE READY GREEN INDICATOR LIGHT</u> There shall be a green indicator light integrated with the pressure governor and/or engine throttle installed on the pump operators panel that is activated when the pump is in throttle ready mode.	YES	
<u>VACUUM AND PRESSURE GAUGES</u> The pump vacuum and pressure gauges shall be liquid filled and manufactured by Class 1 Incorporated ©.	YES	
The gauges shall be a minimum of 4.00" in diameter and shall have white faces with black lettering, with a pressure range of 30.00"-0-600#.	YES	
Gauge construction shall include a Zytel nylon case with adhesive mounting gasket and threaded retaining nut.	YES	
The pump pressure and vacuum gauges shall be installed adjacent to each other at the pump operator's control panel.	YES	
Test port connections shall be provided at the pump operator's panel. One (1) shall be connected to the intake side of the pump, and the other to the discharge manifold of the pump. They shall have 0.25 in. standard pipe thread connections and non-corrosive polished stainless steel or brass plugs. They shall be marked with a label.	YES	
This gauge shall include a 10 year warranty against leakage, pointer defect, and defective bourdon tube.	YES	
<u>PRESSURE GAUGES</u> The individual "line" pressure gauges for the discharges shall be interlube filled and manufactured by Class 1©.	YES	
They shall be a minimum of 2.00" in diameter and shall have white faces with black lettering.	YES	
Gauge construction shall include a Zytel nylon case with adhesive mounting gasket and threaded retaining nut.	YES	
Gauges shall have a pressure range of 30"-0-400#.	YES	
The individual pressure gauge shall be installed as close to the outlet control as practical.	YES	
This gauge shall include a 10 year warranty against leakage, pointer defect, and defective bourdon tube.	YES	
<u>WATER LEVEL GAUGE</u> An electric water level gauge shall be incorporated in the pressure controller that registers water level by means of nine (9) LEDs. They shall be at 1/8 level increments with a tank empty LED.	YES	

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	Bidder Complies	
	Yes	No
The LEDs shall be a bright type that is readable in sunlight, and have a full 180-degree of clear viewing.	YES	
To further alert the pump operator, the gauge shall have a warning flash when the tank volume is less than 25 percent. The gauge shall have down chasing LEDs when the tank is almost empty.	YES	
The level measurement shall be ascertained by sensing the head pressure of the fluid in the tank or cell.	YES	
<u>MINI SLAVE UNIT</u>		
An electric water level gauge shall be provided in the cab that registers water level by means of five (5) LEDs. They shall be at 1/4 level increments with a tank empty LED. The LEDs shall be a bright type that are readable in sunlight and have a full 180-degree of clear viewing.	YES	
The water level gauge in the cab shall be activated when the pump is in gear.	YES	
<u>WATER LEVEL GAUGE</u>		
There shall be two (2) additional water level indicator(s), Whelen®, Model PSTANK2, LED module with chrome trim, installed one (1) each side rearward of crew cab doors.	YES	
This light module(s) shall include four (4) colored levels, and function similar to the water level indicator located at the operators panel:	YES	
• First green module indicates a full water level	YES	
• Second blue module indicates a water level above 3/4 full	YES	
• Third amber module indicates a water level above 1/2 full	YES	
• Last red module indicates a water level above 1/4 full and empty	YES	
o Above 1/4 this light shall be steady burning	YES	
o At empty this light shall be flashing	YES	
The flash rate shall be determined by the main water level tank sensor.	YES	
This module shall be activated when the pump is in gear.	YES	
<u>FOAM LEVEL GAUGE</u>		
An electric foam level gauge shall be provided on the operator's panel, that registers foam level by means of nine (9) LEDs. There shall also be a mini foam level gauge with five (5) LEDs in the cab. They shall be at 1/8 level increments with a tank empty LED. The LEDs shall be a bright type that is readable in sunlight, and have a full 180 degree of clear viewing. The gauge shall match the water level gauge in the pressure controller.	YES	
To further alert the pump operator, shall have a warning flash when the tank volume is less than 25 percent, and shall have Down Chasing LEDs when the tank is almost empty.	YES	

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	Bidder Complies	
	Yes	No
The level measurement shall be ascertained by sensing the head pressure of the fluid in the tank or cell. This method provides accuracy with an array of multi-viscosity foams.	YES	
The foam level gauge in the cab shall be activated by pump is in gear.	YES	
<u>SIDE CONTROL PUMP OPERATOR'S/PUMP PANEL LIGHTING</u>		
Illumination shall be provided for controls, switches, essential instructions, gauges, and instruments necessary for the operation of the apparatus and the equipment provided on it. External illumination shall be a minimum of five (5) foot-candles on the face of the device. Internal illumination shall be a minimum of four (4) footlamberts.	YES	
The pump panels shall be illuminated by two (2) Truck-Lite, Model 60354C, 6.00" x 2.00" oval white LED lights with Model 60700, grommets and chrome covers installed on the back of the cab, one (1) on the driver's side and one (1) on the passenger's side.	YES	
The pump operator's panel shall utilize the same LED strip lighting at the forward doorframe as all other compartment lighting.	YES	
There shall be a small white LED pump engaged indicator light installed overhead.	YES	
<u>AIR HORN SYSTEM</u>		
There shall be two (2) Grover air horns recessed in the front bumper. The horn system shall be piped to the air brake system wet tank utilizing 0.38" tubing. A pressure protection valve shall be installed in-line to prevent loss of air in the air brake system.	YES	
<u>Air Horn Location</u>		
The air horns shall be located on each side of the bumper, just outside of the frame rails.	YES	
<u>AIR HORN CONTROL</u>		
The air horn(s) shall be activated by the following:		
Left side lanyard. The lanyard to be a nylon rope.	YES	
Right side lanyard. The lanyard to be a nylon rope.	YES	
<u>ELECTRONIC SIREN</u>		
A Whelen®, Model 295SLSA1, electronic siren with noise canceling microphone shall be provided.	YES	
This siren to be active when the battery switch is on and that emergency master switch is on.	YES	
Electronic siren head shall be recessed in the driver side center switch panel.	YES	
The electronic siren shall be controlled on the siren head only. No horn button or foot switches shall be required.	YES	

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	Bidder Complies	
	Yes	No
<u>SPEAKER</u>		
There shall be one (1) Whelen®, Model SA315P, black nylon composite, 100-watt, speaker with through bumper mounting brackets and polished stainless steel grille provided. The speaker shall be connected to the siren amplifier.	YES	
The speaker shall be recessed in the right side of the front bumper, towards the outside.	YES	
<u>AUXILIARY MECHANICAL SIREN</u>		
A Federal Q2B® siren shall be furnished.	YES	
The control solenoid shall be powered up after the emergency master switch is activated.	YES	
The mechanical siren shall be recessed behind the front bumper on the left side. The siren shall be supported by the bumper framework. The Federal, Model MSFMT-EF, grille shall be used on the front bumper in place of the standard Q2B mechanical siren grille.	YES	
The mechanical siren shall be actuated by two (2) foot switches, one (1) located on the officer's side and one (1) on the driver's side.	YES	
A momentary switch shall be included in the left side overhead switch panel to activate the siren brake.	YES	
A momentary chrome push button switch shall be included in the right-side dash panel to activate the siren brake.	YES	
<u>FRONT ZONE UPPER WARNING LIGHTS</u>		
There shall be a 72.00" Whelen® Freedom™ IV LED lightbar mounted on the cab roof.	YES	
The lightbar shall include the following:		
• One (1) red flashing LED module in the left side rear corner position.	YES	
• One (1) dual alley LED module in the left side end position.	YES	
• One (1) red flashing LED module in the left side front corner position.	YES	
• One (1) red flashing LED module in the left side first front position.	YES	
• One (1) blue flashing LED module in the left side second front position.	YES	
• One (1) red flashing LED module in the left side third front position.	YES	
• One (1) blue flashing LED module in the left side fourth front position.	YES	
• One (1) white flashing LED module in the left side fifth front position.	YES	
• One (1) 795 LED traffic light controller set to national standard high priority in the center positions.	YES	
• One (1) white flashing LED module in the right side fifth front position.	YES	
• One (1) blue flashing LED module in the right side fourth front position.	YES	
• One (1) red flashing LED module in the right side third front position.	YES	
• One (1) blue flashing LED module in the right side second front position.	YES	
• One (1) red flashing LED module in the right side first front position.	YES	

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	Bidder Complies	
	Yes	No
- One (1) red flashing LED module in the right side front corner position. - One (1) dual alley LED module in the right side end position. - One (1) red flashing LED module in the right side rear corner position.	YES	
There shall be clear lenses included on the lightbar.	YES	
The following switches may be a installed in the cab on the switch panel to control the lightbar:		
- a switch to control the flashing LED modules. - a switch to control the left side alley LED module. - a switch to control the right side alley LED module. - the traffic light controller with the emergency master switch only. - no momentary switch to activate the traffic light controller.	YES	
The white flashing LED modules and the traffic light controller shall be disabled when the parking brake is applied.	YES	
The eight (8) red and blue flashing LED modules in the front positions and the alley LED modules may be load managed when the parking brake is applied.	YES	
<u>LIGHTBAR MOUNTING BRACKETS</u>		
There shall be a pair of lightbar mounting brackets that shall move the lightbar forward of the normal position on the cab roof to allow additional lightbars to be mounted between the main lightbar and the raised roof. These brackets shall be made of 12 gauge steel, and painted black.	YES	
<u>FRONT ZONE LOWER LIGHTS</u>		
There shall be four (4) Whelen®, Model C6L**, 5.12" high x 7.56" long x 1.56" deep flashing LED warning lights installed on the cab face above the headlights, in a bezel similar to the headlight bezel per the following:	YES	
- The left side outside warning light to include red LEDs. - The left side inside warning light to include red LEDs. - The right side inside warning light to include red LEDs. - The right side outside warning light to include red LEDs. - The warning light lens color(s) to be clear. - The housing to be polished and the trim shall be chrome.	YES	
The lights shall be controlled per the following:		
- There shall be a switch in the cab on the switch panel to control the lights. - White LEDs shall be deactivated when the parking brake is applied. - Amber LEDs shall be deactivated when the parking brake is released. - Blue, green or red LEDs in the center positions may be load managed when the parking brake is applied.	YES	

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	Bidder Complies	
	Yes	No
<u>HEADLIGHT FLASHER</u>		
The high beam headlights shall flash alternately between the left and right side.	YES	
There shall be a switch installed in the cab on the switch panel to control the high beam flash. This switch shall be live when the battery switch and the emergency master switches are on.	YES	
The flashing shall automatically cancel when the hi-beam headlight switch is activated or when the parking brake is set.	YES	
<u>SIDE ZONE LOWER LIGHTING</u>		
There shall be six (6) Whelen®, Model C6L**, 5.12" high x 7.56" wide x 1.54" deep flashing LED warning lights with chrome trim installed per the following:	YES	
Two (2) lights located, one (1) each side on the bumper extension. The driver's side, side front light to include red warning LEDs and the passenger's side, side front light to include red warning LEDs.	YES	
Two (2) lights located, one (1) each side above the front wheels. The driver's side, side middle light to include red warning LEDs and the passenger's side, side middle light to include red warning LEDs.	YES	
Two (2) lights located, one (1) each side above rear wheels. The driver's side, side rear light to include red warning LEDs and the passenger's side, side rear light to include red warning LEDs.	YES	
The warning light lens color(s) to be clear.	YES	
There shall be a switch in the cab on the switch panel to control the lights.	YES	
<u>SIDE WARNING LIGHTS</u>		
There shall be two (2) Whelen®, Model C9L**, 8.12" high x 10.12" wide x 1.56" deep flashing LED warning light(s) with chrome trim provided front of hatch compartments on both sides.	YES	
The light(s) to include red flashing LEDs.	YES	
The warning light lens color(s) to be clear.	YES	
There shall be a switch in the cab on the switch panel to control the light(s).	YES	
The light(s) may be load managed when the parking brake is applied.	YES	
<u>REAR ZONE LOWER LIGHTING</u>		
There shall be two (2) Whelen®, Model C6L**, 5.12" high x 7.56" wide x 1.56" deep flashing LED warning light(s) with chrome trim provided at the rear of the apparatus.	YES	
the driver's side rear light to be red	YES	
the passenger's side rear light to be red	YES	
the warning light lens color(s) to be clear	YES	

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	Bidder Complies	
	Yes	No
There shall be a switch in the cab on the switch panel to control the lights.	YES	
<u>REAR AND SIDE UPPER ZONE WARNING LIGHTS</u>		
There shall be four (4) Whelen®, Model C9L**, 8.12" high x 10.12" wide x 1.56" deep flashing LED warning lights chrome trim provided per the following:	YES	
One (1) light installed on the left side, side of the apparatus as high and close to the rear as practical. The side rear upper light on the driver's side to include red LEDs.	YES	
One (1) light installed on the left side, rear of the apparatus as high and close to the outside as practical. The rear upper light on the driver's side to include red LEDs.	YES	
One (1) light installed on the right side, rear of the apparatus as high and close to the outside as practical. The rear upper light on the passenger's side to include red LEDs.	YES	
One (1) light installed on the right side, side of the apparatus as high and close to the rear as practical. The side rear upper light on the passenger's side to include red LEDs.	YES	
The clear.	YES	
There shall be a switch in the cab on the switch panel to control the lights.	YES	
<u>TRAFFIC DIRECTING LIGHT</u>		
There shall be one (1) Whelen®, Model TAL65, 36.00" long x 2.87" high x 2.25" deep, amber LED traffic directing light installed at the rear of the apparatus.	YES	
The Whelen, Model TACTL5, control head shall be included with this installation.	YES	
The controller shall be energized when the battery switch is on.	YES	
The auxiliary flash not activated.	YES	
This traffic directing light shall be recessed with a stainless steel trim plate at the rear of the apparatus as high as practical.	YES	
The traffic directing light control head shall be located in the driver side overhead switch panel in the right panel position.	YES	
<u>INVERTER</u>		
There shall be a Xantrex Model 806-1802, inverter furnished and properly wired into the chassis battery system.	YES	
This inverter shall have a built-in 120 volt up to 30 amps transfer switch.	YES	
This inverter has been rated at 1350 watts to meet the NFPA testing requirements.	YES	
The inverter shall provide 120 volts AC power when the shoreline inlet is not connected.	YES	
It shall be mounted on rear cab wall and have adequate ventilation. The master switch shall be located in the cab.	YES	

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	Bidder Complies	
	Yes	No
<u>LIGHT TOWER</u>		
There shall be one (1) Command Light Knight, Model KL408D-W1, light tower provided on the apparatus.	YES	
There shall be six (6) Whelen®, Model PCH1*, 12 volt DC LED light heads included on this tower.	YES	
This tower shall to include the back light option.	YES	
The lights included on this tower may be load managed when the parking brake is applied.	YES	
This tower shall activate the Do Not Move Truck Indicator light in the cab if not in the stowed position when the parking brake is released.	YES	
<u>Light Tower Location</u>		
The light tower shall be installed on the cab roof.	YES	
<u>Light Tower Controller</u>		
There shall be a panel mount with handheld wireless remote controller included with the light tower.	YES	
<u>Light Tower Controller Location</u>		
The light tower controller shall be installed in the driver's side front body compartment.	YES	
<u>120 VOLT RECEPTACLE</u>		
There shall be two (2), 15/20 amp 120 volt AC three (3) wire straight blade duplex receptacle(s) with interior stainless steel wall plate(s), installed one in each EMS compartment. The NEMA configuration for the receptacle(s) shall be 5-20R.	YES	
The receptacle(s) shall be powered from the shoreline to 120 volt AC power inverter internal transfer sw.	YES	
There shall be a label installed near the receptacle(s) that state the following:		
• Line Voltage	YES	
• Current Rating (amps)	YES	
• Phase	YES	
• Frequency	YES	
<u>120 VOLT RECEPTACLE</u>		
There shall be two (2), 15/20 amp 120 volt AC three (3) wire straight blade duplex receptacle(s) with white receptacle(s) and stainless steel wall plate(s), installed LS1 compartment 26" off the floor to the bottom of recept on forward side wall close to the rear wall and in RS1 26" off the floor to the bottom of recept on forward side wall close to the rear wall. The NEMA configuration for the receptacle(s) shall be 5-20R.	YES	

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	Bidder Complies	
	Yes	No
The receptacle(s) shall be powered from the shoreline to 120 volt AC power inverter internal transfer sw.	YES	
There shall be a label installed near the receptacle(s) that state the following:		
- Line Voltage - Current Rating (amps) - Phase - Frequency	YES YES YES YES	
<u>LOOSE EQUIPMENT</u>		
The following equipment shall be furnished with the completed unit:		
One (1) bag of chrome, stainless steel, or cadmium plated screws, nuts, bolts and washers, as used in the construction of the unit	YES	
<u>NFPA REQUIRED LOOSE EQUIPMENT PROVIDED BY FIRE DEPARTMENT</u>		
The following loose equipment as outlined in NFPA 1901, 2016 edition, section 5.9.3 and 5.9.4 shall be provided by the fire department.	YES	
800 ft (60 m) of 2.50" (65 mm) or larger fire hose. 400 ft (120 m) of 1.50" (38 mm), 1.75" (45 mm), or 2.00" (52 mm) fire hose. - One (1) handline nozzle, 200 gpm (750 L/min) minimum. - Two (2) handline nozzles, 95 gpm (360 L/min) minimum. - One (1) smoothbore or combination nozzle with 2.50" shutoff that flows a minimum of 250 gpm. - One (1) SCBA complying with NFPA 1981 for each assigned seating position, but not fewer than four (4), mounted in brackets fastened to the apparatus or stored in containers supplied by the SCBA manufacturer. - One (1) spare SCBA cylinder for each SCBA carried, each mounted in a bracket fastened to the apparatus or stored in a specially designed storage space(s). - One (1) first aid kit. - Four (4) combination spanner wrenches. - Two (2) hydrant wrenches. - One (1) double female 2.50" (65 mm) adapter with National Hose threads. - One (1) double male 2.50" (65 mm) adapter with National Hose threads. - One (1) rubber mallet, for use on suction hose connections. - Two (2) salvage covers each a minimum size of 12 ft x 14 ft (3.7 m x 4.3 m). - One (1) traffic vest for each seating position, each vest to comply with ANSI/ISEA 207, <i>Standard for High Visibility Public Safety Vests</i>, and have a five-point breakaway feature that includes two (2) at the shoulders, two (2) at the sides, and one (1) at the front. - Five (5) fluorescent orange traffic cones not less than 28.00" (711 mm) in height, each equipped with a 6.00" (152 mm) retro-reflective white band no more than 4.00" (102 mm) wide.		

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	Bidder Complies	
	Yes	No
from the top of the cone, and an additional 4.00" (102 mm) retro-reflective white band 2.00" (51 mm) below the 6.00" (152 mm) band. • Five (5) illuminated warning devices such as highway flares, unless the five (5) fluorescent orange traffic cones have illuminating capabilities. • One (1) automatic external defibrillator (AED). • Four (4) ladder belts meeting the requirements of NFPA 1983, <i>Standard on Fire Service Life Safety Rope and System Components</i> (if equipped with an aerial device). • If the supply hose carried does not use sexless couplings, an additional double female adapter and double male adapter, sized to fit the supply hose carried, shall be carried mounted in brackets fastened to the apparatus. • If none of the pump intakes are valved, a hose appliance that is equipped with one or more gated intakes with female swivel connection(s) compatible with the supply hose used on one side and a swivel connection with pump intake threads on the other side shall be carried. Any intake connection larger than 3.00" (75 mm) shall include a pressure relief device that meets the requirements of 16.6.6. • If the apparatus does not have a 2.50" National Hose (NH) intake, an adapter from 2.50" NH female to a pump intake shall be carried, mounted in a bracket fastened to the apparatus if not already mounted directly to the intake. • If the supply hose carried has other than 2.50" National Hose (NH) threads, adapters shall be carried to allow feeding the supply hose from a 2.50" NH thread male discharge and to allow the hose to connect to a 2.50" NH female intake, mounted in brackets fastened to the apparatus if not already mounted directly to the discharge or intake.		
<u>SOFT SUCTION HOSE</u> There shall be no soft suction hose provided.	YES	
<u>STRAINER PROVIDED BY FIRE DEPARTMENT</u> NFPA 1901, 2016 edition, section 5.8.2.1.1 requires a suction strainer when suction hose is provided. The strainer is not on the apparatus as manufactured. The fire department shall provide the suction strainer.	YES	
<u>DRY CHEMICAL EXTINGUISHER PROVIDED BY FIRE DEPARTMENT</u> NFPA 1901, 2016 edition, section 5.9.4 requires one (1) approved dry chemical portable fire extinguisher with a minimum 80-B:C rating mounted in a bracket fastened to the apparatus. The extinguisher is not on the apparatus as manufactured. The fire department shall provide and mount the extinguisher.	YES	
<u>WATER EXTINGUISHER PROVIDED BY FIRE DEPARTMENT</u> NFPA 1901, 2016 edition, section 5.9.4 requires one (1) 2.5 gallon or larger water extinguisher mounted in a bracket fastened to the apparatus.	YES	

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	Bidder Complies	
	Yes	No
The extinguisher is not on the apparatus as manufactured. The fire department shall provide and mount the extinguisher.	YES	
<u>FLATHEAD AXE PROVIDED BY FIRE DEPARTMENT</u>		
NFPA 1901, 2016 edition, Section 5.9.4 requires one (1) flathead axe mounted in a bracket fastened to the apparatus.	YES	
The axe is not on the apparatus as manufactured. The fire department shall provide and mount the axe.	YES	
<u>PICKHEAD AXE PROVIDED BY FIRE DEPARTMENT</u>		
NFPA 1901, 2016 edition, Section 5.9.4 requires one (1) pickhead axe mounted in a bracket fastened to the apparatus.	YES	
The axe is not on the apparatus as manufactured. The fire department shall provide and mount the axe.	YES	
<u>PAINT</u>		
The exterior custom cab and body painting procedure shall consist of a seven (7) step finishing process as follows:	YES	
1. <u>Manual Surface Preparation</u> - All exposed metal surfaces on the custom cab and body shall be thoroughly cleaned and prepared for painting. Imperfections on the exterior surfaces shall be removed and sanded to a smooth finish. Exterior seams shall be sealed before painting. Exterior surfaces that shall not be painted include; chrome plating, polished stainless steel, anodized aluminum and bright aluminum treadplate.	YES	
2. <u>Chemical Cleaning and Pretreatment</u> - All surfaces shall be chemically cleaned to remove dirt, oil, grease, and metal oxides to ensure the subsequent coatings bond well. The aluminum surfaces shall be properly cleaned and treated using a high pressure, high temperature 4 step Acid Etch process. The steel and stainless surfaces shall be properly cleaned and treated using a high temperature 3 step process specifically designed for steel or stainless. The chemical treatment converts the metal surface to a passive condition to help prevent corrosion.	YES	
3. <u>Surfacer Primer</u> - The Surfacer Primer shall be applied to a chemically treated metal surface to provide a strong corrosion protective basecoat. A minimum thickness of 2 mils of Surfacer Primer is applied to surfaces that require a Critical aesthetic finish. The Surfacer Primer is a two-component high solids urethane that has excellent sanding properties and an extra smooth finish when sanded.	YES	
4. <u>Finish Sanding</u> - The Surfacer Primer shall be sanded with a fine grit abrasive to achieve an ultra-smooth finish. This sanding process is critical to produce the smooth mirror like finish in the topcoat.	YES	
5. <u>Sealer Primer</u> - The Sealer Primer is applied prior to the Basecoat in all areas that have not been previously primed with the Surfacer Primer. The Sealer Primer is a two-	YES	

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	Bidder Complies	
	Yes	No
component high solids urethane that goes on smooth and provides excellent gloss hold out when topcoated. 6. <u>Basecoat Paint</u> - Two coats of a high performance, two component high solids polyurethane basecoat shall be applied. The Basecoat shall be applied to a thickness that shall achieve the proper color match. The Basecoat shall be used in conjunction with a urethane clear coat to provide protection from the environment. 7. <u>Clear Coat</u> - Two (2) coats of Clear Coat shall be applied over the Basecoat color. The Clear Coat is a two-component high solids urethane that provides superior gloss and durability to the exterior surfaces. Lap style and roll-up doors shall be Clear Coated to match the body. Paint warranty for the roll-up doors shall be provided by the roll-up door manufacturer.	YES	
After the cab and body are painted, the color shall be verified to make sure that it matches the color standard. Electronic color measuring equipment shall be used to compare the color sample to the color standard entered into the computer. Color specifications shall be used to determine the color match. A Delta E reading shall be used to determine a good color match within each family color.	YES	
All removable items such as brackets, compartment doors, door hinges, and trim shall be removed and painted separately if required, to ensure paint behind all mounted items. Body assemblies that cannot be finish painted after assembly shall be finish painted before assembly.	YES	
The paint finish quality levels for critical areas of the apparatus (cab front and sides, body sides and doors, and boom lettering panels) are to meet or exceed Cadillac/General Motors GMW15777 global paint requirements. Orange peel levels are to meet or exceed the #6 A.C.T. standard in critical areas. These requirements must be met in order for the exterior paint finish to be considered acceptable. The manufacture's written paint standards shall be available upon request.	YES	
<u>PAINT - ENVIRONMENTAL IMPACT</u> Contractor shall meet or exceed all current state regulations concerning paint operations. Pollution control shall include measures to protect the atmosphere, water and soil. Controls shall include the following conditions:	YES	
• Topcoats and primers shall be chrome and lead free.	YES	
• Metal treatment chemicals shall be chrome free. The wastewater generated in the metal treatment process shall be treated on-site to remove any other heavy metals.	YES	
• Particulate emission collection from sanding operations shall have a 99.99% efficiency factor.	YES	
• Particulate emissions from painting operations shall be collected by a dry filter or water wash process. If the dry filter is used, it shall have an efficiency rating of 98.00%. Water wash systems shall be 99.97% efficient	YES	
• Water from water wash booths shall be reused. Solids shall be removed on a continual basis to keep the water clean.	YES	

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	Bidder Complies	
	Yes	No
• Paint wastes are disposed of in an environmentally safe manner. • Empty metal paint containers shall be recycled to recover the metal. • Solvents used in clean-up operations shall be recycled on-site or sent off-site for distillation and returned for reuse.	YES YES YES	
Additionally, the finished apparatus shall not be manufactured with or contain products that have ozone depleting substances. Contractor shall, upon demand, present evidence that the manufacturing facility meets the above conditions and that it is in compliance with his state EPA rules and regulations.	YES	
<u>CAB TWO-TONE PAINT</u> The cab shall be painted two-tone with the upper section painted #10 white and the lower section painted #90 red. There shall be a standard two-tone cab paint break provided.	YES	
There shall be a standard cab shield provided.	YES	
<u>TWO-TONE BODY PAINT</u> The body shall be painted two-tone with the upper section painted to match the upper section of the cab and the lower section painted to match the lower section of the cab. The body paint break shall be at the seam between the body and hatch compartment or catwalk on each side.	YES	
<u>PAINT CHASSIS FRAME ASSEMBLY</u> The chassis frame assembly shall be finished with a single system black top coat before the installation of the cab and body, and before installation of the engine and transmission assembly, air brake lines, electrical wire harnesses, etc.	YES	
Components treated with epoxy E-coat protection prior to paint: • Two (2) C-channel frame rails	YES	
Components that are included with the chassis frame assembly that shall be painted not e-coated are: • Cross members • Axles • Suspensions • Steering gear • Battery boxes • Bumper extension weldment • Frame extensions • Body mounting angles • Rear Body support substructure (front and rear) • Pump house substructure • Air tanks	YES YES YES YES YES YES YES YES YES YES YES	

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	Bidder Complies	
	Yes	No
- Steel fuel tank - Castings - Individual piece parts used in chassis and body assembly	YES	
The E-coat process shall meet the technical properties shown.	YES	
<u>AXLE HUB PAINT</u>		
All axle hubs shall be painted to match lower job color.	YES	
<u>TRANSIT COATING</u>		
All non-painted metal surfaces on the exterior of the vehicle shall be sprayed with a corrosion protective coating. The coating can be removed with soap and water. The coating is made of a linseed oil base and is biodegradable.	YES	
The underside non-painted metal surfaces shall also be coated with a corrosion protective coating.	YES	
<u>COMPARTMENT INTERIOR PAINT</u>		
The interior of all compartments shall be painted with a gray spatter type paint.	YES	
<u>REFLECTIVE STRIPES</u>		
Three (3) reflective stripes shall be provided across the front of the vehicle and along the sides of the body. The reflective band shall consist of a 1.00" white stripe at the top with a 1.00" gap then a 6.00" white stripe with a 1.00" gap and a 1.00" white stripe on the bottom.	YES	
The reflective band provided on the cab face shall be at the headlight level.	YES	
<u>REAR CHEVRON STRIPING</u>		
There shall be alternating chevron striping located on the rear-facing vertical surface of the apparatus. The rear surface, excluding the rear roll up door, shall be covered.	YES	
The colors shall be red and fluorescent yellow green diamond grade.	YES	
Each stripe shall be 6.00" in width.	YES	
This shall meet the requirements of the current edition of NFPA 1901, which states that 50% of the rear surface shall be covered with chevron striping.	YES	
<u>FOLDED RIBBON IN REFLECTIVE STRIPE</u>		
There shall be one (1) folded type ribbon/s added to the reflective stripe located on the LS3 & RS3 roll-up doors..	YES	
<u>OUTLINE, REFLECTIVE STRIPE</u>		
A Black outline shall be applied on the top and the bottom of the reflective band. There shall be three (3) set of outline stripes required.	YES	

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	Bidder Complies	
	Yes	No
<u>STRIPE ON REAR ACCESS DOORS</u>		
There shall be alternating striping located on the rear access doors.	YES	
The colors shall be red and fluorescent yellow green diamond grade.	YES	
The stripes shall be 6.00" in width and shall match the chevron pattern on the rear body.	YES	
<u>CAB DOOR REFLECTIVE STRIPE</u>		
A 6.00" x 16.00" black reflective stripe shall be provided across the interior of each cab door.	YES	
The stripe shall be located approximately 1.00" up from the bottom, on the door panel.		
This stripe shall meet the NFPA 1901 requirement.	YES	
<u>CAB FACE STRIPE</u>		
There shall be a vinyl stripe across the face of the cab.	YES	
<u>LETTERING</u>		
The lettering shall be totally encapsulated between two (2) layers of clear vinyl.	YES	
<u>LETTERING</u>		
There shall be genuine gold leaf lettering, 3.00" high, with outline and shade provided. There shall be eight (8) letters provided.	YES	
<u>LETTERING</u>		
Sixty-one (61) to eighty (80) reflective lettering, 3.00" high, with outline and shade shall be provided.	YES	
<u>LETTERING</u>		
Twenty-one (21) to forty (40) reflective lettering, 4.00" high, with outline and shade shall be provided.	YES	
<u>LETTERING</u>		
Twenty-one (21) to forty (40) reflective lettering, 8.00" high, with outline and shade shall be provided.	YES	
<u>MALTESE CROSS INSTALLATION</u>		
There shall be one (1) pair of maltese crosses, comprised of genuine gold leaf material, provided and installed cab doors.	YES	
<u>EMBLEM</u>		
There shall be two (2) emblem(s), approximately 9.00" - 11.00" wide in size, installed behind crew cab doors. The emblem shall feature a "Flying American Flag" and an "Eagle Head".	YES	
<u>CAB GRILLE DESIGN</u>		
An American flag design shall be painted on the cab grille.	YES	

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	Bidder Complies	
	Yes	No
<u>FIRE APPARATUS PARTS MANUAL</u> There shall be one (1) custom parts manual(s) in USB flash drive format for the complete fire apparatus provided. The manual(s) shall contain the following: • Job number • Part numbers with full descriptions • Table of contents • Parts section sorted in functional groups reflecting a major system, component, or assembly • Parts section sorted in alphabetical order • Instructions on how to locate parts Each manual shall be specifically written for the chassis and body model being purchased. It shall not be a generic manual for a multitude of different chassis and bodies. <u>Service Parts Internet Site</u> The service parts information included in these manuals are also available on the factory website. The website offers additional functions and features not contained in this manual, such as digital photographs and line drawings of select items. The website also features electronic search tools to assist in locating parts quickly. <u>CHASSIS SERVICE MANUALS</u> There shall be one (1) chassis service manuals on USB flash drives containing parts and service information on major components provided with the completed unit. The manual shall contain the following sections: • Job number • Table of contents • Troubleshooting • Front Axle/Suspension • Brakes • Engine • Tires • Wheels • Cab • Electrical, DC • Air Systems • Plumbing • Appendix	YES YES YES YES YES YES YES YES YES YES YES YES YES YES YES YES YES YES YES YES YES YES YES	

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	Bidder Complies	
	Yes	No
The manual shall be specifically written for the chassis model being purchased. It shall not be a generic manual for a multitude of different chassis and bodies.	YES	
<u>CHASSIS OPERATION MANUAL</u>		
The chassis operation manual shall be provided on one (1) USB flash drive.	YES	
<u>ONE (1) YEAR MATERIAL AND WORKMANSHIP</u>		
Each new piece of apparatus shall be provided with a minimum one (1) year basic apparatus material and workmanship limited warranty. The warranty shall cover such portions of the apparatus built by the manufacturer as being free from defects in material and workmanship that would arise under normal use and service.	YES	
A copy of the warranty certificate shall be submitted with the bid package (no exception).	YES	
<u>ENGINE WARRANTY</u>		
A five (5) year limited engine warranty shall be provided. A copy of the warranty certificate shall be submitted with the bid package.	YES	
<u>STEERING GEAR WARRANTY</u>		
A TRW one (1) year limited steering gear warranty shall be provided. A copy of the warranty certificate shall be submitted with the bid package.	YES	
<u>FIFTY (50) YEAR STRUCTURAL INTEGRITY</u>		
The chassis frame shall be provided with a fifty (50) year material and workmanship limited warranty. The warranty shall cover the chassis frame as being free from defects in material and workmanship that would arise under normal use and service.	YES	
A copy of the warranty certificate shall be submitted with the bid package (no exception).	YES	
<u>FRONT AXLE WARRANTY</u>		
A Eaton five (5)-year/100,000 mile parts and labor warranty shall be provided.	YES	
<u>REAR AXLE WARRANTY</u>		
A Eaton five (5)-year/100,000 mile parts and labor warranty shall be provided.	YES	
<u>ABS BRAKE SYSTEM THREE (3) YEAR MATERIAL AND WORKMANSHIP WARRANTY</u>		
A Meritor Wabco™ ABS brake system three (3) year limited warranty shall be provided.	YES	
<u>TEN (10) YEAR STRUCTURAL INTEGRITY</u>		
The new cab shall be provided with a ten (10) year material and workmanship limited warranty. The warranty shall cover such portions of the cab built by the manufacturer as being free from structural failures caused by defects in material and workmanship that would arise under normal use and service.	YES	
A copy of the warranty certificate shall be submitted with the bid package (no exception).	YES	

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	Bidder Complies	
	Yes	No
<u>TEN (10) YEAR PRO-RATED PAINT AND CORROSION</u> Each new piece of apparatus shall be provided with a ten (10) year pro-rated paint and corrosion limited warranty on the apparatus cab. The warranty shall cover painted exterior surfaces of the body to be free from blistering, peeling, corrosion, or any other adhesion defect caused by defective manufacturing methods or paint material selection that would arise under normal use and service. A copy of the warranty certificate shall be submitted with the bid package (no exception).	YES	
<u>FIVE (5) YEAR MATERIAL AND WORKMANSHIP</u> The electronic modules and display(s) shall be provided with a five (5) year material and workmanship limited warranty. The warranty shall cover electronic modules to be free from failures caused by defects in material and workmanship. A copy of the warranty certificate shall be submitted with the bid package (no exception).	YES	
<u>CAMERA SYSTEM WARRANTY</u> A fifty four (54) month warranty shall be provided for the camera system.	YES	
<u>COMPARTMENT LIGHT WARRANTY</u> A ten (10) year material and workmanship limited warranty shall be provided for the 12-volt DC LED strip lights. The warranty shall cover the LED strip lights to be free from defects in material and workmanship that would arise under normal use. A copy of the warranty certificate shall be submitted with the bid package (no exception).	YES	
<u>TRANSMISSION WARRANTY</u> The transmission shall have a five (5) year/unlimited mileage warranty covering 100 percent parts and labor. The warranty is to be provided by Allison Transmission and not the apparatus builder.	YES	
<u>TRANSMISSION COOLER WARRANTY</u> The transmission cooler shall carry a five (5) year parts and labor warranty (exclusive to the transmission cooler). In addition, a collateral damage warranty shall also be in effect for the first three (3) years of the warranty coverage and shall not exceed \$10,000 per occurrence. A copy of the warranty certificate shall be submitted with the bid package.	YES	
<u>WATER TANK WARRANTY</u> The UPF poly water tank shall be provided with a lifetime material and workmanship limited warranty. A copy of the warranty certificate shall be submitted with the bid package (no exception).	YES	
<u>TEN (10) YEAR STRUCTURAL INTEGRITY</u> Each new piece of apparatus shall be provided with a ten (10) year material and workmanship limited warranty on the apparatus body. The warranty shall cover such portions of the	YES	

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	Bidder Complies	
	Yes	No
apparatus built by the manufacturer as being free from defects in material and workmanship that would arise under normal use and service.	YES	
A copy of the warranty certificate shall be submitted with the bid package (no exception).	YES	
<u>ROLL UP DOOR MATERIAL AND WORKMANSHIP WARRANTY</u>		
A Gortite roll-up door limited warranty shall be provided. The mechanical components of the roll-up door shall be warranted against defects in material and workmanship for the lifetime of the vehicle. A six (6) year limited warranty shall be provided on painted and satin roll up doors.	YES	
A copy of the warranty certificate shall be submitted with the bid package.	YES	
<u>SIX (6) YEAR PARTS, ONE (1) YEAR LABOR</u>		
The pump and its components shall be provided with a six (6) year parts and one (1) year labor limited warranty. The manufacturer's warranty shall provide that the pump and its components shall be free from failures caused by defects in material and workmanship that would arise under normal use and service.	YES	
A copy of the warranty certificate shall be submitted with the bid package (no exception).	YES	
<u>TEN (10) YEAR PUMP PLUMBING WARRANTY</u>		
The stainless steel plumbing components and ancillary brass fittings used in the construction of the water/foam plumbing system shall be warranted for a period of ten (10) years or 100,000 miles . This covers structural failures caused by defective design or workmanship, or perforation caused by corrosion, provided the apparatus is used in a normal and reasonable manner. This warranty is extended only to the original purchaser for a period of ten years from the date of delivery.	YES	
A copy of the warranty certificate shall be submitted with the bid package (no exception).	YES	
<u>FOAM SYSTEM WARRANTY</u>		
A one (1) year material and workmanship limited warranty shall be provided on the foam system. A five (5) year material and workmanship limited warranty shall be provided on the foam system control head.	YES	
A copy of the warranty certificate shall be submitted with the bid package (no exception).	YES	
<u>TEN (10) YEAR PRO-RATED PAINT AND CORROSION</u>		
Each new piece of apparatus shall be provided with a ten (10) year pro-rated paint and corrosion limited warranty on the apparatus body. The warranty shall cover painted exterior surfaces of the body to be free from blistering, peeling, corrosion, or any other adhesion defect caused by defective manufacturing methods or paint material selection that would arise under normal use and service.	YES	
A copy of the warranty certificate shall be submitted with the bid package (no exception).	YES	

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	Bidder Complies	
	Yes	No
<u>THREE (3) YEAR MATERIAL AND WORKMANSHIP</u> The gold leaf lamination shall be provided with a three (3) year material and workmanship limited warranty. The warranty shall cover the gold leaf lamination as being free from defects in material and workmanship that would arise under normal use and service. A copy of the warranty certificate shall be submitted with the bid package (no exception).	YES	
<u>VEHICLE STABILITY CERTIFICATION</u> The fire apparatus manufacturer shall provide a certification stating the apparatus complies with NFPA 1901, current edition, section 4.13, Vehicle Stability. The certification shall be provided at the time of bid.	YES	
<u>ENGINE INSTALLATION CERTIFICATION</u> The fire apparatus manufacturer shall provide a certification, along with a letter from the engine manufacturer stating they approve of the engine installation in the bidder's chassis. The certification shall be provided at the time of delivery.	YES	
<u>POWER STEERING CERTIFICATION</u> The fire apparatus manufacturer shall provide a certification stating the power steering system as installed meets the requirements of the component supplier. The certification shall be provided at the time of bid.	YES	
<u>CAB INTEGRITY CERTIFICATION</u> The fire apparatus manufacturer shall provide a cab crash test certification with this proposal. The certification shall state that a specimen representing the substantial structural configuration of the cab has been tested and certified by an independent third party test facility. Testing events shall be documented with photographs, real-time and high-speed video, vehicle accelerometers, cart accelerometers, and a laser speed trap. The fire apparatus manufacturer shall provide a state licensed professional engineer to witness and certify all testing events. Testing shall meet or exceed the requirements below: • European Occupant Protection Standard ECE Regulation No.29. • SAE J2422 Cab Roof Strength Evaluation - Quasi-Static Loading Heavy Trucks. • SAE J2420 COE Frontal Strength Evaluation - Dynamic Loading Heavy Trucks.	YES YES YES	
<u>Roof Crush</u> The cab shall be subjected to a roof crush force of 22,500 lb. This value meets the ECE 29 criteria, and is equivalent to the front axle rating up to a maximum of ten (10) metric tons.	YES	
<u>Side Impact</u> The same cab shall be subjected to dynamic preload where a 13,275-lb moving barrier is slammed into the side of the cab at 5.50 mph, striking with an impact of 13,000 ft-lb of force. This test is part of the SAE J2422 test procedure and more closely represents the forces a cab shall see in a rollover incident.	YES	

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	Bidder Complies	
	Yes	No
<u>Frontal Impact</u> The same cab shall withstand a frontal impact of 32,600 ft-lb of force using a moving barrier in accordance with SAE J2420.	YES	
<u>Additional Frontal Impact</u> The same cab shall withstand a frontal impact of 65,200 ft-lb of force using a moving barrier. (Twice the force required by SAE J2420)	YES	
The same cab shall withstand all tests without any measurable intrusion into the survival space of the occupant area.	YES	
There shall be no exception to any portion of the cab integrity certification. Nonconformance shall lead to immediate rejection of bid.	YES	
<u>CAB DOOR DURABILITY CERTIFICATION</u> Robust cab doors help protect occupants. Cab doors shall survive a 200,000 cycle door slam test where the slamming force exceeds 20 G's of deceleration. The bidder shall certify that the sample doors similar to those provided on the apparatus have been tested and have met these criteria without structural damage, latch malfunction, or significant component wear.	YES	
<u>WINDSHIELD WIPER DURABILITY CERTIFICATION</u> Visibility during inclement weather is essential to safe apparatus performance. Windshield wipers shall survive a 3 million cycle durability test in accordance with section 6.2 of SAE J198 <i>Windshield Wiper Systems - Trucks, Buses and Multipurpose Vehicles</i>. The bidder shall certify that the wiper system design has been tested and that the wiper system has met these criteria.	YES	
<u>SEAT BELT ANCHOR STRENGTH</u> Seat belt attachment strength is regulated by Federal Motor Vehicle Safety Standards and should be validated through testing. Each seat belt anchor design shall withstand 3000 lb of pull on both the lap and shoulder belt in accordance with FMVSS 571.210 Seat Belt Assembly Anchorages. The bidder shall certify that each anchor design was pull tested to the required force and met the appropriate criteria.	YES	
<u>SEAT MOUNTING STRENGTH</u> Seat attachment strength is regulated by Federal Motor Vehicle Safety Standards and should be validated through testing. Each seat mounting design shall be tested to withstand 20 G's of force in accordance with FMVSS 571.207 Seating Systems. The bidder shall certify, at time of delivery, that each seat mount and cab structure design was pull tested to the required force and met the appropriate criteria.	YES	
<u>PERFORMANCE CERTIFICATIONS</u> <u>Cab Air Conditioning</u> Good cab air conditioning temperature and air flow performance keeps occupants comfortable, reduces humidity, and provides a climate for recuperation while at the scene. The cab air	YES	

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	Bidder Complies	
	Yes	No
conditioning system shall cool the cab from a heat-soaked condition at 100 degrees Fahrenheit to an average of 78 degrees Fahrenheit in 30 minutes. The bidder shall certify that a substantially similar cab has been tested and has met these criteria.	YES	
<u>Cab Defroster</u> Visibility during inclement weather is essential to safe apparatus performance. The defroster system shall clear the required windshield zones in accordance with SAE J381 Windshield Defrosting Systems Test Procedure And Performance Requirements - Trucks, Buses, And Multipurpose Vehicles. The bidder shall certify that the defrost system design has been tested in a cold chamber and passes the SAE J381 criteria.	YES	
<u>Cab Auxiliary Heater</u> Good cab heat performance and regulation provides a more effective working environment for personnel, whether in-transit, or at a scene. An auxiliary cab heater shall warm the cab 77 degrees Fahrenheit from a cold-soak, within 30 minutes when tested using the coolant supply methods found in SAE J381. The bidder shall certify, at time of delivery, that a substantially similar cab has been tested and has met these criteria.	YES	
<u>AMP DRAW REPORT</u> The bidder shall provide, at the time of bid and delivery, an itemized print out of the expected amp draw of the entire vehicle's electrical system.	YES	
The manufacturer of the apparatus shall provide the following:		
Documentation of the electrical system performance tests.	YES	
- A written load analysis, which shall include the following: - The nameplate rating of the alternator.	YES	
- The alternator rating under the conditions specified per: - Applicable NFPA 1901 or 1906 (Current Edition).	YES	
- The minimum continuous load of each component that is specified per: - Applicable NFPA 1901 or 1906 (Current Edition).	YES	
- Additional loads that, when added to the minimum continuous load, determine the total connected load.	YES	
- Each individual intermittent load.	YES	
All of the above listed items shall be provided by the bidder per the applicable NFPA 1901 or 1906 (Current Edition).	YES	



Option List

12/31/2021

Customer: Glenwood Springs Fire Department
Representative Kerber, Wayne
Organization: Front Range Fire Apparatus, Ltd
Requirements Manager:
Description: Glenwood Springs Pumper
Body: Pumper, PUC, Aluminum
Chassis: Enforcer Chassis, PUC

Bid Number: 1036
Job Number:
Number of Units: 1
Bid Date: 11/15/2021
Stock Number:
Price Level: 40 (Current: 40)
Lane:

Line	Option	Type	Option Description	Qty
1	0766589		Boiler Plates, PUC Pumper Fire Department/Customer - Glenwood Springs Fire Department Operating/In conjunction W-Service Center - Operating Miles - 250 Miles Number of Fire Dept/Municipalities - 5 Bidder/Sales Organization - Front Range Fire Apparatus Delivery - Delivery representative Dealership/Sales Organization, Service - Front Range Fire Apparatus	1
2	0661794		Single Source Compliance	1
3	0584456		Manufacture Location, Appleton, Wisconsin	1
4	0584452		RFP Location: Appleton, Wisconsin	1
5	0588609		Vehicle Destination, US	1
6	0610784		Comply NFPA 1901 Changes Effective Jan 1, 2016, With Exceptions	1
7	0533347		Pumper/Pumper with Aerial Device Fire Apparatus	1
8	0588611		Vehicle Certification, Pumper	1
9	0661778		Agency, Apparatus Certification, Pumper/Tanker, U.L.	1
10	0000114		Inspection Trip(s) Qty, - 03 Fill in Blank - three (3)	3
11	0537375		Unit of Measure, US Gallons	1
12	0000035		Bid Bond, 5%	1
13	0582697		Performance Bond, 100% with Warranty Bond, 1 Yr, and Payment Bond Percentage, Contract - 100%	1
14	0000007		Approval Drawing	1
15	0002928		Electrical Diagrams	1
16	0625939		Enforcer Chassis, PUC	1
17	0000110		Wheelbase Wheelbase - 195"	1
18	0000070		GVW Rating GVW rating - 47,000#	1
19	0729280		Frame Rails, 13.38 x 3.50 x .375, Enforcer	1
20	0020018		Frame Liner Not Req'd	1
21	0784595	SP	Axle, Front, EZ Trac, Hydraulic AWD, 20,000 lb, Enf	1
22	0637913		Suspension, Front, Standens, Taper Leaf, 20,000 lb, Saber FR/Enforcer	1
23	0000321		Shock Absorbers on Front Axle, Monroe Magnum 65, Saber/Enforcer	1
24	0000322		Oil Seals, Front Axle	1
25	0765282		Tires, Front, Michelin, XZU S2, 315/80R22.50, 20 ply LRL, Fire Service Speed Rtng	1
26	0614396		Wheels, Front, Alcoa, 22.50" x 9.00", Aluminum, Hub Pilot, M-H 4x4	1
27	0640711		Axle, Rear, Dana S26-190, 27,000 lb Saber/Enforcer	1
28	0544253		Top Speed of Vehicle, 68 MPH	1
29	0565380		Suspen, Rear, Single Slipper Spring, 27,000 lb, Saber/Enforcer	1
30	0000485		Oil Seals, Rear Axle	1
31	0000482		Driver Controlled Differential Lock, Single Axle	1
32	0070728		Tires, Rear, Michelin, XDN2, 12R22.50, 16 ply, Single	1
33	0019625		Wheels, Rear, Alcoa, 22.50" x 8.25", Aluminum, Hub Pilot, Single	1
34	0568081		Tire Balancing, Counteract Beads	1
35	0620570		Tire Pressure Monitoring, RealWheels, AirSecure, Valve Cap, Single Axle Qty, Tire Pressure Ind - 6	1
36	0001960		Axle Hub Covers, Rear, S/S, High Hat (Pair)	1
37	0057936		Covers, Lug Nut, Chrome	1
38	0002045		Mud Flap, Front and Rear, Pierce Logo	1

Line	Option	Type	Option Description	Qty
39	0760675		Chains, Onspot, Automatic Tire, Custom	1
40	0544802		Chocks, Wheel, SAC-44-E, Folding	1
			Qty, Pair - 01	
41	0544806		Mounting Brackets, Chocks, SAC-44-E, Folding, Horizontal	1
			Qty, Pair - 01	
			Location, Wheel Chocks - Left Side Rear Compt	
42	0593760		ESC/ABS/ATC Wabco Brake System, Single Rear Axle, 2010	1
43	0784588	SP	Brakes, Bendix, ADB22X, 17" Disc, Front, w EZ Trac System	1
44	0627930		Brakes, Bendix, Cam, Rear, 16.50 x 8.63"	1
45	0735527		Air Compressor, Brake, Wabco 26.8 CI, Paccar	1
46	0644232		Brake Reservoirs, 4,272 Cubic Inch Minimum Capacity, Saber FR/Enforcer	1
47	0568012		Air Dryer, Wabco System Saver 1200, Heater, 2010	1
48	0000790		Brake Lines, Nylon	1
49	0000854		Air Inlet, w/Disconnect Coupling	1
			Location, Air Coupling(s) - a) DS Step Well, Forward	
			Qty, Air Coupling (s) - 1	
50	0745971		Engine, Paccar MX13, 510HP, 1850 lb-ft W/OBD, EPA 2021, REPTO, Enforcer	1
51	0001244		High Idle w/Electronic Engine, Custom	1
52	0735687		Engine Brake, Fully Integrated, Paccar MX13 Engine	1
			Switch, Engine Brake - MX13	
53	0644227		Clutch, Fan, Air Actuated, Saber FR/Enforcer	1
54	0640477		Air Intake, Metal Screen, Saber FR/Enforcer	1
55	0794743		Exhaust System, 5", X12/X15, MX13, Engine, Horizontal, Right Side	1
56	0775589	SP	Exhaust, Modified 20 Degree - Approval Req'd	1
57	0788765		Radiator, Saber FR/Enforcer	1
58	0001090		Cooling Hoses, Rubber	1
59	0001125		Fuel Tank, 65 Gallon, Left Side Fill	1
60	0001129		Lines, Fuel	1
61	0734655		DEF Tank, 7.3 Gallon, LS Fill, Under Cab, Paccar, Fill Dr, ENF	1
			Door, Material & Finish, DEF Tank - Painted	
62	0552793		Not Required, Fuel Priming Pump	1
63	0552712		Not Required, Shutoff Valve, Fuel Line	1
64	0699437		Cooler, Chassis Fuel, Not Req'd.	1
65	0690880		No Selection Required From This Category	1
66	0642582		Trans, Allison 5th Gen, 4000 EVS P, w/Prognostics, Imp/Vel/DCF/SFR/Enf	1
67	0625331		Transmission, Shifter, 6-Spd, Push Button, 4000 EVS	1
68	0517604		Transmission Programming, Park to Neutral, PUC	1
69	0684459		Transmission Oil Cooler, Modine, External	1
70	0001375		Driveline, Spicer 1810	1
71	0734212		Steering, Dual Gear, TRW TAS-65, w/tilt, Paccar Pump w/ Cooler, Enf, Paccar	1
72	0605356		Steering Wheel, 4 Spoke without Controls, Saber FR/Enforcer	1
73	0690274		Logo/Emblem, on Dash	1
			Text, Row (1) One - GLENWOOD	
			Text, Row (2) Two - SPRINGS	
			Text, Row (3) Three - blank	
74	0606557		Bumper, 13" Extended, Saber FR/Enforcer	1
75	0639017		Tray, Hose, Center, 13" Bumper, Outside Air Horns	1
			Grating, Bumper extension - Grating, Rubber	
			Capacity, Bumper Tray - 18) 75' of 1.75"	
76	0633480		Cover, Aluminum Treadplate, Two (2) Flush Lift and Turn Latches, Hose Tray	1
			Stay arm, Tray Cover - b) Pneumatic Stay Arm	
77	0778092		Lift & Tow Package, Enforcer	1
78	0061058		Tow Eyes, Below Deck, S/S	1
79	0625646		Cab, Enforcer, 7010, PUC	1
80	0747442		Engine Tunnel, X12, MX13, Enforcer	1
81	0610508		Rear Wall, Interior, Adjustable Seating, Not Available	1
82	0632103		Rear Wall, Exterior, Cab, Saber FR/Enforcer	1
			Material, Exterior Rear Wall - Painted	
83	0639727		Cab Lift, Elec/Hyd, Manual Override, Saber FR/Enforcer	1
84	0695930		Grille, Bright Finished, Front of Cab, Dash CF/Enforcer	1
85	0002224		Scuffplates, S/S At Cab Door Jambs, 4-Door Cab	1
			Material Trim/Scuffplate - c) S/S, Polished	

Line	Option	Type	Option Description	Qty
86	0647932		Not Required, Trim, S/S Band, Across Cab Face, AXT/Dash CF/Saber/Enforcer	1
87	0087357		Molding, Chrome on Side of Cab	1
88	0697030		Mirrors, Ramco, 6001PCHR, Heated/Remote, w/Heated/Remote Convex, Cab Corner Mnt	1
89	0648172		Door, Full Height, Saber FR/Enforcer 4-Door Cab, Raised Roof	1
			Key Model, Cab Doors - 751	
			Cab, Exterior Door Handle, Finish - 4-Door, Chrome/Black	
90	0655543		Door Panel, Brushed Stainless Steel, Saber/Enforcer 4-Door Cab	1
91	0528958		Not Required, Controls, Electric Window, AXT, Quantum, Saber, Enforcer, Dash CF	1
92	0638310		Steps, 4-Door Cab, Saber FR/Enforcer	1
			Step Well Material - Aluminum Treadplate	
93	0770194		Handrail, Exterior, Knurled, Alum, 4-Door Cab	1
94	0892638		Lights, Cab & Crw Cab Acs Stps, P25, LED w/Bezel, 6lts	1
			Color, Trim - Chrome Housing	
95	0002141		Fenders, s/s on cab - Saber/Enforcer	1
96	0785414		Handrail, 7", Below Cab Windshield, Pair	1
97	0637984		Window, Side of C/C, Fixed, Saber FR/Enforcer	1
98	0012090		Not Required, Windows, Front/Side of raised roof	1
99	0779033		Not Required, Windows Rear of Crew Cab, Saber FR/Enforcer	1
100	0898549		Cab Air Filtration, TFT CrewProtect, 12v DC, Loc, CARE	1
			Qty, CrewProtect Filter - No additional	
			Location, Occupant Filtration System - Rear of Driver Seat	
101	0553057		Holder, Cup, Cab/Crewcab, Each	4
			Qty, - 04	
102	0722796		Dash, Poly, Saber FR/Enforcer	1
103	0607217		Mounting Provisions, 3/16" Alum, Full Engine Tunnel, Saber FR/Enforcer	1
			Mounting Provision Spacing - 1.00"	
			Material Finish, Cab Interior - Painted	
104	0765928	SP	Plate, 2" Spaced, Computer Mounting, Officer Side of Eng Tnl, Painted Black	1
105	0750824		Cab Interior, Vinyl Headliner, Saber FR/Enforcer, CARE	1
			Color, Cab Interior Vinyl/Fabric - Endure Vinyl - Silver/Gray	
			Engine Tunnel Cover - Dark Silver Gray Endure Vinyl	
			Cab Interior Rear Wall Material - Painted Aluminum	
106	0753903		Cab Interior, Paint Color, Saber FR/Enforcer	1
			Color, Cab Interior Paint - i) fire smoke gray	
107	0728672		Floor, Lonseal, Lonplate II, Cab & Crew Cab, Custom Chassis, CARE	1
			Color, Interior Flooring - Lonplate II (P443)	
108	0722696		HVAC, Enforcer, CARE	1
			HVAC System, Filter Access - Removable Panel	
			Auxiliary Cab Heater - Both	
			HVAC System, Control Loc. - Panel Position #12	
			Plenum Cover Material - Formed Plastic	
109	0639675		Sun Visor, Smoked Lexan, AXT, Imp/Vel, Saber FR/Enforcer	1
			Sun Visor Retention - Polished S/S Bracket	
110	0634328		Grab Handles, Driver and Officer Door Posts, Saber FR/Enforcer	1
111	0583938		Lights, Engine Compt, Custom, Auto Sw, Wln 3SC0CDCR, 3" LED, Trim	1
			Qty, - 01	
112	0631830		Fluid Check Access, Saber FR/Enforcer, Arrow XT	1
113	0583039		Not Required, Side Roll and Frontal Impact Protection	1
114	0622619		Seating Capacity, 4 Seats	1
115	0636957		Seat, Driver, Pierce PSV, Air Ride, High Back, Saber FR/Enforcer	1
116	0636947		Seat, Officer, Pierce PSV, Fixed, High Back, Saber FR/Enforcer	1
117	0620420		Radio Compartment, Below Non-Air Ride Seat, Saber FR/Enforcer	1
118	0632853		Seat, Rear Facing C/C, DS Outboard, Pierce PSV, Hi-Back, Saber FR/Enforcer	1
119	0102783		Not Required, Seat, Rr Facing C/C, Center	1
120	0632849		Seat, Rear Facing C/C, PS Outboard, Pierce PSV, Hi-Back, Saber FR/Enforcer	1
121	0781735		Cabinet, Forward Facing, LS, 22 W x 30 H x 16.25 D, Roll, SFR/Enf	1
			Light, Short Cabinet - Pierce, Interior, Right Side and Pierce, Interior, Left Side	
			Material Finish, Shelf - Painted - Cab Interior	
			Shelf/Tray, Cabinet - (1) Shelf, Adjustable, 1.25" Up-Turned Lip	
			Door, Cab Interior Cabinet - Rollup, Gortite, Anodized, Non-Locking	
			Louvers, Cabinet - 0-No Louvers	

Line	Option	Type	Option Description	Qty
122	0103319		Not Required, Seat, Forward Facing C/C, Center	1
123	0781320		Cabinet, Forward Facing, RS, 22 W x 30 H x 16.25 D, Roll, SFR/Enf	1
			Light, Short Cabinet - Pierce, Interior, Right Side and Pierce, Interior, Left Side	
			Material Finish, Shelf - Painted - Cab Interior	
			Shelf/Tray, Cabinet - (1) Shelf, Adjustable, 1.25" Up-Turned Lip	
			Door, Cab Interior Cabinet - Rollup, Gortite, Anodized, Non-Locking	
			Louvers, Cabinet - 0-No Louvers	
124	0766467		Upholstery, Seats In Cab, All Vinyl, Seats Inc, CARE	4
			Color, Cab Interior Vinyl/Fabric - Endure Vinyl - Silver/Gray	
			Qty, - 04	
125	0511471		No SCBA Brackets Required In Cab Seats, Imp/Vel, AXT 2010, Qtm 2010,Saber FR/Enf	1
126	0603866		Seat Belt, Dual Retractor, ReadyReach, Saber FR/Enforcer	1
			Seat Belt Color - Red	
127	0602464		Helmet Storage, Provided by Fire Department, NFPA 2016	1
128	0647647		Lights, Dome, FRP Dual LED 4 Lts	1
			Color, Dome Lt - Red & White	
			Color, Dome Lt Bzl - Black	
			Control, Dome Lt White - Door Switches and Lens Switch	
			Control, Dome Lt Color - Lens Switch	
129	0689748		Handlts, (4) Streamlight, E-Spot FireBox, 45865 LED, 12v, Orange, Vehicle Mnt	1
			Location, Lights - 2 on top of each EMS cabinet bulbs facing the rear of the truck.	
130	0603606		Cab Instruments, Ivory Gauges, Chrome Bezels, Enf MUX	1
			Emergency Switching - Individual Switches	
131	0509511		Air Restriction Indicator, Imp/Vel, AXT, Dash CF, Enf MUX	1
132	0543751		Light, Do Not Move Apparatus	1
			Alarm, Do Not Move Truck - Pulsing Alarm	
133	0509042		Messages, Open Dr/DNMT, Color Dsply,	1
134	0611683		Switching, Cab Instrument Lower Console & Overhead, Membrane, Enforcer WiFi MUX	1
135	0644179		Wiper Control, 2-Speed with Intermittent, Saber FR/Enforcer	1
136	0636439		Wiring, Spare, 37.5 A 12V DC, Cust Install Radio, 30A Bat Dir, 7.5A Ign & Grnd	1
			Qty, - 01	
			Location - radio compartment under officer's seat	
137	0548004		Wiring, Spare, 15 A 12V DC 1st	3
			Qty, - 03	
			12vdc power from - Battery direct	
			Wire termination - 15 amp power point plug	
			Location, Spare Wiring - Officer Dash and 1 in each EMS compartment rear wall up high	
138	0548006		Wiring, Spare, 15 A 12V DC 2nd	1
			Qty, - 01	
			12vdc power from - Battery switched	
			Wire termination - Butt Splice	
			Location - officer's side of dash for customer supplied Knox Box	
139	0585914		Wiring, Spare, 20 A 12V DC, 6 Circuit Fuse Block, Blue Sea 5025 1st	1
			Qty, - 01	
			12vdc power from - Battery direct	
			Location - on the raceway between the driver's seat and the rear facing seat on the driver's side	
140	0548007		Wiring, Spare, 15 A 12V DC 3rd	1
			Qty, - 01	
			12vdc power from - Battery direct	
			Wire termination - Butt Splice	
			Location - officer's side of dash for customer installed MDT	
141	0610968		Wiring, Spare, 2.0 A 12V DC, USB Termination Blue Sea 1016 1st	2
			Qty, - 02	
			12vdc power from - Battery direct	
			Location - one on the driver's side of engine tunnel and one on the officer's side of engine tunnel	
142	0615386		Vehicle Information Center, 7" Color Display, Touchscreen, MUX	1
			System Of Measurement - US Customary	

Line	Option	Type	Option Description	Qty
143	0734857		Collision Mitigation, HAAS Alert (R2V), HA5	1
			Subscription, HAAS R2V - R2V - 5 Year Data Plan Subscription	
144	0606247		Vehicle Data Recorder w/CZ Display Seat Belt Monitor	1
145	0745192		Intercom, David Clark, 5-Pos, 3-Radio, (D,O,RPTT), 2obC, (P, Radio Belt Station)	1
			Location - within reach of the driver and officer	
			Location, Intercom, C Cab - 2) 2 rearward facing seats	
146	0637058		David Clark Universal Radio Interfaces Included with Single/Dual System	1
			Location, Radio Interface - to radio compartment under officer's seat	
147	0597914		Headset, David Clark, H3442 Under Helmet, Flex Mic	4
			Qty, - 04	
			Location - Driver, officer and two rearward facing seats	
148	0681408		Hangers For Headsets, NFPA, Each	4
			Qty, - 04	
			Location, Headset Hangers - Driver Seat, Officer Seat, DS Outbrd, Rear	
			Fcng Seat and PS Outbrd, Rear Fcng Seat	
149	0698805		Bracket, Johnny Ray, Heavy Duty Swivel, 14 lb. Rating	1
			Location - centered on the lower dash towards the windshield	
150	0699100		Install Customer Provided Key Storage, Knox Box, in Cab	1
			Location - on the engine tunnel adjacent to the front angled part of the	
			blister as per instrument drawing	
			Qty, - 01	
151	0616382		Install Customer Provided GPS/Multimode Antenna(s)	1
			Qty, - 01	
152	0559156		Install Customer Provided Two-Way Radio(s)	1
			Location - on the swivel mount	
			Qty, - 01	
153	0640003		Install Customer Provided Modem	1
			Location - on the vertical surface on the wall directly behind the officers	
			seat	
			Qty, - 01	
154	0696438		Antenna Mount, Custom Chassis, Cable Routed to Radio Box	1
			Location - best available location	
			Qty, - 01	
155	0653519		Camera, Pierce, Driver Mux, R, RS, LS Cameras	1
			Camera System Audio - Not Provided	
156	0615112		Pierce Command Zone, Advanced Electronics & Control System, Enforcer, WiFi	1
157	0624253		Electrical System, Enforcer MUX	1
158	0079166		Batteries, (4) Exide Grp 31, 950 CCA ea, Threaded Stud	1
159	0008621		Battery System, Single Start, All Custom Chassis	1
160	0002698		Battery Compartment, Saber/Enforcer	1
161	0531338		Charger, Sngl Sys, Kussmaul, Pump Plus 1200, 52-21-1100	1
162	0598209		Location, Charger/Compr, Behind Passenger's Seat with Cover	1
163	0537512		Location, Bat Chrg Ind, Display Through Window Behind Driver Seat	1
164	0016857		Shoreline, 20A 120V, Kussmaul Auto Eject, 091-55-20-120, Super	1
			Qty, - 01	
			Color, Kussmaul Cover - d) yellow	
			Shoreline Connection - Kussmaul Pump Plus & receipts in D1, P2 & EMS	
			compartments	
165	0026800		Shoreline Location	1
			Location, Shoreline(s) - DS Cab, Frt Corner	
166	0647728		Alternator, 430 amp, Delco Remy 55SI	1
167	0092582		Load Manager/Sequencer, MUX	1
			Enable/Disable Hi-Idle - e)High Idle enable	
168	0783157		Headlights, Rect LED, JW Spkr Evo 2, Heat, AXT/DCF/Enf/Imp/Sab/Vel	1
			Color, Headlight Bez - Chrome Bezel	
169	0625953		Light, Directional, Wln 600 Cmb, Cab Crn, Wrp Bzl Out HD Lts, Enf, Sab FR	1
			Color, Lens, LED's - m)match LED's	
170	0620054		Light, Directional/Marker, Intermediate, Weldon 9186-8580-29 LED 2lts	1
171	0735474		Lights, Clearance/Marker/ID, Front, P25 LED 7 Lts, Saber FR/Enforcer	1
			Light Guard - No Guards	
172	0625210		Lights, Directional, Cab Front Side, Truck-Lite 19036Y LED, AXT/Enf	1
173	0088869		Lights, Clearance/Marker/ID, Rear, Truck-Lite 26250R LED 7Lts	1
174	0517025		Lights, Tail, Wrap-around, Stop/Tail, Turn & Backup LED, Tri-Cluster	1

Line	Option	Type	Option Description	Qty
175	0085910		Lights, Backup Included in Signal Cluster	1
176	0663884		Bracket, License Plate & Light, P25 LED, Temp Under Tailbrd	1
			Location - on driver's side	
177	0589905		Alarm, Back-up Warning, PRECO 1040	1
178	0626588		Lights, Perimeter Cab, TecNiq T10-LC00-1 15" LED 4Dr	1
179	0617901		Lights, Perimeter Pump House, TecNiq T10-LC00-1 15" LED 2lts	1
180	0626579		Lights, Perimeter Body, TecNiq T10-LC00-1 15" LED 2lts, Rear Step	1
			Control, Perimeter Lts - Parking Brake Applied	
181	0557322		Lights, Step, P25 at Rear Tailboard, PUC, 4lts Perm Lts	1
182	0792512		Light, Roof Mt, HiViz, FT-B-X-72-*-*, Cnt Feature, Mux	1
			Control, Scene Lts - Cab Sw Panel DS	
			Color, Lt Housing HiViz - White	
			Scene Light Optics - Flood/Spot	
183	0775524		Lights, Wln, P*H1* Pioneer, 12 VDC, 1st	1
			Location - driver's side of cab behind crew cab door up high	
			Qty, - 01	
			Color, Wln Lt Housing - White Paint	
			Control, Scene Lts - Cab Sw Panel DS	
			Scene Light Optics - combination	
			Mount, Wln II - Semi-recessed 15 deg P**1	
184	0774948		Lights, Wln, P*H1* Pioneer, 12 VDC, 2nd	1
			Location - passenger's side of cab behind crew cab door up high	
			Qty, - 01	
			Color, Wln Lt Housing - White Paint	
			Control, Scene Lts - Cab Sw Panel DS	
			Scene Light Optics - combination	
			Mount, Wln II - Semi-recessed 15 deg P**1	
185	0774017		Lights, Wln, P*H1* Pioneer, 12 VDC, 3rd	2
			Location - rear of the body up high on each side	
			Qty, - 02	
			Color, Wln Lt Housing - White Paint	
			Control, Scene Lts - Cab Sw Panel DS	
			Scene Light Optics - Flood/Spot	
			Mount, Wln II - Semi-recessed 15 deg P**1	
186	0774334		Lights, Wln, P*H1* Pioneer, 12 VDC, 2nd	1
			Location - passenger's side of hatch compartment towards the rear	
			Qty, - 01	
			Color, Wln Lt Housing - White Paint	
			Control, Scene Lts - PS Scene Lts	
			Scene Light Optics - Flood/Spot	
			Mount, Wln II - Semi-recessed 15 deg P**1	
187	0774336		Lights, Wln, P*H1* Pioneer, 12 VDC, 1st	1
			Location - driver's side of hatch compartment towards the rear	
			Qty, - 01	
			Color, Wln Lt Housing - White Paint	
			Control, Scene Lts - DS Scene Lts	
			Scene Light Optics - Flood/Spot	
			Mount, Wln II - Semi-recessed 15 deg P**1	
188	0532358		Not Required, Deck Lights, Other Hose Bed & Rear Lighting	1
189	0893593		Lights, Hose Bed, Below Alum Cvr, Dual LED Light Strips	1
			Control, Hose Bed Lts - Auto Cover Sw	
190	0645677		Lights, Not Required, Rear Work, Alt. 12 Volt Lights At Rear Body	1
191	0709438		Light, Walking Surf, FRP Flood, LED	1
192	0518282		Pumper, PUC, Aluminum	1
193	0554271		Body Skirt Height, 20"	1
194	0519696		Tank, Water, 500 Gallon, Poly, Rectangle, Form Fitting, PUC	1
195	0003405		Overflow, 4.00" Water Tank, Poly	1
196	0028107		Not Required, Foam Cell Modification	1
197	0553729		Not Required, Restraint, Water Tank, Heavy Duty	1
198	0003429		Not Required, Direct Tank Fill	1
199	0003424		Not Required, Dump Valve	1
200	0048710		Not Required, Jet Assist	1
201	0030007		Not Required, Dump Valve Chute	1

Line	Option	Type	Option Description	Qty
202	0514778		Not Required, Switch, Tank Dump Master	1
203	0597043		Body Height, PUC/HDRP	1
			Body Height - 92.00"	
204	0199241		Hose Bed, Aluminum, Pumper, PUC	1
205	0723340		Unpainted/Brush Finished, Hose Bed, 3G PUC/HDRP	1
206	0003481		Hose Bed Capacity, Special	1
			Capacity, Hosebed - 1,000' of 5" LDH & 500' of 2.5" DJ	
207	0003488		Divider, Hose Bed, Unpainted	1
			Qty, Hosebed Dividers - 1	
208	0530804		Cover, Hose Bed, Alum Treadplate	1
209	0515622		Flap, Rear of Alum Hose Bed Cover, Vinyl	1
			Color, Vinyl Cover - a) red	
210	0611509		Running Boards, Flip Out, PUC	1
211	0685334		Tailboard, 12" Deep, Full Width, PUC/HDRP	1
212	0690029		Wall, Rear, Body Material, PUC, PUC Tanker, PRM, HDRP	1
213	0003531		Tow Bar, Under Tailboard	1
214	0656764		Construction, Compt, Alum, Pumper, PUC	1
215	0503804		LS 189" Rollup, (1) 62" Fwd, (1) 52" Rr, Full Height & Depth Front & Rear, PUC	1
			Width, PUC Pump Operators Panel Partition - 2.5"	
216	0503803		RS 189" Rollup, (1) 62" Fwd, (1) 52" Rr, Full Height & Depth Front & Rear, PUC	1
217	0692733		Doors, Rollup, Gortite, Side Compartments	6
			Qty, Door Accessory - 06	
			Color, Roll-up Door, Gortite - Painted to Match Lower Body	
			Latch, Roll-up Door, Gortite - Non-Locking Liftbar	
218	0599445		Compt, Rear, Rollup, 33.50" FF, w/Tailboard, PUC/HDRP	1
219	0692743		Door, Gortite, Rollup, Rear Compartment, PUC	1
			Color, Roll-up Door, Gortite - Satin finish	
			Latch, Roll-up Door, Gortite - Non-Locking Liftbar	
220	0637421		Trim, Rollup Door, Painted Door Color, Gortite	8
			Location, Door Accessory - all side compartment doors including crosslays	
			Qty, - 08	
221	0616670		Lights, Compt, Pierce LED, Dual Light Strips, Each Side of Door, Pumper/Tanker	7
			Qty, - 07	
			Location, Compartment Lights - All Body Compts	
222	0515679		189" Hatch, (2) Lift-up, 21" Wide, Both Sides, PUC/HDRP	1
			Size, Hatch Compt, Height - 22.00"	
			Trim, Body/Hatch Compt Seam, Horizontal, Pair - Molding	
			Trim, Body/Hatch Compt Seam, Vertical, Pair, PUC - Painted Extrusion	
223	0733406		Handrails, Hatch Step Area, (1) Curved & (1) Straight	1
224	0688124		Lights, Hatch Compt, LED Strip Light, 189", Both Sides	1
225	0687145		Shelf Tracks, Recessed, PUC/3rd Generation	1
226	0600350		Shelves, Adj, 500 lb Capacity, Full Width/Depth, Predefined Locations	2
			Qty, Shelf - 02	
			Material Finish, Shelf - Painted - Spatter Gray	
			Location, Shelves/Trays, Predefined - LS1-Centered and B1-Upper Third	
227	0709690		Tray, 250 lb Slide-out, 2" Sides - Adj. Height, Predefined Locations	2
			Qty, Tray (slide-out) - 02	
			Location, Shelves/Trays, Predefined - RS3-Centered and RS3-Lower Third	
			Material Finish, Tray - Painted - Spatter Gray	
228	0709692		Tray, 215 lb, Tilt/Slide-Out, 30 Deg, Adj, Predefined Locations	3
			Qty, Tray (slide-out) - 03	
			Location, Shelves/Trays, Predefined - RS1-Centered, RS2-Centered and RS3-Upper Third	
			Material Finish, Tray - Painted - Spatter Gray	
229	0647091		Tray, Floor Mounted, Slide-Out, 500lb, 2.00" Sides	1
			Qty, - 01	
			Location, Tray Slide-Out, Floor Mounted - LS1	
			Material Finish, Tray - Painted - Spatter Gray	
230	0544614		Toolboard, Swing-out, Alum, .188", Peg Board, 3G	1
			Qty - 1	
			Location, Pivot - Front	
			Mounting, Toolboard - Adjustable Frt-back	

Line	Option	Type	Option Description	Qty
230			Hole Diameter, Pegboard/Toolboard - .203" diameter Finish, Pegboard/Toolboard - Painted - Spatter Gray Location, Toolboard - LS2	
231	0709346		Toolboard, Slide-out, Alum, .188", Peg Board, Predefined Locations Qty, - 04 Mounting, Toolboard - Adjustable side-side Hole Diameter, Pegboard/Toolboard - .203" diameter Finish, Pegboard/Toolboard - Painted - Spatter Gray Location, Partition/Toolboard, Predefined - RS1 - 8.00" From Forward Door Frame, RS1- 16.00" From Forward Door Frame, RS3 - 8.00" From Forward Door Frame and RS3- 16.00" From Forward Door Frame	4
232	0685317		Bracket, SCBA, Zico, KD-UH-6-SF, Mounted Location - LS3 on rear wall up high Qty, Comp. Accessory - 01	1
233	0755527		Pegboard, Back Wall Mounted, 3/16" Alum, Standard Depth Upper Qty, Comp. Accessory - 02 Hole Diameter, Pegboard/Toolboard - .203" diameter Finish, Pegboard/Toolboard - Painted - Spatter Gray Location, Compartment, Predefined - LS2 and RS2	2
234	0063064		Rub Rail, Aluminum Extruded, Side of Body, 3rd Gen Body	1
235	0515441		Fender Crowns, Rear, S/S, W/Removable Fender Liner, Pumper, 3rd Gen Material Finish, Fender Liner - Brushed Stainless	1
236	0004069		Hose, Hard Suction, 6.0", 10.0', Clear Corrugated Qty, Hard Suction Hose - 2	2
237	0611033		Compt, HSH, (1), In Upper Body, PUC/HDRP Qty, - 02 Location, Hose Trough/Compartment - I) one each side Door, Material & Finish, Storage - Smooth Aluminum Latch, Door, Storage - Southco C2 Chrome Raised Hinge Location - Outboard Trough, Material - Aluminum	2
238	0527021		Handrails Located @ Front Body	1
239	0664688		Handrails, Rear, PUC/HDRP	1
240	0000941		No Rear Hose Bed Handrail Required	1
241	0622393		Compt, Air Pack in Fender Panel Location, Bracket/comp. - driver's side in front of rear wheels and passenger's side in front and behind rear wheels Qty, - 03 Door Finish, Fender Compt - Painted Latch, Air Bottle Compt - Southco C2 Chrome Raised Insert, Air Bottle Compt - Dura-Surf Lining	3
242	0657651		Compt, Air Bottle, Double, Full Width Door, Fender Panel Qty, Air Bottle Comp - 1 Door Finish, Fender Compt - Painted Location, Fender Compt - Double - LS Rear Latch, Air Bottle Compt - Southco C2 Chrome Raised Insert, Air Bottle Compt - W-Shaped Insert	1
243	0024210		Storage Bin, Air Bottle Location, Bracket/comp. - LS3 on the floor Qty, Bottle Bin - 02	2
244	0521500		Strap, Air Bottle Compartment, Each Location, Bracket/comp. - LS3 floor bottle storage Qty, - 02	2
245	0004225		Ladder, 24' Duo-Safety 900A 2-Section	1
246	0004230		Ladder, 14' Duo-Safety 775A Roof	1
247	0638382		Rack, Ladders, LS Full Depth Body, PUC/HDRP Door, Material & Finish, Ladder Storage - smooth aluminum Latch, Door Ladder Storage - D-Handle latch Hinge Location - Outboard	1
248	0733387		Ladder, 10' Duo-Safety Folding 585A	1
249	0732966		Trough, Folding Ladder, Hard Suction Hose Compt Location, Left Side, Right Side - Right Side	1
250	0789534		Pike Pole, 8' DUO Safety, Fiberglass Qty, Pike Poles - 1	1

Line	Option	Type	Option Description	Qty
251	0732989		Tube, Pike Pole 8' or Longer, Hard Suction Hose Compt	1
			Qty, Pike Poles - 1	
			Location, Left Side, Right Side - Left Side	
			Material/Finish, Tube, Pike Pole - Aluminum	
			Width, Notch, Pike Pole Tube - .75", Standard Notch	
252	0733370		Pike Pole, 6' DUO Safety, Fiberglass	1
			Qty, Pike Poles - 1	
253	0733000		Tube, Pike Pole 6', Hard Suction Hose Compt	1
			Qty, Pike Poles - 1	
			Location, Left Side, Right Side - Left Side	
			Material/Finish, Tube, Pike Pole - Aluminum	
			Width, Notch, Pike Pole Tube - .75", Standard Notch	
254	0521734		No Steps Required, Front Of Body, PUC	1
255	0794171		Ladder, Top Access, Alum, Rear, PUC, Opposite Ladder Storage	1
			Do Not Move Truck Indicator - DNMT indicator	
256	0515692		Pump Operators Panel, 31", Control Zone, PUC	1
257	0520016		Not Required, Pumphouse Structure, PUC	1
258	0771274		Cargo Compt, Floor Lowered, Rearward Section Over Pump, For OAH, PUC	1
259	0515695		Pump, Pierce, 1500 GPM, Single Stage, PUC	1
260	0515822		Seal, Mechanical, Silicon Carbide, PUC Pump	1
261	0515705		Gear Case, Pierce Pump, REPTO-Clutch Drive	1
262	0721196		Pumping Mode, Pump and Roll/Stationary, Basic, MUX, PUC	1
263	0515829		Pump Shift, Sure-Shift	1
264	0515833		Transmission Lock-up, Not Req'd, Park to Neutral, Pump, PUC	1
265	0515835		Auxiliary Cooling System, PUC	1
266	0014486		Not Required, Transfer Valve, Stage Pump	1
267	0746501		Valve, Relief Intake, Elkhart	1
			Qty - 1	
			Pressure Setting - 125 psig	
			Intake Relief Valve Control - Behind Right Side Pump Panel	
268	0724463		Controller, Pressure, Pierce LCD, PUC	1
			Pressure Governor Throttle Control - Clockwise	
			Pressure Governor Default Mode - RPM Setting	
269	0072153		Primer, Trident, Air Prime, Air Operated	1
270	0780359		Manuals, Pump, (2) Total, Electronic Copies, Pierce PUC Pump	1
271	0602496		Plumbing, Stainless Steel and Hose, Single Stage Pump, PUC	1
272	0795135		Plumbing, Stainless Steel, w/Foam System	1
273	0517852		Inlets, 6.00" - 1500 GPM, Pierce PUC Pump	1
274	0014650		Pump Suction Tube(s), Short, All	1
275	0648369		Valve, Pierce BFV, w/Relief, RS Main Inlet, 6", Electric, Manual Override, PUC	1
276	0648368		Valve, Pierce BFV, w/Relief, LS Main Inlet, 6", Electric, Manual Override, PUC	1
277	0004646		Cap, Main Pump Inlet, Long Handle, NST, VLH	1
278	0084610		Valves, Akron 8000 series- All	1
279	0520002		Valve, Inlet(s) Recessed, Side Cntrl, PUC	1
			Qty, Inlets - 1	
280	0004700		Control, Inlet, at Valve	1
281	0004660		Inlet (1), Left Side, 2.50"	1
282	0723551		Inlet (1), Right Side, 2.50"	1
283	0521137		Anode, Zinc, Pair, Pump Inlets, PUC	1
284	0092569		No Rear Inlet (Large Dia) Requested	1
285	0064116		No Rear Inlet Actuation Required	1
286	0092696		Not Required, Cap, Rear Inlet	1
287	0009648		No Rear Intake Relief Valve Required on Rear Inlet	1
288	0092568		No Rear Auxiliary Inlet Requested	1
289	0723049		Valve, .75" Bleeder, Aux. Side Inlet, "T" Swing Handle	1
290	0520277		Tank to Pump, (1) 3.00" Valve, 4.00" Plumbing, PUC	1
291	0595508		Outlet, Tank Fill, 1.50", PUC	1
292	0766941		Control, Outlets, Swing Handle, Elec Right Outlets Akron 9335 w/Press Disp, PUC	1
293	0516755		Outlet, Left Side, 2.50" (2), PUC	1
294	0055095		Not Required, Elbow, Left Side Outlets, 2.50"	1
295	0766761		Outlet, Right Side, 2.50", (1), Electric Akron 9335 Controller, PUC	1
			Qty, Discharges - 01	

Line	Option	Type	Option Description	Qty
296	0021134		Not Required, Elbow, Right Side Outlets	1
297	0766992		Outlet, Right Side, 4" w/4" Valve, Akron 9335 Elec Controller, PUC	1
298	0699320		Adapter, 4.00" FNST x 5.00" Storz, w/Cap and Chain, PUC	1
			Qty, - 1	
299	0649939		Outlet, Front, 1.50" w/2" Plumbing	1
			Fitting, Outlet - 1.50" NST with 90 degree swivel	
			Drain, Front Outlet - Automatic	
			Location, Front, Single - in center bumper tray	
300	0092575		Not Required, Outlet, Rear	1
301	0045099		Not Required, Elbow, Rear Outlets	1
302	0537394		Not Required, Outlet, Rear, Additional, PUC	1
303	0537395		Not Required, Elbow, Rear Outlets, Additional	1
304	0752097		Caps/Plugs for 1.00" to 3.00" Discharges/Inlets, Chain	1
305	0723042		Valve, 0.75" Bleeder, Discharges, "T" Swing Handle	1
306	0528826		Outlet, 3.00" Deluge W/2.5" Valve, w/TFT RC3 Elect Extend-a-Gun riser, PUC	1
307	0739657		Monitor, TFT Hurricane XFIH-E, Electric, Panel and Wireless Control	1
			Monitor Finish - Painted by OEM	
308	0054847		Nozzle, TFT Master Stream M-ER, 1250 GPM, Electric	1
309	0075261		Deluge Mount, TFT Hurricane For RC3 Extend-A-Gun Only	1
310	0750982		Crosslay Module, Full Width, Roll Up Doors, PUC	1
311	0749510		Doors, Crosslay, Roll-up Gortite, Each End, Full Height, PUC	1
			Color, Roll-up Door, Gortite - Painted to Match Lower Body	
			Latch, Roll-up Door, Gortite - Non-Locking Liftbar	
			Door Guard - Drip Pan Required	
312	0747660		Lights, Crosslay Compt, Forward LED, 2Lts	1
313	0750916		Crosslays, (2) 1.50", W/Poly Trays, PUC	1
			Crosslay/Deadlay/Speedlay Capacity 1 - 200' of 1.75" double jacket hose	
314	0750900		Crosslay, (1) 2.50", W/Poly Trays, PUC	1
			Crosslay/Deadlay/Speedlay Capacity 1 - 200' of 2.50" double jacket hose	
315	0749403		Mounting, Stokes, Upper Crosslay Module, Strap, PUC	1
			Size, Stokes Basket - 84.5"L x 24"W x 7.5"H	
316	0787795		MODIFICATION, Increase Wheelbase 3.50"	1
317	0599695	SP	Reel, Dry, Hose Storage, No Plumbing, PUC/HDRP	1
			Fill in Blank - 800 to 1,000' of 1.5" single jacket wildland hose	
			Location - B1 rear compartment	
318	0005279		Switch, Reel Rewind - One at Reel	1
319	0015300		No booster Hose Required (1) Reel	1
320	0005245		Capacity, Hose Reel, Special	1
			Capacity, Reel - 800 to 1,000' of 1.5" single jacket flat wildland hose	
321	0007428		Nozzle for Booster Reel Not Req'd	1
322	0676021		Foam Sys, Husky 3, Single Agent, PUC, Multi Select Feature	1
			Discharge, Foam Locations - Crosslay Lower Rear, Crosslay Lower	
			Front, Crosslay Upper Rear and Front Bumper Center	
323	0012126		Not Required, CAF Compressor	1
324	0592527		Refill, Foam Tank, Integral, Husky 3	1
325	0031896		Demonstration, Foam System, Dealer Provided	1
326	0045465		Not Required, Foam Tanks	1
327	0091110		Not Required, Foam Tank Drain	1
328	0091079		Not Required, Foam Tank #2	1
329	0091112		Not Required, Foam Tank #2 Drain	1
330	0738072		Approval Dwg, Pump Panel(s), Not Required	1
331	0032479		Pump Panel Configuration, Control Zone	1
332	0516975		Material, Pump Panels, Operators Brushed Stainless, Sides Brushed Stainless, PUC	1
333	0516978		Pump and Plumbing Access, Simple Tilt Service, PUC	1
334	0618458		Light, Pump Compt, WIn 3SC0CDCR LED White, PUC	1
			Qty, - 01	
335	0516983		Gauges, Engine, Included With Pierce Pressure Controller, PUC	1
336	0005601		Throttle, Engine, Incl'd w/Press Controller	1
337	0739224		Indicator Light @ Pump Panel, Throttle Ready, Incl w/Pressure Gov/Throttle, Green	1
338	0549333		Indicators, Engine, Included with Pressure Controller	1
339	0511078		Gauges, 4.00" Master, Class 1, 30"-0-600psi	1

Line	Option	Type	Option Description	Qty
340	0511100		Gauge, 2.00" Pressure, Class 1, 30"-0-400psi	1
341	0756688		Gauge, Water Level, Pierce, In pressure Controller, w/Mini Slave, PUC, Lt Driver	1
			Activation, Water Level G - pg) pump in gear	
342	0750438		Water Level Gauge, WIn PSTANK2, LED 1-Light, 4-Level	2
			Qty, - 02	
			Activation, Water Level G - pg) pump in gear	
			Location, Water Level Gauge, Multi-Select - Each Side Custom Cab	
			Color, Trim - Chrome Trim	
343	0517012		Gauge, Foam Level, Pierce, PUC, PP and Mini in Cab	1
			Activation, Foam Level Gauge - pump in gear	
344	0653081		Light, Pump Operator & Panel, Side Ctrl, PUC, 60354C LED Cab & LED OH Chr Cvr	1
345	0606697		Air Horns, (2) Grover, In Bumper	1
346	0606834		Location, Air Horns, Bumper, Each Side, Outside Frame, Inboard (Pos #2 & #6)	1
347	0757092		Control, Air Horn, Multi Select	1
348	0757076		Control, Air Horn, Lanyard, RS	1
			Lanyard - Nylon Rope	
349	0757077		Control, Air Horn, Lanyard, LS	1
			Lanyard - Nylon Rope	
350	0525667		Siren, WIn 295SLSA1, 100 or 200 Watt	1
351	0510206		Location, Elec Siren, Recessed Overhead In Console	1
			Location, Elec Siren - Overhead, DS Center Sw Pnl	
352	0076156		Control, Elec Siren, Head Only	1
353	0601306		Speaker, (1) WIn, SA315P, w/Pierce Polished Stainless Steel Grille, 100 watt	1
			Connection, Speaker - siren head	
354	0601551		Location, Speaker, Frt Bumper, Recessed, Right Side, Outside Frame, Outbrd(Pos 1)	1
355	0895310		Siren, Federal Q2B	1
			Finish, Q2B Siren - Chrome	
356	0665593		Siren, Mechanical, Recessed In Bumper, Special Recessing Depth, EF Grille	1
			Location, Siren, Mech - a) Left	
357	0748305		Control, Mech Siren, Multi Select	1
358	0748282		Control Mech Siren, Ft Sw LS	1
359	0748281		Control Mech Siren, Ft Sw RS	1
360	0736164		Sw, Siren Brake, Momentary, LS Overhead Sw Pnl	1
361	0740391		Sw, Siren Brake, Momentary Chrome Push Button, RS	1
362	0746353		Not Required, Warning Lights Intensity	1
363	0896453	SP	Lightbar, WIn, Freedom IV-V, 72", RAlYRBRBRW_Opt_WBRBRRAlyR	1
			Opticom Priority - b) High	
			Opticom Activation - E-Master	
			Momentary Opticom Activation - No Activation	
			Filter, Whl Freedom Ltbrs - No Filters	
364	0641779		Bracket, Lightbar, Forward Offset, FR Raised Roof Cab	1
365	0016380		No Additional Lights Req'd, Side Zone Upper	1
366	0736932		Lights, Front Zone, WIn C6L** C6L** C6L** C6L**, Q-Bzl, 4lts	1
			Color, Lens, LED's - Clear	
			Color, Lt DS Frnt Outside - Left Red	
			Color, Lt PS Frnt Outside - Right Red	
			Color, Lt DS Front Inside - Left Red	
			Color, Lt PS Front Inside - Right Red	
			Color, Q Bezel and Trim - Polished Chrome	
367	0653937		Flasher, Headlight Alternating	1
			Headlt flash deactivation - a)w/high beam	
368	0778309		Lights, Side Zone Lower, WIn C6L**, 6lts	1
			Location, Lights Front Side - b)each side bumper	
			Color, Lens, LED's - Clear	
			Location, Lights Mid Side - Over Front Wheels	
			Location, Lights Rear Side - Over Rear Wheels	
			Color, Lt Side Front, DS - Red	
			Color, Lt Side Front, PS - Red	
			Color, Lt Side Mid DS - Red	
			Color, Lt Side Mid PS - Red	
			Color, Lt Side Rear PS - Red	
			Color, Lt Side Rear DS - Red	

Line	Option	Type	Option Description	Qty
369	0776274		Lights, Side, WIn C9L** LED 1st Location, Lights - front of hatch compartments on both sides Qty, - 02 Color, Lights, Warning - Red Flashing Color, Lens, LED's - Clear	2
370	0773305		Lights, Rear Zone Lower, WIn C6L** LED Color, Lens, LED's - Clear Color, Lt DS Rear - r) DS Rear Lt Red Color, Lt PS Rear - r) PS Rear Lt Red	1
371	0730266		Lights, Rear/Side Up Zone, WIn C9L** LED 4lts Color, Lens, LED's - c)clear Color, Lt, Side Rear Upper DS - Side Rear Upper red Color, Lt, Side Rear Upper PS - Side Rear Upper red Color, Lt, Rear Upper DS - DS Rear Upper red Color, Lt, Rear Upper PS - PS Upper Rear red Color, Trim - Chrome Trim	1
372	0006551		Not Required, Lights, Rear Upper Zone Blocking	1
373	0590000		No Hose Bed Warn Light Brackets Req'd, Lights Mtd on Hatch/Body Compts, PUC	1
374	0791528		Light, Traffic Directing, WIn TAL65, 36.00" Long, TACTL5 Activation, Traffic Dir L - Not Connected	1
375	0551728		Location, Traf Dir Lt, Recessed with S/S Trim	1
376	0530282		Location, Traf Dir Lt Controller, Overhead Switch Panel DS Right End	1
377	0784441		Inverter, Xantrex PROsine 806-1802, 1800W 120V AC 1350W Location, Inverter - on rear cab wall	1
378	0898217	SP	Light Twr, CL KL408D-W1, WIn PCH1, 12 Volt DC LED, Cld 6lts Back Light or Strobe Light - Back Light	1
379	0629874		Location, Light Tower, Cab Roof, Saber FR/Enforcer	1
380	0664792		Controllers, Light Tower, Command Light, Panel Mount with Handheld Wireless	1
381	0664791		Location, Light Tower Controller, Driver's Side Front Body Compartment	1
382	0781579		Receptacle, 15/20A 120V 3-Pr 3-Wr, NEMA 5-20R SB Dup, 1st, Interior Cab Qty, - 02 Location 1 - one in each EMS compartment AC Power Source - Shoreline to Inverter Internal Transfer Sw Cover, Receptacle - Interior SS Wall Plate(s)	2
383	0779722		Receptacle, 15/20A 120V 3-Pr 3-Wr, NEMA 5-20R SB Dup, 1st, Interior Body Qty, - 02 Location 1 - LS1 compartment 26" off the floor to the bottom of recept on forward side wall close to the rear wall and in RS1 26" off the floor to the bottom of recept on forward side wall close to the rear wall AC Power Source - Shoreline to Inverter Internal Transfer Sw Cover, Receptacle - White Recp and SS Wall Plate	2
384	0519934		Not Required, Brand, Hydraulic Tool System	1
385	0649753		Not Required, PTO Driven Hydraulic Tool System	1
386	0007150		Bag of Nuts and Bolts Qty, Bag Nuts and Bolts - 1	1
387	0602516		NFPA Required Loose Equipment, Pumper, NFPA 2016, Provided by Fire Department	1
388	0519913		Not Required, Soft Suction Hose	1
389	0602390		Strainer, Provided by Fire Department, Pumper NFPA 2016 Classification	1
390	0602538		Extinguisher, Dry Chemical, Pumper NFPA 2016 Class, Provided by Fire Department	1
391	0602360		Extinguisher, 2.5 Gal. Pressurized Water, Pumper NFPA 2016, Provided by Fire Dept	1
392	0602679		Axe, Flathead, Pumper NFPA 2016 Classification, Provided by Fire Department	1
393	0602667		Axe, Pickhead, Pumper NFPA 2016 Classification, Provided by Fire Department	1
394	0741569		Paint Process / Environmental Requirements, Appleton	1
395	0709566		Paint, Two-Tone Color, Enforcer Paint Color, Upper Area, Predefined - #10 White Shield, Cab - Standard Shield Paint Color, Lower Area, Predefined - #90 Red Paint Break, Cab - Standard Two-Tone Cab Break	1
396	0709833		Paint, Two-Tone Color, Body Paint Break, Body - Body Seam/Catwalk Paint, Lower Body - Match Cab Lower	1

Line	Option	Type	Option Description	Qty
396			Paint, Upper Body - Match Cab Upper	
397	0646897		Paint Chassis Frame Assy, E-Coat, Standard	1
			Paint Color, Frame Assembly, Predefined - Standard Black	
398	0693797		No Paint Required, Aluminum Front Wheels	1
399	0693792		No Paint Required, Aluminum Rear Wheels	1
400	0733739		Paint, Axle Hubs	1
			Paint, Axle Hub - Lower Job Color	
401	0581434		Transit Coating, Carwell, Corrosion Protection, Including Underside	1
402	0007230		Compartment, Painted, Spatter Gray	1
403	0544129		Reflective Band, 1"-6"-1"	1
			Color, Reflect Band - A - a) white	
			Color, Reflect Band - B - l) white	
			Color, Reflect Band - C - w) white	
404	0007356		Reflective across Cab Face	1
405	0593732		Stripe, Chevron, Rear, Diamond Grade, Pumper, PUC	1
			Color, Rear Chevron DG - fluorescent yellow green	
406	0082587		Folded Ribbon in Reflective Stripe, Pair With Air Brushing	1
			Location - located on the LS3 & RS3 roll-up doors.	
			Qty, - 1	
407	0515348		Stripe, Black Outline, Scotchlite on Reflective Band	3
			Qty, - 03	
408	0583278		Stripe, Chevron, Diamond Grade, Rear Access Doors	1
			Color, Rear Chevron DG - fluorescent yellow green	
409	0065687		Stripe, Reflective, Cab Doors Interior	1
			Color, Reflective - e) black	
410	0679789		Stripe, Vinyl, Across Cab Face	1
411	0027372		Lettering Specifications, (GOLD STAR Process)	1
412	0686432		Lettering, Gold Leaf, 3.00", Each	8
			Qty, Lettering - 08	
			Outline, Lettering - Outline and Shade	
413	0686000		Lettering, Reflective, 8.00", (21-40)	1
			Outline, Lettering - Outline and Shade	
414	0686078		Lettering, Reflective, 3.00", (61-80)	1
			Outline, Lettering - Outline and Shade	
415	0686027		Lettering, Reflective, 4.00", (21-40)	1
			Outline, Lettering - Outline and Shade	
416	0029814		Emblem, Maltese Cross, Gold Leaf, 18"-20", Pair	1
			Qty, - 01	
			Location, Emblem - cab doors	
417	0666414		Emblem, Freedom Flag, Each	2
			Qty, - 02	
			Location, Emblem - behind crew cab doors	
			Size, Flag - 9" - 11"	
418	0769753		Emblem, American Flag Painted on Cab Grille, All Custom Chassis	1
419	0772003		Manual, Fire Apparatus Parts, USB Flash Drive, Custom	1
			Qty, - 01	
420	0772037		Manual, Chassis Service, USB Flash Drive, Custom	1
			Qty, - 01	
421	0773381		Manual, Chassis Operation, (1) USB Flash Drive, Custom	1
422	0030008		Warranty, Basic, 1 Year, Apparatus, WA0008	1
423	0735523		Warranty, Engine, Paccar MX13, 5 Year	1
424	0684952		Warranty, Steering Gear, TRW Ross TAS, 1 Year WA0202	1
425	0596017		Warranty, Frame, 50 Year, Custom Chassis, WA0013	1
426	0610471		Warranty, Axle, Eaton/Dana, 5 Year/100,000 Mile, Parts and Labor	1
427	0610485		Warranty, Axle, Eaton/Dana, 5 Year/100,000 Mile, Parts and Labor	1
428	0652758		Warranty, ABS Brake System, 3 Year, Meritor Wabco, WA0232	1
429	0019914		Warranty, Structure, 10 Year, Custom Cab, WA0012	1
430	0744240		Warranty, Paint, 10 Year, Cab, Pro-Rate, WA0055	1
431	0524627		Warranty, Electronics, 5 Year, MUX, WA0014	1
432	0695416		Warranty, Pierce Camera System, WA0188	1
433	0647720		Warranty, Pierce LED Strip Lights, WA0203	1
434	0046369		Warranty, 5-year EVS Transmission, Standard Custom, WA0187	1

Line	Option	Type	Option Description	Qty
435	0685945		Warranty, Transmission Cooler, WA0216	1
436	0688798		Warranty, Water Tank, Lifetime, UPF, Poly Tank, WA0195	1
437	0596025		Warranty, Structure, 10 Year, Body, WA0009	1
438	0693127		Warranty, Gortite, Roll-up Door, 6 Year, WA0190	1
439	0516693		Warranty, Pump, Pierce, PUC, 6 Year Parts, 1 Year Labor, WA0039	1
440	0648675		Warranty, 10 Year S/S Pumbing, WA0035	1
441	0657990		Warranty, Foam System, Husky 3, WA0231	1
442	0595820		Warranty, Paint, 10 Year, Body, Pro-Rate, WA0057	1
443	0595421		Warranty, Goldstar, 3 Year, Apparatus, WA0018	1
444	0683627		Certification, Vehicle Stability, CD0156	1
445	0735686		Certification, Engine Installation, Enf, Paccar MX13, 2021	1
446	0686786		Certification, Power Steering, CD0098	1
447	0631980		Certification, Cab Integrity, Saber FR/Enforcer, CD0130	1
448	0631973		Certification, Cab Door Durability, Saber FR/Enforcer, CD0137	1
449	0631978		Certification, Windshield Wiper Durability, Saber FR/Enforcer, CD0132	1
450	0556828		Certification, Electric Window, Not Available	1
451	0631977		Certification, Seat Belt Anchors and Mounting, Saber FR/Enforcer, CD0134	1
452	0735949		Certification, Cab HVAC System Performance, SFR/Enf, CD0165/CD0167/CD0174/CD0175	1
453	0545073		Amp Draw Report, NFPA Current Edition	1
454	0002758		Amp Draw, NFPA/ULC Radio Allowance	1
455	0799248		Appleton/Florida BTO	1
456	0000048		PUMPER/TANKER, 3rd Gen	1
457	0000012		PIERCE CHASSIS	1
458	0735525		PACCAR MX13 ENGINE	1
459	0046396		EVS 4000 Series TRANSMISSION	1
460	0520324		PIERCE PUMP, PUC	1
461	0020009		POLY TANK	1
462	0028048		FOAM SYSTEM	1
463	0020006		SIDE CONTROL	1
464	0020007		AKRON VALVES	1
465	0020015		ABS SYSTEM	1
466	0658751		PUMPER BASE	1



Electrical Analysis

12/31/2021

Bid #: 1036

Job #:

Desc: Glenwood Springs Pumper

Sales Rep: Kerber, Wayne

Customer: Glenwood Springs Fire Department

Organization: Front Range Fire Apparatus, Ltd

Option	Description	Type*	Minimum Load	Intermittent Load	Total Connected
0001244	High Idle w/Electronic Engine, Custom		0.00	1.20	0.00
0072153	Primer, Trident, Air Prime, Air Operated		0.00	0.01	0.00
0079166	Batteries, (4) Exide Grp 31, 950 CCA ea, Threaded Stud		0.00	3.00	0.00
0085910	Lights, Backup Included in Signal Cluster		0.00	4.20	0.00
0515679	189" Hatch, (2) Lift-up, 21" Wide, Both Sides, PUC/HDRP		0.00	3.25	3.25
0517012	Gauge, Foam Level, Pierce, PUC, PP and Mini in Cab		0.00	0.00	1.23
0543751	Light, Do Not Move Apparatus		0.00	0.80	0.00
0549333	Indicators, Engine, Included with Pressure Controller		0.00	0.35	0.00
0583938	Lights, Engine Compt, Custom, Auto Sw, Wln 3SC0CDCR, 3" LED,		0.00	0.30	0.00
0589905	Alarm, Back-up Warning, PRECO 1040		0.00	0.50	0.00
0593760	ESC/ABS/ATC Wabco Brake System, Single Rear Axle, 2010		0.00	6.00	0.00
0599695	Reel, Dry, Hose Storage, No Plumbing, PUC/HDRP		0.00	40.00	0.00
0618458	Light, Pump Compt, Wln 3SC0CDCR LED White, PUC		0.00	0.36	0.00
0639727	Cab Lift, Elec/Hyd, Manual Override, Saber FR/Enforcer		0.00	180.00	0.00
0653519	Camera, Pierce, Driver Mux, R, RS, LS Cameras		0.00	1.20	0.00
0653937	Flasher, Headlight Alternating		0.00	0.00	0.08
0676021	Foam Sys, Husky 3, Single Agent, PUC, Multi Select Feature		0.00	55.00	0.00
0689748	Handlts, (4) Streamlight, E-Spot FireBox, 45865 LED, 12v, Orange,		0.00	0.50	0.00
0698805	Bracket, Johnny Ray, Heavy Duty Swivel, 14 lb. Rating		0.00	0.00	0.00
0735687	Engine Brake, Fully Integrated, Paccar MX13 Engine		0.00	0.42	0.00
0745192	Intercom, David Clark, 5-Pos, 3-Radio, (D,O,RPTT), 2obC, (P, Radio		0.00	0.00	0.50
0774017	Lights, Wln, P*H1* Pioneer, 12 VDC, 3rd		0.00	0.00	13.00
0774334	Lights, Wln, P*H1* Pioneer, 12 VDC, 2nd		0.00	0.00	6.50
0774336	Lights, Wln, P*H1* Pioneer, 12 VDC, 1st		0.00	0.00	6.50
0774948	Lights, Wln, P*H1* Pioneer, 12 VDC, 2nd		0.00	0.00	6.50
0775524	Lights, Wln, P*H1* Pioneer, 12 VDC, 1st		0.00	0.00	6.50
0776274	Lights, Side, Wln C9L** LED 1st		0.00	3.00	2.00
0792512	Light, Roof Mt, HiViz, FT-B-X-72-*, Cnt Feature, Mux		0.00	0.00	23.84
0895310	Siren, Federal Q2B		0.00	100.00	0.00
0898217	Light Twr, CL KL408D-W1, Wln PCH1, 12 Volt DC LED, Cld 6lts		0.00	0.00	46.87
0898549	Cab Air Filtration, TFT CrewProtect, 12v DC, Loc, CARE		0.00	0.00	1.50
0548004	Wiring, Spare, 15 A 12V DC 1st	LM	0.00	0.00	45.00
0548006	Wiring, Spare, 15 A 12V DC 2nd	LM	0.00	0.00	15.00
0548007	Wiring, Spare, 15 A 12V DC 3rd	LM	0.00	0.00	15.00
0585914	Wiring, Spare, 20 A 12V DC, 6 Circuit Fuse Block, Blue Sea 5025 1st	LM	0.00	0.00	20.00
0610968	Wiring, Spare, 2.0 A 12V DC, USB Termination Blue Sea 1016 1st	LM	0.00	0.00	5.00
0636439	Wiring, Spare, 37.5 A 12V DC, Cust Install Radio, 30A Bat Dir, 7.5A	LM	0.00	0.00	37.50
0697030	Mirrors, Ramco, 6001PCHR, Heated/Remote, w/Heated/Remote	LM	0.00	0.00	8.00
0722696	HVAC, Enforcer, CARE	LM	0.00	0.00	100.00
0002758	Amp Draw, NFPA/ULC Radio Allowance	NFPA	5.00	0.00	0.00
0088869	Lights, Clearance/Marker/ID, Rear, Truck-Lite 26250R LED 7Lts	NFPA	0.50	0.00	0.00
0092582	Load Manager/Sequencer, MUX	NFPA	0.56	0.56	0.00
0503803	RS 189" Rollup, (1) 62" Fwd, (1) 52" Rr, Full Height & Depth Front &	NFPA	6.00	0.00	6.00
0503804	LS 189" Rollup, (1) 62" Fwd, (1) 52" Rr, Full Height & Depth Front &	NFPA	6.00	0.00	6.00
0516983	Gauges, Engine, Included With Pierce Pressure Controller, PUC	NFPA	0.30	0.00	0.00
0517025	Lights, Tail, Wrap-around, Stop/Tail, Turn & Backup LED, Tri-Cluster	NFPA	2.60	7.80	0.00
0525667	Siren, Wln 295SLSA1, 100 or 200 Watt	NFPA	1.56	14.06	0.00
0557322	Lights, Step, P25 at Rear Tailboard, PUC, 4lts Perm Lts	NFPA	0.50	0.00	0.00
0568012	Air Dryer, Wabco System Saver 1200, Heater, 2010	NFPA	7.81	0.00	0.00
0599445	Compt, Rear, Rollup, 33.50" FF, w/Tailboard, PUC/HDRP	NFPA	0.90	0.00	0.90

* UDMC = User Defined Mission Critical, LM = User Defined Load Managed, S = Electrical Amperage Supply



Electrical Analysis

12/31/2021

Bid #: 1036

Job #:

Desc: Glenwood Springs Pumper

Sales Rep: Kerber, Wayne

Customer: Glenwood Springs Fire Department

Organization: Front Range Fire Apparatus, Ltd

Option	Description	Type*	Minimum Load	Intermittent Load	Total Connected
0603606	Cab Instruments, Ivory Gauges, Chrome Bezels, Enf MUX	NFPA	1.26	0.00	0.00
0615386	Vehicle Information Center, 7" Color Display, Touchscreen, MUX	NFPA	1.20	0.00	0.00
0617901	Lights, Perimeter Pump House, TecNiq T10-LC00-1 15" LED 2lts	NFPA	0.80	0.00	0.00
0620054	Light, Directional/Marker, Intermediate, Weldon 9186-8580-29 LED 2lts	NFPA	0.10	0.90	0.00
0625210	Lights, Directional, Cab Front Side, Truck-Lite 19036Y LED, AXT/Enf	NFPA	0.12	0.00	0.00
0625646	Cab, Enforcer, 7010, PUC	NFPA	6.80	10.20	0.00
0625953	Light, Directional, Wln 600 Cmb, Cab Crn, Wrp Bzl Out HD Lts, Enf,	NFPA	0.70	0.70	0.00
0626579	Lights, Perimeter Body, TecNiq T10-LC00-1 15" LED 2lts, Rear Step	NFPA	0.80	0.00	0.00
0626588	Lights, Perimeter Cab, TecNiq T10-LC00-1 15" LED 4Dr	NFPA	1.60	0.00	0.00
0642582	Trans, Allison 5th Gen, 4000 EVS P, w/Prognostics,	NFPA	2.00	2.00	0.00
0644179	Wiper Control, 2-Speed with Intermittent, Saber FR/Enforcer	NFPA	1.20	4.80	0.00
0647647	Lights, Dome, FRP Dual LED 4 Lts	NFPA	0.80	0.80	0.00
0653081	Light, Pump Operator & Panel, Side Ctrl, PUC, 60354C LED Cab &	NFPA	2.00	0.00	0.00
0663884	Bracket, License Plate & Light, P25 LED, Temp Under Tailbrd	NFPA	0.07	0.00	0.00
0688124	Lights, Hatch Compt, LED Strip Light, 189", Both Sides	NFPA	1.73	1.73	0.00
0709438	Light, Walking Surf, FRP Flood, LED	NFPA	2.00	0.00	0.00
0724463	Controller, Pressure, Pierce LCD, PUC	NFPA	1.70	0.00	0.00
0730266	Lights, Rear/Side Up Zone, Wln C9L** LED 4lts	NFPA	4.00	6.00	0.00
0734655	DEF Tank, 7.3 Gallon, LS Fill, Under Cab, Paccar, Fill Dr, ENF	NFPA	0.60	11.40	0.00
0735474	Lights, Clearance/Marker/ID, Front, P25 LED 7 Lts, Saber FR/Enforcer	NFPA	0.35	0.00	0.00
0736932	Lights, Front Zone, Wln C6L** C6L** C6L** C6L**, Q-Bzl, 4lts	NFPA	1.04	2.08	2.08
0739224	Indicator Light @ Pump Panel, Throttle Ready, Incl w/Pressure	NFPA	0.10	0.00	0.00
0745971	Engine, Paccar MX13, 510HP, 1850 lb-ft W/OBD, EPA 2021, REPTO,	NFPA	6.00	0.00	0.00
0747660	Lights, Crosslay Compt, Forward LED, 2Lts	NFPA	1.20	0.00	0.00
0750438	Water Level Gauge, Wln PSTANK2, LED 1-Light, 4-Level	NFPA	1.60	0.00	0.00
0756688	Gauge, Water Level, Pierce, In pressure Controller, w/Mini Slave,	NFPA	1.23	0.00	0.00
0773305	Lights, Rear Zone Lower, Wln C6L** LED	NFPA	1.04	1.56	0.00
0778309	Lights, Side Zone Lower, Wln C6L**, 6lts	NFPA	3.12	4.68	0.00
0781320	Cabinet, Forward Facing, RS, 22 W x 30 H x 16.25 D, Roll, SFR/Enf	NFPA	0.30	0.30	0.00
0781735	Cabinet, Forward Facing, LS, 22 W x 30 H x 16.25 D, Roll, SFR/Enf	NFPA	0.30	0.30	0.00
0783157	Headlights, Rect LED, JW Spkr Evo 2, Heat,	NFPA	6.60	6.60	0.00
0784441	Inverter, Xantrex PROsine 806-1802, 1800W 120V AC 1350W	NFPA	131.84	0.00	0.00
0791528	Light, Traffic Directing, Wln TAL65, 36.00" Long, TACTL5	NFPA	0.60	1.20	0.00
0892638	Lights, Cab & Crw Cab Acs Stps, P25, LED w/Bezel, 6lts	NFPA	1.00	0.00	0.00
0893593	Lights, Hose Bed, Below Alum Cvr, Dual LED Light Strips	NFPA	2.52	0.00	0.00
0896453	Lightbar, Wln, Freedom IV-V, 72", RAlYRBRBRW_Opt_WBRBRRAlyR	NFPA	9.92	4.46	9.60
0647728	Alternator, 430 amp, Delco Remy 55SI	S	0.00	0.00	0.00
Load Totals:			229.97	482.22	388.35

Note: Minimum Continuous Load is in "Blocking Right of Way" mode. (Reference current edition of NFPA 1901)

Note: Intermittent Load items are not factored in on any alternator load comparisons. These items are included on the report for reference only and should be looked at as amp draw exclusion items. (Reference current edition of NFPA 1901)

Note: Total Connected Load "Demand" represents Total Connected Load minus any Load Managed items

Alternator Output at Idle: 268.00

Alternator Output at Governed Speed: 374.00

* UDMC = User Defined Mission Critical, LM = User Defined Load Managed, S = Electrical Amperage Supply



Electrical Analysis

12/31/2021

Bid #: 1036

Desc: Glenwood Springs Pumper

Customer: Glenwood Springs Fire Department

Minimum Continuous Load	
Supply:	268.00
Demand:	229.97
Variance:	38.03

Job #:

Sales Rep: Kerber, Wayne

Organization: Front Range Fire Apparatus, Ltd

Total Connected Load	
Supply:	374.00
Demand:	372.82
Variance:	1.18

* UDMC = User Defined Mission Critical, LM = User Defined Load Managed, S = Electrical Amperage Supply



Turning Performance Analysis

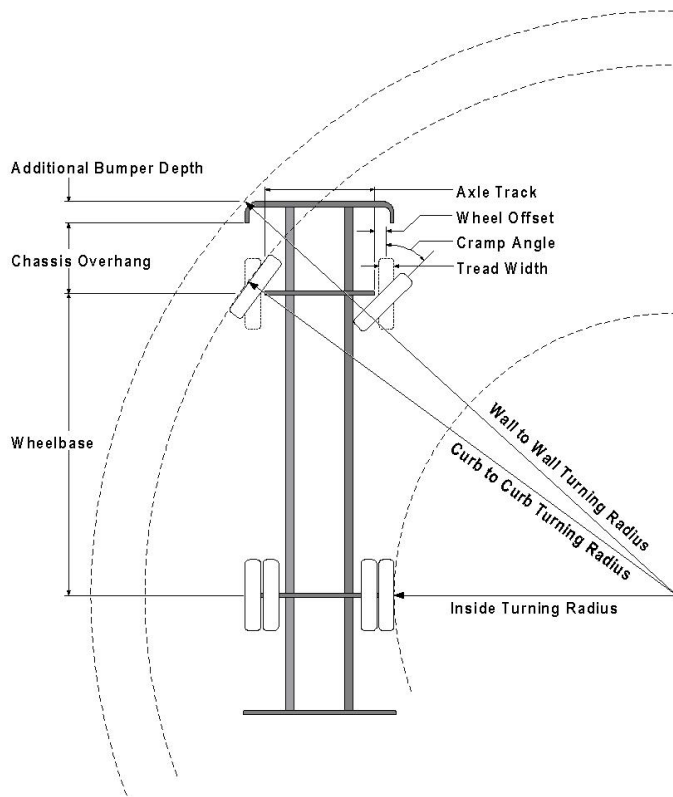
12/31/2021

Bid Number: 1036

Department: Glenwood Springs Fire Department

Chassis: Enforcer Chassis, PUC

Body: Pumper, PUC, Aluminum



Parameters:

*Inside Cramp Angle:	50°
Axle Track:	85.86 in.
Wheel Offset:	3.12 in.
Tread Width:	12.5 in.
Chassis Overhang:	65.95 in.
Additional Bumper Depth:	13 in.
Front Overhang:	78.95 in.
Wheelbase:	195 in.

Calculated Turning Radii:

Inside Turn:	12 ft. 10 in.
Curb to curb:	27 ft. 2 in.
Wall to wall:	31 ft. 5 in.

Category	Option	Description
Axle, Front, Custom	0784595	Axle, Front, EZ Trac, Hydraulic AWD, 20,000 lb, Enf
Axle, Front, Custom	0784595	Axle, Front, EZ Trac, Hydraulic AWD, 20,000 lb, Enf
Wheels, Front	0614396	Wheels, Front, Alcoa, 22.50" x 9.00", Aluminum, Hub Pilot, M-H 4x4
Bumpers	0606557	Bumper, 13" Extended, Saber FR/Enforcer
Tires, Front	0765282	Tires, Front, Michelin, XZU S2, 315/80R22.50, 20 ply LRL, Fire Service Speed Rtnng

Notes:

*Actual Inside cramp angle may be less than shown.

Curb to Curb turning radius calculated for 9.00 inch curb.

Definitions:

Inside CrampAngle	Maximum turning angle of the front inside fire.
Axle Track	King-pin to King-pin distance of front axle.
Wheel Offset	Offset from the center line of the wheel to the King-pin.
Tread Width	Width of the tire tread.
Chassis Overhang	Distance of the center line of the front axle to the front edge of the cab. This does not include the bumper depth.
Additional Bumper Wheel	Depth that the bumper assembly adds to the front overhang.
Wheelbase	Distance between the center lines of the vehicles front and rear axles.
Inside Turning Radius	Radius of the smallest circle around which the vehicle can turn.
Curb to Curb Turning Radius	Radius of the smallest circle around which the vehicle's tires can turn. This measures assumes a curb height of 9 inches.
Wall to Wall Turning Radius	Radius of the smallest circle around which the vehicle's tires can turn. This measures takes into account any front overhang due to chassis , bumper extensions and or aerial devices.

GLENWOOD SPRINGS ENFORCER PUC PUMPER

Front Range Fire Apparatus is pleased to submit a proposal to Glenwood Springs Fire Department for a **Pierce® multi purpose response vehicle** per your request for quotation. The following paragraphs will describe in detail the apparatus, construction methods, and equipment proposed. This proposal will indicate size, type, model and make of components parts and equipment, providing proof of compliance with each and every item (except where noted) in the departments advertised specifications.

PIERCE MANUFACTURING was founded in 1913. Since then we have been building bodies with one philosophy, "BUILD THE FINEST". Our skilled craftsmen take pride in their work, which is reflected, in the final product. We have been building fire apparatus since the early "forties" giving Pierce Manufacturing over 75 years of experience in the fire apparatus market. Pierce Manufacturing has built and put into service more than 62,500 apparatus, including more than 33,900 on Pierce custom chassis designed and built specifically for fire and emergency applications. Our Appleton, Wisconsin facility has over 870,000 total square feet of floor space situated on approximately 105 acres of land. Our Bradenton, Florida facility has 300,000 square feet of floor space situated on approximately 38 acres of land.

Our beliefs in high ethical standards are carried through in all of our commitments and to everyone with whom we do business. Honesty, Integrity, Accountability and Citizenship are global tenets by which we all live and work. Consequently, we neither engage in, nor have we ever been convicted of price fixing, bid rigging, or collusion in any domestic or international fire apparatus market.

Pierce has only one brand of fire apparatus "Pierce", ensuring you are receiving top of the line product that meets your specification.

In accordance with the current edition of NFPA 1901 standards, this proposal will specify whether the fire department, manufacturer, or apparatus dealership will provide required loose equipment.

Images and illustrative material in this proposal are as accurate as known at the time of publication, but are subject to change without notice. Images and illustrative material is for reference only, and may include optional equipment and accessories and may not include all standard equipment.

GENERAL DESIGN AND CONSTRUCTION

To control quality, ensure compatibility, and provide a single source for service and warranty, the custom cab, chassis, pump module and body will be entirely designed, assembled/welded and painted in Pierce owned manufacturing facilities. This includes, but not limited to the cab weldment, the pumphouse module assembly, the chassis assembly, the body and the electrical system.

QUALITY AND WORKMANSHIP

Pierce has set the pace for quality and workmanship in the fire apparatus field. Our tradition of building the highest quality units with craftsmen second to none has been the rule right from the beginning and we demonstrate that ongoing commitment by: Ensuring all steel welding follows American Welding Society D1.1-2004 recommendations for structural steel welding. All aluminum welding follows American Welding society and ANSI D1.2-2003 requirements for structural welding of aluminum. All sheet metal welding follows American welding Society B2.1-2000 requirements for structural welding of sheet metal. Our flux core arc welding uses alloy rods, type 7000 and is performed to American Welding Society standards A5.20-E70T1. Furthermore, all employees classified as welders are tested

GLENWOOD SPRINGS ENFORCER PUC PUMPER

and certified to meet the American welding Society codes upon hire and every three (3) years thereafter. Pierce also employs an American Welding Society certified welding inspector in plant during working hours to monitor weld quality.

Pierce Manufacturing operates a Quality Management System under the requirements of ISO 9001. These standards sponsored by the International Organization for Standardization (ISO) specify the quality systems that are established by the manufacturer for design, manufacture, installation and service. A copy of the certificate of compliance is included with this proposal.

In addition to the Quality Management system, we also employ a Quality Achievement Supplier program to insure the vendors and suppliers that we utilize meet the high standards we demand. That is just part of our overall "Quality at the Source" program at Pierce.

To demonstrate the quality of our products and services, a list of at least five (5) fire departments/municipalities that have purchased vehicles for a second time is provided.

DELIVERY

The apparatus will be delivered under its own power to insure proper break-in of all components while the apparatus is still under warranty. A qualified delivery representative shall deliver the apparatus and remain for a sufficient length of time to instruct personnel in proper operation, care and maintenance of the equipment delivered.

MANUAL AND SERVICE INFORMATION

At time of delivery, complete operation and maintenance manuals covering the apparatus will be provided. A permanent plate will be mounted in the driver's compartment specifying the quantity and type of fluids required including engine oil, engine coolant, transmission, pump transmission lubrication, pump primer and drive axle.

SAFETY VIDEO

At the time of delivery Pierce will also provide one (1) 39-minute, professionally produced apparatus safety video, in DVD format. This video will address key safety considerations for personnel to follow when they are driving, operating, and maintaining the apparatus, including the following: vehicle pre-trip inspection, chassis operation, pump operation, aerial operation, and safety during maintenance.

PERFORMANCE TESTS

A road test will be conducted with the apparatus fully loaded and a continuous run of no less than ten (10) miles. During that time the apparatus will show no loss of power nor will it overheat. The transmission drive shaft or shafts and the axles will run quietly and be free of abnormal vibration or noise. The apparatus when fully loaded will not have less than 25 percent nor more than 50 percent on the front axle, and not less than 50 percent nor more than 75 percent on the rear axle. The apparatus will meet NFPA 1901 acceleration and braking requirements.

SERVICE AND WARRANTY SUPPORT

Pierce dealership support will be provided by Front Range Fire Apparatus by operating a Pierce authorized service center. The service center will have factory-trained mechanics on staff versed in Pierce fire apparatus. The service facility will be located within two hundred fifty (250) miles of the fire department.

GLENWOOD SPRINGS ENFORCER PUC PUMPER

In addition to the dealership, Pierce has service facilities located in both, Weyauwega, Wisconsin and Bradenton, Florida. Pierce also maintains a dedicated parts facility of over 100,000 square feet in Appleton, Wisconsin. The parts facility stocks in excess of \$5,000,000 in parts dedicated to service and replacement parts. The parts facility employs a staff dedicated solely for the distribution and shipment of service and replacement parts.

Service parts for the apparatus being proposed can be found via Pierceparts.com which, is an interactive online tool that delivers information regarding your specific apparatus as well as the opportunity to register for training classes.

As a Pierce customer you have the ability to view the complete bill of materials for your specific apparatus, including assembly drawings, piece part drawings, and beneficial parts notations. You will also have the ability to search the complete Pierce item master through a parts search function which offers all Pierce SKU's and descriptions offered on all Pierce apparatus. Published component catalogs, which include proprietary systems along with an extensive operators manual library is available for easy reference.

Pierce Manufacturing maintains a dedicated service and warranty staff of over 35 personnel, dedicated to customer support, which also maintains a 24 hour 7 day a week toll free hot line, four (4) on staff EVTs, and offers hands-on repair and maintenance training classes multiple times a year.

LIABILITY

The successful bidder will defend any and all suits and assume all liability for the use of any patented process including any device or article forming a part of the apparatus or any appliance furnished under the contract.

INSURANCE PROVIDED BY BIDDER

COMMERCIAL GENERAL LIABILITY INSURANCE

The successful bidder will, during the performance of the contract and for three (3) years following acceptance of the product, keep in force at least the following minimum limits of commercial general liability insurance:

Each Occurrence\$1,000,000

Products/Completed Operations Aggregate\$1,000,000

Personal and Advertising Injury\$1,000,000

General Aggregate\$2,000,000

Coverage will be written on a Commercial General Liability form. The policy will be written on an occurrence form and will include Contractual Liability coverage for bodily injury and property damage subject to the terms and conditions of the policy. The policy will include Owner as an additional insured when required by written contract.

COMMERCIAL AUTOMOBILE LIABILITY INSURANCE

The successful bidder will, during the performance of the contract, keep in force at least the following minimum limits of commercial automobile liability insurance and coverage will be written on a Commercial Automobile liability form:

Each Accident Combined Single Limit:\$1,000,000

UMBRELLA/EXCESS LIABILITY INSURANCE

The successful bidder will, during the performance of the contract and for three (3) years following acceptance of the product, keep in force at least the following minimum limits of umbrella liability insurance:

Aggregate:\$3,000,000

Each Occurrence:\$3,000,000

The umbrella policy will be written on an occurrence basis and at a minimum provide excess to the bidder's General Liability and Automobile Liability policies.

The required limits can be provided by one (1) or more policies provided all other insurance requirements are met.

Coverage will be provided by a carrier(s) rated A- or better by A.M. Best.

All policies will provide a 30-day notice of cancellation to the named insured. The Certificate of Insurance will provide the following cancellation clause: Should any of the above described policies be cancelled before the expiration date thereof, notice will be delivered in accordance with the policy provisions.

Bidder agrees to furnish owner with a current Certificate of Insurance with the coverages listed above along with the bid. The certificate will show the purchaser as certificate holder.

INSURANCE PROVIDED BY MANUFACTURER

PRODUCT LIABILITY INSURANCE

The manufacturer will, during the performance of the contract and for three (3) years following acceptance of the product, keep in force at least the following minimum limits of Product Liability insurance:

Each Occurrence\$1,000,000

Products/Completed Operations Aggregate\$1,000,000

Coverage will be written on a Commercial General Liability form. The policy will be written on an occurrence form. The manufacturer's policy will include the owner as additional insured when required by written contract between the Owner and a Pierce authorized dealer.

UMBRELLA/EXCESS LIABILITY INSURANCE

The manufacturer will, during the performance of the contract and for three (3) years following acceptance of the product, keep in force at least the following minimum limits of umbrella liability insurance:

Each Occurrence:\$25,000,000

Aggregate:\$25,000,000

The umbrella policy will be written on an occurrence basis and provide excess to the manufacturer's General Liability/Products policies.

The required limits can be provided by one (1) or more policies provided all other insurance requirements are met.

Coverage will be provided by a carrier(s) rated A- or better by A.M. Best.

All policies will provide a 30-day notice of cancellation to the named insured. The Certificate of Insurance will provide the following cancellation clause: Should any of the above described policies be cancelled before the expiration date thereof, notice will be delivered in accordance with the policy provisions.

Manufacturer agrees to furnish owner with a current Certificate of Insurance with the coverages listed above along with the bid. The certificate will show the purchaser as the certificate holder.

SINGLE SOURCE MANUFACTURER

Pierce Manufacturing, Inc. provides an integrated approach to the design and manufacture of our products that delivers superior apparatus and a dedicated support team. From our facilities, the chassis, cab weldment, cab, pumphouse (including the sheet metal enclosure, valve controls, piping and operators panel) and body will be entirely designed, tested, and hand assembled to the customer's exact specifications. The electrical system either hardwired or multiplexed, will be both designed and integrated by Pierce Manufacturing. The warranties relative to these major components (excluding component warranties such as engine, transmission, axles, pump, etc.) will be provided by Pierce as a single source manufacturer. Pierce's single source solution adds value by providing a fully engineered product that offers durability, reliability, maintainability, performance, and a high level of quality.

Your apparatus will be manufactured in Appleton, Wisconsin.

NFPA 2016 STANDARDS

This unit will comply with the NFPA standards effective January 1, 2016, except for fire department directed exceptions. These exceptions will be set forth in the Statement of Exceptions.

Certification of slip resistance of all stepping, standing and walking surfaces will be supplied with delivery of the apparatus.

All horizontal surfaces designated as a standing or walking surface that are greater than 48.00" above the ground must be defined by a 1.00" wide line along its outside perimeter. Perimeter markings and designated access paths to destination points will be identified on the customer approval print and are

GLENWOOD SPRINGS ENFORCER PUC PUMPER

shown as approximate. Actual location(s) will be determined based on materials used and actual conditions at final build. Access paths may pass through hose storage areas and opening or removal of covers or restraints may be required. Access paths may require the operation of devices and equipment such as the aerial device or ladder rack.

A plate that is highly visible to the driver while seated will be provided. This plate will show the overall height, length, and gross vehicle weight rating.

The manufacturer will have programs in place for training, proficiency testing and performance for any staff involved with certifications.

An official of the company will designate, in writing, who is qualified to witness and certify test results.

NFPA COMPLIANCY

Apparatus proposed by the bidder will meet the applicable requirements of the National Fire Protection Association (NFPA) as stated in current edition at time of contract execution. Fire department's specifications that differ from NFPA specifications will be indicated in the proposal as "non-NFPA".

VEHICLE INSPECTION PROGRAM CERTIFICATION

To assure the vehicle is built to current NFPA standards, the apparatus, in its entirety, will be third-party, audit-certified through Underwriters Laboratory (UL) that it is built and complies to all applicable standards in the current edition of NFPA 1901. The certification will include: all design, production, operational, and performance testing of not only the apparatus, but those components that are installed on the apparatus.

A placard will be affixed in the driver's side area stating the third party agency, the date, the standard and the certificate number of the whole vehicle audit.

PUMP TEST

Underwriters Laboratory (UL) will test, approve, and certify the pump. The test results and the pump manufacturer's certification of hydrostatic test; the engine manufacturer's certified brake horsepower curve; and the pump manufacturer's record of pump construction details will be forwarded to the Fire Department.

GENERATOR TEST

If the unit has a generator, Underwriters Laboratory (UL) will test, approve, and certify the generator. The test results will be provided to the Fire Department at the time of delivery.

BREATHING AIR TEST

If the unit has breathing air, Pierce Manufacturing will draw an air sample from the air system and have the sample certified that the air quality meets the requirements of NFPA 1989, *Standard on Breathing Air Quality for Fire and Emergency Services Respiratory Protection*.

INSPECTION TRIP(S)

The bidder will provide three (3) factory inspection trip(s) for three (3) customer representative(s). The inspection trip(s) will be scheduled at times mutually agreed upon between the manufacturer's

GLENWOOD SPRINGS ENFORCER PUC PUMPER

representative and the customer. All costs such as travel, lodging and meals will be the responsibility of the bidder.

BID BOND

A bid bond as security for the bid in the form of a 5% bid bond will be provided with the proposal. This bid bond will be issued by a Surety Company who is listed on the U.S. Treasury Departments list of acceptable sureties as published in Department Circular 570. The bid bond will be issued by an authorized representative of the Surety Company and will be accompanied by a certified power of attorney dated on or before the date of bid. The bid bond will include language, which assures that the bidder/principal will give a bond or bonds as may be specified in the bidding or contract documents, with good and sufficient surety for the faithful performance of the contract, including the Basic One (1) Year Limited Warranty, and for the prompt payment of labor and material furnished in the prosecution of the contract. A bid bond for 5% of the total amount of the proposal is enclosed.

Notwithstanding any document or assertion to the contrary, any surety bond related to the sale of a vehicle will apply only to the Basic One (1) Year Limited Warranty for such vehicle. Any surety bond related to the sale of a vehicle will not apply to any other warranties that are included within this bid (OEM or otherwise) or to the warranties (if any) of any third party of any part, component, attachment or accessory that is incorporated into or attached to the vehicle. In the event of any contradiction or inconsistency between this provision and any other document or assertion, this provision will prevail.

PERFORMANCE BOND, 1 YEAR

The successful bidder will furnish a Performance and Payment bond (Bond) equal to 100 percent of the total contract amount within 30 days of the notice of award. Such Bond will be in a form acceptable to the Owner and issued by a surety company included within the Department of Treasury's Listing of Approved Sureties (Department Circular 570) with a minimum A.M. Best Financial Strength Rating of A and Size Category of XV. In the event of a bond issued by a surety of a lesser Size Category, a minimum Financial Strength rating of A+ is required.

Bidder and Bidder's surety agree that the Bond issued hereunder, whether expressly stated or not, also includes the surety's guarantee of the vehicle manufacturer's Basic One (1) Year Limited Warranty period included within this proposal. Owner agrees that the penal amount of this bond will be simultaneously amended to 100% percent of the total contract amount upon satisfactory acceptance and delivery of the vehicle(s) included herein. Notwithstanding anything contained within this contract to the contrary, the surety's liability for any warranties of any type will not exceed one (1) year from the date of such satisfactory acceptance and delivery, or the actual Basic One (1) Year Limited Warranty period, whichever is shorter.

APPROVAL DRAWING

A drawing of the proposed apparatus will be prepared and provided to the purchaser for approval before construction begins. The Pierce sales representative will also be provided with a copy of the same drawing. The finalized and approved drawing will become part of the contract documents. This drawing will indicate the chassis make and model, location of the lights, siren, horns, compartments, major components, etc.

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A "revised" approval drawing of the apparatus will be prepared and submitted by Pierce to the purchaser showing any changes made to the approval drawing.

ELECTRICAL WIRING DIAGRAMS

Two (2) electrical wiring diagrams, prepared for the model of chassis and body, will be provided.

ENFORCER CHASSIS

The Pierce Enforcer™ is the custom chassis developed exclusively for the fire service. Chassis provided will be a new, tilt-type custom fire apparatus. The chassis will be manufactured in the apparatus body builder's facility eliminating any split responsibility. The chassis will be designed and manufactured for heavy-duty service, with adequate strength, capacity for the intended load to be sustained, and the type of service required. The chassis will be the manufacturer's first line tilt cab.

WHEELBASE

The wheelbase of the vehicle will be 195".

GVW RATING

The gross vehicle weight rating will be 47,000#.

FRAME

The chassis frame will be built with two (2) steel channels bolted to five (5) cross members or more, depending on other options of the apparatus. The side rails will have a 13.38" tall web over the front and mid sections of the chassis, with a continuous smooth taper to 10.75" over the rear axle. Each rail will have a section modulus of 25.992 cubic inches and a resisting bending moment (rbm) of 3,119,040 in-lb over the critical regions of the frame assembly, with a section modulus of 18.96 cubic inches with an rbm of 2,275,200 in-lb over the rear axle. The frame rails will be constructed of 120,000 psi yield strength heat-treated 0.38" thick steel with 3.50" wide flanges.

FRONT AXLE

The front axle will have a rated capacity of 20,000 lb. To overcome traction and mobility issues, the axle will include EZ Trac® on demand all wheel drive hydraulic drive assist.

The front axle will be provided with EZ Trac® mode package. A switch will be provided on the instrument panel allowing the driver to select between different modes that can be used depending on the terrain such as, mud, snow, or sand.

A hydraulic unit including hydraulic reservoir, oil filtration, electric cooling fan, hydraulic control valve and ECU will be mounted in the apparatus body. Hydraulic hoses will be routed through the frame.

FRONT SUSPENSION

The front springs will be a Standens, three (3)-leaf, taper leaf design, 54.00" long x 4.00" wide, with a ground rating of 20,000 lb.

The two (2) top leaves will wrap the forward spring hanger pin. The top leaf will also wrap the rear spring hanger pin. Both the front and rear eyes will be Berlin style wraps that will place the eyes in the horizontal plane within the main leaf. This will reduce bending stress from acceleration and braking.

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A steel encased rubber bushing will be used in the spring eye. The steel encased rubber bushing will be maintenance free and require no lubrication.

SHOCK ABSORBERS

To provide a smoother ride, the front axle will be furnished with heavy-duty telescoping shock absorbers.

FRONT OIL SEALS

Oil seals with viewing window will be provided on the front axle.

FRONT TIRES

The front tires will be Michelin 315/80R22.5 radials, 20 ply, load range L, all position XZU® S2 tread, rated for 20,000 lb maximum axle load and 75 mph maximum speed.

The tires will be mounted on Alcoa® 22.50" x 9.00" polished aluminum disc wheels.

REAR AXLE

The rear axle will be a Dana, Model S26-190, with a capacity of 27,000 lb.

TOP SPEED OF VEHICLE

A rear axle ratio will be furnished to allow the vehicle to reach a top speed of 68 mph.

REAR SUSPENSION

The rear suspension will be Standens, semi-elliptical, 3.00" wide x 53.00" long, 12-leaf pack with a ground rating of 27,000 lb. The spring hangers will be castings.

The two (2) top leaves will wrap the forward spring hanger pin, and the rear of the spring will be a slipper style end that will ride in a rear slipper hanger. To reduce bending stress due to acceleration and braking, the front eye will be a berlin eye that will place the front spring pin in the horizontal plane within the main leaf.

A steel encased rubber bushing will be used in the spring eye. The steel encased rubber bushing will be maintenance free and require no lubrication.

REAR OIL SEALS

Oil seals will be provided on the rear axle(s).

DRIVER CONTROL DIFFERENTIAL LOCK (DCDL)

A rear axle will be equipped with a driver controlled differential lock (DCDL).

The control will be located within easy reach of the driver. An indicator light will be provided next to the control switch.

REAR TIRES

Rear tires will be four (4) Michelin 12R22.50 radials, 16 ply all season XDN2 tread, rated for 27,120 lb maximum axle load and 75 mph maximum speed.

The tires will be mounted on Alcoa 22.50" x 8.25" polished aluminum disc wheels with a ten (10) stud 11.25" bolt circle.

TIRE BALANCE

All tires will be balanced with Counteract balancing beads. The beads will be inserted into the tire and eliminate the need for wheel weights.

TIRE PRESSURE MANAGEMENT

There will be a RealWheels LED AirSecure™ tire alert pressure management system provided, that will monitor each tire's pressure. A sensor will be provided on the valve stem of each tire for a total of six (6) tires.

The sensor will calibrate to the tire pressure when installed on the valve stem for pressures between 10 and 200 psi. The sensor will activate an integral battery operated LED when the pressure of that tire drops 5 to 8 psi.

Removing the cap from the sensor will indicate the functionality of the sensor and battery. If the sensor and battery are in working condition, the LED will immediately start to flash.

REAR HUB COVERS

A pair of stainless steel high hat hub covers will be provided on rear axle hubs.

CHROME LUG NUT COVERS

Chrome lug nut covers will be supplied on front and rear wheels.

MUD FLAPS

Mud flaps with a Pierce logo will be installed behind the front and rear wheels.

AUTOMATIC TIRE CHAINS

One (1) pair of ONSPOT automatic tire chains will be provided at the rear. System will be electric over air operated with switch on cab instrument panel. System may be engaged at speeds up to 25 mph and operated at speeds up to 35 mph.

WHEEL CHOCKS

There will be one (1) pair of folding Ziamatic, Model SAC-44-E, aluminum alloy, Quick-Choc wheel blocks, with easy-grip handle provided.

Wheel Chock Brackets

There will be one (1) pair of Zico, Model SQCH-44-H, horizontal mounting wheel chock brackets provided for the Ziamatic, Model SAC-44-E, folding wheel chocks. The brackets will be made of aluminum and consist of a quick release spring loaded rod to hold the wheel chocks in place. The brackets will be mounted below the left side rear compartment.

ELECTRONIC STABILITY CONTROL

A vehicle control system will be provided as an integral part of the ABS brake system from Meritor Wabco.

The system will monitor and update the lateral acceleration of the vehicle and compare it to a critical threshold where a side roll event may occur. If the critical threshold is met, the vehicle control system will automatically reduce engine RPM, engage the engine retarder (if equipped), and selectively apply

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brakes to the individual wheel ends of the front and rear axles to reduce the possibility of a side roll event.

The system will monitor directional stability through a lateral accelerometer, steer angle sensor and yaw rate sensor. If spinout or drift out is detected, the vehicle control system will selectively apply brakes to the individual wheel ends of the front and rear axles to bring the vehicle back to its intended direction.

ANTI-LOCK BRAKE SYSTEM

The vehicle will be equipped with a Wabco 4S4M, anti-lock braking system. The ABS will provide a four (4) channel anti-lock braking control on both the front and rear wheels. A digitally controlled system that utilizes microprocessor technology will control the anti-lock braking system. Each wheel will be monitored by the system. When any wheel begins to lockup, a signal will be sent to the control unit. This control unit will then reduce the braking of that wheel for a fraction of a second and then reapply the brake. This anti-lock brake system will eliminate the lockup of any wheel thus helping to prevent the apparatus from skidding out of control.

AUTOMATIC TRACTION CONTROL

An anti-slip feature will be included with the ABS. The Automatic Traction Control will be used for traction in poor road and weather conditions. The Automatic Traction Control will act as an electronic differential lock that will not allow a driving wheel to spin, thereby supplying traction at all times. The ABS electronic control unit (ECU) will work with the engine ECU, sharing information concerning wheel slip. Engine ECU will use information to control engine speed, allowing only as much throttle application as required for the available traction, regardless of how much the driver is asking for. An "off road traction" switch will be provided on the instrument panel. Activation of the switch will allow additional tire slip to let the truck climb out and get on top of deep snow or mud.

BRAKES

The service brake system will be full air type by Bendix®.

Front brakes will be Model ADB22X™, disc type with automatic pad wear adjustment and 17.00" rotors for improved stopping distance.

The rear brakes will be Bendix™ 16.50" x 8.63" cam operated with automatic slack adjusters.

AIR COMPRESSOR, BRAKE SYSTEM

The air compressor will be a Wabco single piston compressor with a 26.8 CI displacement.

BRAKE SYSTEM

The brake system will include:

- Brake treadle valve
- Heated automatic moisture ejector on air dryer
- Total air system minimum capacity of 4,272 cubic inches
- Two (2) air pressure gauges with a red warning light and an audible alarm, that activates when air pressure falls below 60 psi
- Spring set parking brake system
- Parking brake operated by a push-pull style control valve

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- A parking "brake on" indicator light on instrument panel
- Park brake relay/inversion and anti-compounding valve, in conjunction with a double check valve system, with an automatic spring brake application at 40 psi
- A pressure protection valve to prevent all air operated accessories from drawing air from the air system when the system pressure drops below 80 psi (550 kPa)
- 1/4 turn drain valves on each air tank

The air tank will be primed and painted to meet a minimum 750 hour salt spray test.

To reduce the effects of corrosion, the air tank will be mounted with stainless steel brackets.

BRAKE SYSTEM AIR DRYER

The air dryer will be WABCO System Saver 1200 with spin-on coalescing filter cartridge and 100 watt heater.

BRAKE LINES

Color-coded nylon brake lines will be provided. The lines will be wrapped in a heat protective loom in the chassis areas that are subject to excessive heat.

AIR INLET

One (1) air inlet with 3D series male coupling will be provided. It will allow station air to be supplied to the apparatus brake system through a shoreline hose. The inlet will be located forward in the driver side lower step well of cab. A check valve will be provided to prevent reverse flow of air. The inlet will discharge into the "wet" tank of the brake system. A mating female fitting will also be provided with the loose equipment.

ENGINE

The chassis will be powered by an electronically controlled engine as described below:

Make:	Paccar
Model:	MX13
Power:	510 hp at 1600rpm
Torque:	1850 lb-ft at 1000rpm
Governed Speed:	1900 rpm
Emissions Certification:	EPA 2021
Fuel:	Diesel
Cylinders:	Six (6)
Displacement:	12.9L
Starter:	DP60
Fuel Filters:	Dual cartridge style with check valve, water separator, and water in fuel sensor

The engine will include On-board diagnostics (OBD), which provides self diagnostic and reporting. The system will give the owner or repair technician access to state of health information for various vehicle sub systems. The system will monitor vehicle systems, engine and after treatment. The system will illuminate a malfunction indicator light on the dash console if a problem is detected.

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REPTO DRIVE

A rear engine power take off will be provided to drive the water pump. A vibration dampener will be provided between the REPTO and water pump. Transmission PTO's used to drive the water pump will not be allowed due to their lower torque ratings. The rear engine power take off will be the same as used extensively throughout the construction industry. Rear engine PTO's allow for continuous 240 hp and 480 lb-ft torque ratings needed for large pump applications. The rear engine power take off will have the same warranty as the engine provided by the engine manufacturer.

HIGH IDLE

A high idle switch will be provided, inside the cab, on the instrument panel, that will automatically maintain a preset engine rpm. A switch will be installed, at the cab instrument panel, for activation/deactivation.

The high idle will be operational only when the parking brake is on and the truck transmission is in neutral. A green indicator light will be provided, adjacent to the switch. The light will illuminate when the above conditions are met. The light will be labeled "OK to Engage High Idle."

ENGINE BRAKE

The compression release brake option is a fully integrated MX engine braking system. It utilizes the turbocharger and backpressure valve, but adds in a hydraulically operated compression brake to increase overall retarding power.

To maximize the effectiveness of the compression brake the MX engine brake system works in conjunction with the turbocharger and back pressure valve.

The driver will be able to turn the engine brake system on/off and have a high, medium and low setting

CLUTCH FAN

A fan clutch will be provided. The fan clutch will be automatic when the pump transmission is in "Road" position, and constantly engaged when in "Pump" position.

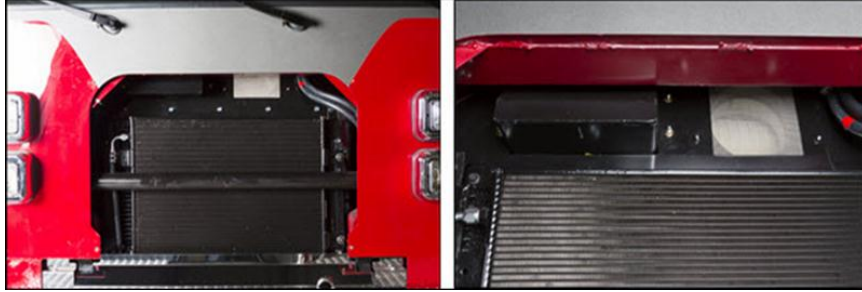
ENGINE AIR INTAKE

The engine air intake will be located above the engine cooling package. It will draw fresh air from the front of the apparatus through the radiator grille.

A stainless steel metal screen will be installed at the inlet of the air intake system that will meet NFPA 1901 requirements.

The air cleaner and stainless steel screen will be easily accessible by tilting the cab.

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EXHAUST SYSTEM

The exhaust system will include a Single Module™ aftertreatment device to meet current EPA standards. The exhaust system will be stainless steel from the turbo to the inlet of the aftertreatment device, and will be 5.00" in diameter. An insulation wrap will be provided on all exhaust pipes between the turbo and aftertreatment device to minimize the heat loss to the aftertreatment device. The exhaust will terminate horizontally ahead of the right side rear wheels. A tailpipe diffuser will be provided to reduce the temperature of the exhaust as it exits. Heat deflector shields will be provided to isolate chassis and body components from the heat of the tailpipe diffuser.

EXHAUST MODIFICATION

The exhaust pipe will be brought out from under the body at a 20 degree angle to the rear.

The diffuser will not be cut straight to the body, and the outer edge will extend slightly outside of the body. There will be a minimum of 2.50" from the exhaust pipe to the under side of the body heat shield. The last 7.00" of the exhaust will be free of hangers and/or clamps.

RADIATOR

The radiator and the complete cooling system will meet or exceed NFPA and engine manufacturer cooling system standards.

For maximum corrosion resistance and cooling performance, the entire radiator core will be constructed using long life aluminum alloy. The radiator core will consist of aluminum fins, having a serpentine design, brazed to aluminum tubes.

The radiator core will have a minimum front area of 1060 square inches.

Supply tank will be made of heavy duty glass-reinforced nylon and the return tank will be made of aluminum. Both tanks will be crimped onto the core assembly using header tabs and a compression gasket to complete the radiator core assembly. There will be a full steel frame around the inserts to enhance cooling system durability and reliability.

The radiator will be compatible with commercial antifreeze solutions.

The radiator assembly will be isolated from the chassis frame rails with rubber isolators to prevent the development of leaks caused by twisting or straining when the apparatus operates over uneven terrain.

The radiator will include a de-aeration/expansion tank. For visual coolant level inspection, the radiator will have a built-in sight glass. The radiator will be equipped with a 15 psi pressure relief cap.

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A drain port will be located at the lowest point of the cooling system and/or the bottom of the radiator to permit complete flushing of the coolant from the system.

Shields or baffles will be provided to prevent recirculation of hot air to the inlet side of the radiator.

COOLANT LINES

Gates, or Goodyear, rubber hose will be used for all engine coolant lines installed by Pierce Manufacturing.

Hose clamps will be stainless steel constant torque type to prevent coolant leakage. They will expand and contract according to coolant system temperature thereby keeping a constant clamping pressure on the hose.

FUEL TANK

A 65 gallon fuel tank will be provided and mounted at the rear of the chassis. The tank will be constructed of 12-gauge, hot rolled steel. It will be equipped with swash partitions and a vent. To eliminate the effects of corrosion, the fuel tank will be mounted with stainless steel straps.

A 0.75" drain plug will be located in a low point of the tank for drainage.

A fill inlet will be located on the left hand side of the body and is covered with a hinged, spring loaded, stainless steel door that is marked "Ultra Low Sulfur - Diesel Fuel Only."

A 0.50" diameter vent will be installed from tank top to just below fuel fill inlet.

The fuel tank will meet all FHWA 393.67 requirements including a fill capacity of 95 percent of tank volume.

All fuel lines will be provided as recommended by the engine manufacturer.

DIESEL EXHAUST FLUID TANK

A 7.3 gallon diesel exhaust fluid (DEF) tank will be provided and mounted under the cab on the driver's side.

A fill inlet will be provided on the driver's side of the cab. The door will be secured by a lift and turn latch and be painted

The tank will meet the engine manufacturers requirement for 10 percent expansion space in the event of tank freezing.

The tank will include an integrated heater unit that utilizes engine coolant to thaw the DEF in the event of freezing.

TRANSMISSION

An Allison 5th generation, Model EVS 4000P, electronic, torque converting, automatic transmission will be provided.

The transmission will be equipped with prognostics to monitor oil life, filter life, and transmission health. A wrench icon on the shift selector's digital display will indicate when service is due.

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Two (2) PTO openings will be located on left side and top of converter housing (positions 8 o'clock and 1 o'clock).

A transmission temperature gauge with an amber light and buzzer will be installed on the cab instrument panel.

TRANSMISSION SHIFTER

A six (6)-speed push button shift module will be mounted to right of driver on console. Shift position indicator will be indirectly lit for after dark operation.

The transmission ratio will be:

1st	3.51 to 1.00
2nd	1.91 to 1.00
3rd	1.43 to 1.00
4th	1.00 to 1.00
5th	0.75 to 1.00
6th	0.64 to 1.00
R	4.80 to 1.00

TRANSMISSION PROGRAMMING

The transmission will be programmed to automatically shift the transmission to neutral when the parking brake is set to simplify operation and increase operational safety.

TRANSMISSION COOLER

A Modine plate and fin transmission oil cooler will be provided using engine coolant to control the transmission oil temperature.

DRIVELINE

Drivelines will be a heavy-duty metal tube and be equipped with Spicer® 1810 universal joints.

The shafts will be dynamically balanced before installation.

A splined slip joint will be provided in each driveshaft where the driveline design requires it. The slip joint will be coated with Glidecoat® or equivalent.

STEERING

Dual steering gear, with integral heavy-duty power steering, will be provided. For reduced system temperatures, the power steering will incorporate an air to oil cooler and Paccar hydraulic pump with integral pressure and flow control. All power steering lines will have wire braded lines with crimped fittings.

A tilt and telescopic steering column will be provided to improve fit for a broader range of driver configurations.

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STEERING WHEEL

The steering wheel will be 18.00" in diameter, have tilting and telescoping capabilities, and a 4-spoke design.

LOGO AND CUSTOMER DESIGNATION ON DASH

The dash panel will have an emblem containing the Pierce logo and customer name. The emblem will have three (3) rows of text for the customer's department name. There will be a maximum of eight (8) characters in the first row, 11 characters in the second row and 11 characters in the third row.

The first row of text will be: GLENWOOD

The second row of text will be: SPRINGS

The third row of text will be: blank

BUMPER

A one (1) piece, ten (10) gauge, 304-2B type polished stainless steel bumper, minimum of 10.00" high, will be attached to a bolted modular extension frame constructed of 50,000 psi tensile steel "C" channel mounted directly behind it to provide adequate support strength.

The bumper will be extended 13.00" from front face of cab.

Gravel Pan

A gravel pan, constructed of bright aluminum treadplate, will be furnished between the bumper and cab face. The gravel pan will be properly supported from the underside to prevent flexing and vibration of the aluminum treadplate.

CENTER HOSE TRAY

A hose tray, constructed of aluminum, will be placed in the center of the bumper extension.

The tray will have a capacity of 75' of 1.75" double jacket cotton-polyester hose.

Black rubber grating will be provided at the bottom of the tray. Drain holes are also provided.

Center Hose Tray Cover

A bright aluminum treadplate cover will be provided over the center hose tray.

The cover will be attached with a stainless steel hinge.

There will be two (2) flush lift and turn latches provided to secure the cover in the closed position and a pneumatic stay arm will hold the cover in the open position.

LIFT AND TOW MOUNTS

Mounted to the frame extension will be lift and tow mounts. The lift and tow mounts will be designed and positioned to adapt to certain tow truck lift systems.

The lift and tow mounts with eyes will be painted the same color as the frame.

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TOW EYES

Two (2) .75" thick stainless steel tow eyes will be installed under the bumper and attached to the front frame members. The tow eyes will be designed and positioned to allow up to a 6,000 lb straight horizontal pull in line with the centerline of the vehicle. The tow eyes will not be used for lifting of the apparatus.

The tow eyes will not be painted.

CAB

The Enforcer cab will be designed specifically for the fire service and manufactured by the chassis builder.

The cab will be built by the apparatus manufacturer in a facility located on the manufacturer's premises.

For reasons of structural integrity and enhanced occupant protection, the cab will be a heavy duty design, constructed to the following minimal standards.

The cab will have 12 main vertical structural members located in the A-pillar (front cab corner posts), B-pillar (side center posts), C-pillar (rear corner posts), and rear wall areas. The A-pillar will be constructed of solid A356-T5 aluminum castings. The B-pillar and C-pillar will be constructed from 0.13" wall extrusions. The rear wall will be constructed of two (2) 2.00" x 2.00" outer aluminum extrusions and two (2) 2.00" x 1.00" inner aluminum extrusions. All main vertical structural members will run from the floor to 4.625" x 3.864" x 0.090" thick roof extrusions to provide a cage-like structure with the A-pillar and roof extrusions being welded into a 0.25" thick corner casting at each of the front corners of the roof assembly.

The front of the cab will be constructed of a 0.13" firewall plate, covered with a 0.090" front skin (for a total thickness of 0.22"), and reinforced with a full width x 0.50" thick cross-cab support located just below the windshield and fully welded to the engine tunnel. The cross-cab support will run the full width of the cab and weld to each A-pillar, the 0.13" firewall plate, and the front skin.

The cab floors will be constructed of 0.125" thick aluminum plate and reinforced at the firewall with an additional 0.25" thick cross-floor support providing a total thickness of 0.375" of structural material at the front floor area. The front floor area will also be supported with two (2) triangular 0.30" wall extrusions that also provides the mounting point for the cab lift. This tubing will run from the floor wireway of the cab to the engine tunnel side plates, creating the structure to support the forces created when lifting the cab.

The cab will be 96.00" wide (outside door skin to outside door skin) to maintain maximum maneuverability.

The forward cab section will have an overall height (from the cab roof to the ground) of approximately 99.00". The crew cab section will have a 10.00" raised roof, with an overall cab height of approximately 109.00". The overall height listed will be calculated based on a truck configuration with the lowest suspension weight rating, the smallest diameter tires for the suspension, no water weight, no loose equipment weight, and no personnel weight. Larger tires, wheels, and suspension will increase the overall height listed.

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The floor to ceiling height inside the crew cab will be 63.50" in the forward facing outboard positions and 54.50" in the forward facing center position.

The crew cab floor will measure 46.00" from the rear wall to the back side of the rear facing seat risers.

The medium block engine tunnel, at the rearward highest point (knee level), will measure 61.50" to the rear wall. The big block engine tunnel will measure 51.50" to the rear wall.

The crew cab will be a totally enclosed design with the interior area completely open to improve visibility and verbal communication between the occupants.

The cab will be a full tilt cab style.

A 3-point cab mount system with rubber isolators will improve ride quality by isolating chassis vibrations from the cab.

CAB ROOF DRIP RAIL

For enhanced protection from inclement weather, a drip rail will be furnished on the sides of the cab. The drip rail will be painted to match the cab roof, and bonded to the sides of the cab. The drip rail will extend the full length of the cab roof.

CAB PUMP ENCLOSURE

The rear of the cab will be made to house the fire pump below the forward facing crew cab seats. The cab side panels will be notched to accommodate the pump panel.

INTERIOR CAB INSULATION

The cab will include 1.00" insulation in the ceiling, 1.50" insulation in the side walls, and 2.00" insulation in the rear wall to maximize acoustic absorption and thermal insulation.

FENDER LINERS

Full circular inner fender liners in the wheel wells will be provided.

PANORAMIC WINDSHIELD

A one (1)-piece safety glass windshield will be provided with over 2,775 square inches of clear viewing area. The windshield will be full width and will provide the occupants with a panoramic view. The windshield will consist of three (3) layers: outer light, middle safety laminate, and inner light. The outer light layer will provide superior chip resistance. The middle safety laminate layer will prevent the windshield glass pieces from detaching in the event of breakage. The inner light will provide yet another chip resistant layer. The cab windshield will be bonded to the aluminum windshield frame using a urethane adhesive. A custom frit pattern will be applied on the outside perimeter of the windshield for a finished automotive appearance.

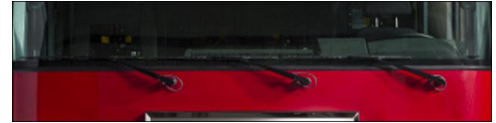


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WINDSHIELD WIPERS

Three (3) electric windshield wipers with washer will be provided that meet FMVSS and SAE requirements.

The washer reservoir will be able to be filled without raising the cab.



[Washer Reservoir Location]

ENGINE TUNNEL

Engine hood side walls will be constructed of 0.375" aluminum. The top will be constructed of 0.125" aluminum and will be tapered at the top to allow for more driver and passenger elbow room.

The engine hood will be insulated for protection from heat and sound. The noise insulation keeps the dBA level within the limits stated in the current NFPA 1901 standards.

The engine tunnel will be no higher than 17.00" off the crew cab floor.

CAB REAR WALL EXTERIOR COVERING

The exterior surface of the rear wall of the cab will be painted job color.

CAB LIFT

A hydraulic cab lift system will be provided consisting of an electric powered hydraulic pump, dual lift cylinders, and necessary hoses and valves.

Hydraulic pump will have a manual override for backup in the event of electrical failure.

Lift controls will be located on the right side pump panel or front area of the body in a convenient location.

The cab will be capable of tilting 43 degrees to accommodate engine maintenance and removal.

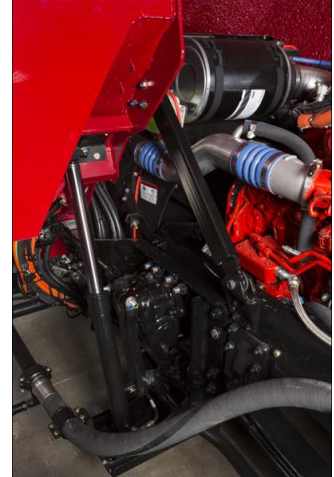


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The cab will be locked down by a 2-point normally closed spring loaded hook type latch that fully engages after the cab has been lowered. The system will be hydraulically actuated to release the normally closed locks when the cab lift control is in the raised position and cab lift system is under pressure. When the cab is completely lowered and system pressure has been relieved, the spring loaded latch mechanisms will return to the normally closed and locked position.

The hydraulic cylinders will be equipped with a velocity fuse that protects the cab from accidentally descending when the control is located in the tilt position.

For increased safety, a redundant mechanical stay arm will be provided that must be manually put in place on the left side between the chassis and cab frame when the cab is in the raised position. This device will be manually stowed to its original position before the cab can be lowered.



Cab Lift Interlock

The cab lift system will be interlocked to the parking brake. The cab tilt mechanism will be active only when the parking brake is set and the ignition switch is in the on position. If the parking brake is released, the cab tilt mechanism will be disabled.

GRILLE

A bright finished aluminum mesh grille screen, inserted behind a bright finished grille surround, will be provided on the front center of the cab.

DOOR JAMB SCUFFPLATES

All cab door jambs will be furnished with a polished stainless steel scuffplate, mounted on the striker side of the jamb.

SIDE OF CAB MOLDING

Chrome molding will be provided on both sides of cab.

MIRRORS

One (1) Ramco, Model 6001-PCHR, polished aluminum mirror will be mounted on each of the side of the cab corners. The mirrors will be 9.25" wide x 13.50" high, with a convex section. The mirror head will have a highly polished aluminum finish.

The flat glass in each mirror will be heated and adjustable, with remote controls that are convenient to the driver.

The convex section in each mirror will be heated and adjustable, with remote controls that are convenient to the driver.

DOORS

To enhance entry and egress to the cab, the forward cab doors will be a minimum of 37.50" wide x 75.50" high. The crew cab doors will be located on the sides of the cab and will be constructed in the

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same manner as the forward cab doors. The crew cab door openings will be a minimum of 34.30" wide x 85.50" high.

The forward cab and crew cab doors will be constructed of extruded aluminum with a nominal material thickness of 0.093". The exterior door skins will be constructed from 0.090" aluminum.

A customized, vertical, pull-down type door handle will be provided on the exterior of each cab door. The finish of the door handle will be chrome/black. The exterior handle will be designed specifically for the fire service to prevent accidental activation, and will provide 4.00" wide x 2.00" deep hand clearance for ease of use with heavy gloved hands.



[Exterior Door Handle]

Each door will also be provided with an interior flush, open style paddle handle that will be readily operable from fore and aft positions, and be designed to prevent accidental activation. The interior handles will provide 4.00" wide x 1.25" deep hand clearance for ease of use with heavy gloved hands.



[Interior Door Handle]

The cab doors will be provided with both interior (rotary knob) and exterior (keyed) locks exceeding FMVSS standards. The keys will be Model 751. The locks will be capable of activating when the doors are open or closed. The doors will remain locked if locks are activated when the doors are opened, then closed.

A full length, heavy duty, stainless steel, piano-type hinge with a 0.38" pin and 11 gauge leaf will be provided on all cab doors. There will be double automotive-type rubber seals around the perimeter of the door framing and door edges to ensure a weather-tight fit.

A chrome grab handle will be provided on the inside of each cab door for ease of entry.

A red webbed grab handle will be installed on the crew cab door stop strap. The grab handles will be securely mounted.

The cab steps at each cab door location will be located inside the cab doors to protect the steps from weather elements.

Door Panels

The inner cab door panels will be constructed out of brushed stainless steel.

MANUAL CAB DOOR WINDOWS

All cab entry doors will contain a conventional roll down window.

CAB STEPS

The forward cab and crew cab access steps will be a full size two (2) step design to provide largest possible stepping surfaces for safe ingress and egress. The bottom steps will be designed with a grip pattern punched into bright aluminum treadplate material to provide support, slip resistance, and drainage. The bottom steps will be a bolt-in design to minimize repair costs should they need to be replaced. The forward cab steps will be a minimum 25.00" wide, and the crew cab steps will be 21.65" wide with a 10.00" minimum depth. The inside cab steps will not exceed 16.50" in height.

The vertical surfaces of the step well will be aluminum treadplate.

CAB EXTERIOR HANDRAILS

A 1.25" diameter slip-resistant, knurled aluminum handrail will be provided adjacent to each cab and crew cab door opening to assist during cab ingress and egress.



STEP LIGHTS

There will be six (6) white LED step lights with chrome housing installed for cab and crew cab access steps.

- One (1) light for the left access steps.
- Two (2) lights for the left side crew cab access steps.
- Two (2) lights for the right side crew cab access steps.
- One (1) light for the right side access step.

In order to ensure exceptional illumination, each light will provide a minimum of 25 foot-candles (fc) covering an entire 15" x 15" square placed ten (10) inches below the light and a minimum of 1.5 fc covering an entire 30" x 30" square at the same ten (10) inch distance below the light.

The lights will be activated when the battery switch is on and the adjacent door is opened.

FENDER CROWNS

Stainless steel fender crowns will be installed at the cab wheel openings.

HANDRAILS BELOW CAB WINDSHIELD

A 7.00" long x 1.25" diameter handrail will be mounted below the front cab windshield, one (1) on each side. The handrails will be extruded aluminum with a ribbed design to provide a positive gripping surface.

CREW CAB WINDOWS

One (1) fixed window with tinted glass will be provided on each side of the cab, to the rear of the front cab door. The windows will be sized to enhance light penetration into the cab interior. The windows will measure 18.70" wide x 23.75" high.



CAB AIR FILTRATION

The vehicle will be equipped with a CrewProtect™ air filtration system to provide purification of the interior air of the cab and crew cab. The multi-stage filtration system will remove particulates, volatile organic compounds, aerosol carrying viruses and bacteria from the air.

System Construction

The housing will be constructed of powder coated stainless steel and will be 12.00" wide x 4.50" high x 20.00" long. The angled surface will be provided with an additional 2.00" of clearance for air flow. The unit will be mounted on a mounting plate, vertically, to the rear of the driver seat.

The expected filter life will be no less than 1,800 active hours of usage (6 months). There will be no additional replacement filters shipped loose with the unit. The filter will be designed to neutralize harmful chemical contaminants and is safe to discard as normal trash with no special handling requirements.

System Operating Conditions

CrewProtect will automatically run when the truck is operating. And will not be required to turn on or off or adjust the flow rate. The fan will operate at 100 CFMs and only 60.2 decibels.

Electrical Wiring/Function

The system will be 12 VDC powered from the vehicle power supply and/or an external 12 VDC source. The system will draw a maximum of 2 amps and have a 5-amp integrated fuse in the wire harness.

CUP HOLDER

There will be four (4) cup holder(s) provided. Each cup holder will have self-adjusting fingers that automatically grip beverage containers of various sizes. A recess in the cup holder will allow it to hold beverage containers with handles.

The cup holder(s) will be located at customer pick-up.

CAB DASH

The driver side dash, switch panel located to the right of the driver, and center console will be an easily removable high impact resistant polymer cover.

The instrument gauge cluster will be surrounded with a high impact ABS plastic contoured to the same shape of the instrument gauge cluster.

The officer side dash will be a flat top design with an upper beveled edge to provide easy maintenance and will be constructed out of aluminum and painted to match the cab interior.

MOUNTING PLATE ON ENGINE TUNNEL

Equipment installation provisions will be installed on the engine tunnel.

A 0.188" smooth aluminum plate will be bolted to the top surface of the engine tunnel. The plate will follow the contour of the engine tunnel and will run the entire length of the engine tunnel. The plate will be spaced off the engine tunnel 1.00" to allow for wire routing below the plate.

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The mounting surface will be painted to match the cab interior.

COMPUTER MOUNTING PLATE

There will be one (1) plate with an angled support located to the left of the officer on the engine tunnel. The plate will be 9.00" wide at the front and 10.00" long. The plate will be spaced up 2.00".

The plate will be constructed of 0.188" aluminum and painted black.

CAB INTERIOR

The cab interior will be constructed of primarily metal (painted aluminum) to withstand the severe duty cycles of the fire service.

The engine tunnel will be padded and covered, on the top and sides, with dark silver gray 36 ounce leather grain vinyl resistant to oil, grease, and mildew.

For durability and ease of maintenance, the cab interior side walls will be painted aluminum. The rear wall will be painted aluminum.

The headliner will be installed in both forward and rear cab sections. Headliner material will be vinyl. A sound barrier will be part of its composition. Material will be installed on an aluminum sheet and securely fastened to interior cab ceiling.

The forward portion of the cab headliner will permit easy access for service of electrical wiring or other maintenance needs.

All wiring will be placed in metal raceways.

CAB INTERIOR UPHOLSTERY

The cab interior upholstery will be 36 oz dark silver gray vinyl.

CAB INTERIOR PAINT

The cab interior metal surfaces, excluding the rear heater panels, will be painted fire smoke gray, vinyl texture paint.

The rear heater panels will be painted black, vinyl textured paint.

CAB FLOOR

The cab and crew cab floor areas will be covered with easy to clean, anti-microbial Lonseal®, Lonplate® II, Gun Black vinyl flooring. The durable top surface material will have an embossed treadplate pattern to provide slip resistance. All seams and edges will be sealed to be impermeable to moisture.

Additionally, the material has a 0.25" thick closed cell foam (no water absorption) under lument which offers a sound dampening material for reducing sound levels.

DEFROST/AIR CONDITIONING SYSTEM

A ceiling mounted combination heater, defroster and air conditioning system will be installed in the cab above the engine tunnel area.

Cab Defroster

A 54,000 BTU heater-defroster unit with 690 SCFM of air flow will be provided inside the cab. The heater-defrost will be installed in the forward portion of the cab ceiling. Air outlets will be strategically located in the cab header extrusion per the following:

- One (1) adjustable will be directed towards the left side cab window
- One (1) adjustable will be directed towards the right side cab window
- Six (6) fixed outlets will be directed at the windshield

The defroster will be capable of clearing 98 percent of the windshield and side glass when tested under conditions where the cab has been cold soaked at 0 degrees Fahrenheit for 10 hours, and a 2 ounce per square inch layer of frost/ice has been able to build up on the exterior windshield. The defroster system will meet or exceed SAE J382 requirements.

Cab/Crew Auxiliary Heater

There will be one (1) 31,000 BTU auxiliary heater with 560 SCFM of air flow provided in each outboard rear facing seat risers with a dual scroll blower. An aluminum plenum incorporated into the cab structure used to transfer heat to the forward positions.

Air Conditioning

A condenser will be a 59,644 BTU output that meets and exceeds the performance specification will be mounted on the radiator. Mounting the condenser below the cab or body would reduce the performance of the system and will not be acceptable.

The air conditioning system will be capable of cooling the average cab temperature from 100 degrees Fahrenheit to 75 degrees Fahrenheit at 50 percent relative humidity within 30 minutes. The cooling performance test will be run only after the cab has been heat soaked at 100 degrees Fahrenheit for a minimum of 4 hours.

The evaporator unit will be installed in the rear portion of the cab ceiling over the engine tunnel. The evaporator will include one (1) high performance heating core, one (1) high performance cooling core with (1) plenum directed to the front and one (1) plenum directed to the rear of the cab. The rear plenum will have a formed plastic cover.

The evaporator unit will have a 52,000 BTU at 690 SCFM rating that meets and exceeds the performance specifications.

Adjustable air outlets will be strategically located on the forward plenum cover per the following:

- Four (4) will be directed towards the seating position on the left side of the cab
- Four (4) will be directed towards the seating position on the right side of the cab

Adjustable air outlets will be strategically located on the rear plenum cover per the following:

- Minimum of five (5) will be directed towards crew cab area

A high efficiency particulate air (HEPA) filter will be included for the system. Access to the filter cover will be secured with four (4) screws.

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The air conditioner refrigerant will be R-134A and will be installed by a certified technician.

CLIMATE CONTROL

An automotive style controller will be provided to control the heat and air conditioning system within the cab. The controller will have three (3) functional knobs for fan speed, temperature, and air flow distribution (front to rear) control.



The system will control the temperature of the cab and crew cab automatically by pushing the center of the fan speed control knob. Rotate the center temperature control knob to set the cab and crew cab temperature.

The AC system will be manually activated by pushing the center of the temperature control knob. Pushing the center of the air flow distribution knob will engage the AC for max defrost, setting the fan speeds to 100 percent and directing all air flow to the overhead forward position.

The system controller will be located within panel position #12.

Gravity Drain Tubes

Two (2) condensate drain tubes will be provided for the air conditioning evaporator. The drip pan will have two (2) drain tubes plumbed separately to allow for the condensate to exit the drip pan. No pumps will be provided.

SUN VISORS

Two (2) smoked Lexan™ sun visors will be provided. The sun visors will be located above the windshield with one (1) mounted on each side of the cab.

There will be a polished stainless steel bracket provided to help secure each sun visor in the stowed position.

GRAB HANDLES

A black rubber covered grab handle will be mounted on the door post of the driver and officer's side cab door to assist in entering the cab. The grab handles will be securely mounted to the post area between the door and windshield.

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ENGINE COMPARTMENT LIGHTS

There will be one (1) Whelen, Model 3SC0CDCR, 12 volt DC, 3.00" white LED light(s) with Whelen, Model 3FLANGE, chrome flange kit(s) installed under the cab to be used as engine compartment illumination.

These light(s) will be activated automatically when the cab is raised.

ACCESS TO ENGINE DIPSTICKS

For access to the engine oil and transmission fluid dipsticks, there will be a door on the engine tunnel, inside the crew cab. The door will be on the rear wall of the engine tunnel, on the vertical surface.

The engine oil dipstick will allow for checking only. The transmission dipstick will allow for both checking and filling.

The door will have a rubber seal for thermal and acoustic insulation. One (1) flush latch will be provided on the access door.



SEATING CAPACITY

The seating capacity in the cab will be four (4).

DRIVER SEAT

A seat will be provided in the cab for the driver. The seat design will be a cam action type, with air suspension. For increased convenience, the seat will include a manual control to adjust the horizontal position (6.00" travel). The manual horizontal control will be a towel-bar style located below the forward part of the seat cushion. To provide flexibility for multiple driver configurations, the seat will have an adjustable reclining back. The seat back will be a high back style with side bolster pads for maximum support. For optimal comfort, the seat will be provided with 17.00" deep foam cushions designed with EVC (elastomeric vibration control).

The seat will be furnished with a 3-point, shoulder type seat belt.

OFFICER SEAT

A seat will be provided in the cab for the passenger. The seat will be a fixed type with no suspension. The seat back will be a high back style with 9 degree fixed recline angle and side bolster pads for

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maximum support. For optimal comfort, the seat will be provided with 17.00" deep foam cushions designed with EVC (elastomeric vibration control).

The seat will be furnished with a 3-point, shoulder type seat belt.

RADIO COMPARTMENT

A radio compartment will be provided under the officer's seat.

The inside compartment dimensions will be 16.00" wide x 7.50" high x 15.00" deep, with the back of the compartment angled up to match the cab structure.

A drop-down door with a chrome plated lift and turn latch will be provided for access.

The compartment will be constructed of smooth aluminum and painted to match the cab interior.

REAR FACING DRIVER SIDE OUTBOARD SEAT

There will be one (1) rear facing seat provided at the driver side outboard position in the crew cab. The seat back will be a high back style with 9 degree fixed recline angle. For optimal comfort, the seat will be provided with 15.00" deep foam cushions designed with EVC (elastomeric vibration control).

The seat will be furnished with a 3-point, shoulder type seat belt.

REAR FACING PASSENGER SIDE OUTBOARD SEAT

There will be one (1) rear facing seat provided at the passenger side outboard position in the crew cab. The seat back will be a high back style with 9 degree fixed recline angle. For optimal comfort, the seat will be provided with 15.00" deep foam cushions designed with EVC (elastomeric vibration control).

The seat will be furnished with a 3-point, shoulder type seat belt.

FORWARD FACING LEFT SIDE CABINET

A forward facing cabinet will be provided in the crew cab located at the left side outboard position.

The cabinet will be 22.00" wide x 30.00" high x 16.25" deep with one (1) Gortite rollup door with satin anodized finish, non-locking. The frame to frame opening of the cabinet will be 19.50" wide x 24.75" high. The minimum clear door opening will be 16.75" wide x 18.87" high.

CLEAR DOOR OPENINGS (F-F = Frame to Frame)					
AMDOR		GORTITE		ROM	
HORIZONTAL	VERTICAL	HORIZONTAL	VERTICAL	HORIZONTAL	VERTICAL
Subtract 2.00" from F-F	Subtract 5.88" from F-F	Subtract 2.75" from F-F	Subtract 4.75" from F-F	Subtract 2.56" from F-F	Subtract 4.50" from F-F

The cabinet will include one (1) infinitely adjustable shelf with a 1.25" up-turned lippainted to match the cab interior.

The cabinet will include no louvers.

The cabinet will be constructed of smooth aluminum and painted to match the cab interior.

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CABINET LIGHT

There will be one (1) white LED strip light installed on the right side of the interior cabinet door opening and one (1) white LED strip light installed on the left side of the interior cabinet door opening. The lighting will be controlled by an automatic door switch.

FORWARD FACING RIGHT SIDE CABINET

A forward facing cabinet will be provided in the crew cab located at the right side outboard position.

The cabinet will be 22.00" wide x 30.00" high x 16.25" deep with one (1) Gortite rollup door with satin anodized finish, non-locking. The frame to frame opening of the cabinet will be 19.50" wide x 24.75" high. The minimum clear door opening of the cabinet will be 16.75" wide x 18.87" high.

CLEAR DOOR OPENINGS (F-F = Frame to Frame)					
AMDOR		GORTITE		ROM	
HORIZONTAL	VERTICAL	HORIZONTAL	VERTICAL	HORIZONTAL	VERTICAL
Subtract 2.00" from F-F	Subtract 5.88" from F-F	Subtract 2.75" from F-F	Subtract 4.75" from F-F	Subtract 2.56" from F-F	Subtract 4.50" from F-F

The cabinet will include one (1) infinitely adjustable shelf with a 1.25" up-turned lip painted to match the cab interior.

The cabinet will include no louvers.

The cabinet will be constructed of smooth aluminum, and painted to match the cab interior.

Cabinet Light

There will be one (1) white LED strip light installed on the right side of the interior cabinet door opening and one (1) white LED strip light installed on the left side of the interior cabinet door opening. The lighting will be controlled by an automatic door switch.

SEAT UPHOLSTERY

All seat upholstery will be leather grain 36 oz dark silver gray vinyl resistant to oil, grease and mildew. The cab will have four (4) seating positions.

SEAT BELTS

All cab and tiller cab (if applicable) seating positions will have red seat belts. To provide quick, easy use for occupants wearing bunker gear, the female buckle and seat belt webbing length will meet or exceed the current edition of NFPA 1901 and CAN/ULC - S515 standards.

The 3-point shoulder type seat belts will include height adjustment. This adjustment will optimize the belts effectiveness and comfort for the seated firefighter. The 3-point shoulder type seat belts will be furnished with dual automatic retractors that will provide ease of operation in the normal seating position.

The 3-point shoulder type belts will also include the ReadyReach D-loop assembly to the shoulder belt system. The ReadyReach feature adds an extender arm to the D-loop location placing the D-loop in a closer, easier to reach location.

Any flip up seats will include a 3-point shoulder type belts only.

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To ensure safe operation, the seats will be equipped with seat belt sensors in the seat cushion and belt receptacle that will activate an alarm indicating a seat is occupied but not buckled.

HELMET STORAGE PROVIDED BY FIRE DEPARTMENT

NFPA 1901, 2016 edition, section 14.1.7.4.1 requires a location for helmet storage be provided.

There is no helmet storage on the apparatus as manufactured. The fire department will provide a location for storage of helmets.

CAB DOME LIGHTS

There will be four (4) dual LED dome lights with black bezels provided. Two (2) lights will be mounted above the inside shoulder of the driver and officer and two (2) lights will be installed and located, one (1) on each side of the crew cab.

The color of the LED's will be red and white.

The white LED's will be controlled by the door switches and the lens switch.

The color LED's will be controlled by the lens switch.

In order to ensure exceptional illumination, each white LED dome light will provide a minimum of 10.1 foot-candles (fc) covering an entire 20.00" x 20.00" square seating position when mounted 40.00" above the seat.

HAND HELD LIGHT

There will be four (4) Streamlight E-Spot FireBox Vehicle Mount Systems, Model 45865, LED hand held flashlights with an orange thermoplastic body provided.

The location will be 2 on top of each EMS cabinet bulbs facing the rear of the truck..

The system will include the handlight, a charger and the vehicle mount system.

CAB INSTRUMENTATION

The cab instrument panel will include gauges, an LCD display, telltale indicator lamps, control switches, alarms, and a diagnostic panel. The function of the instrument panel controls and switches will be identified by a label adjacent to each item. Actuation of the headlight switch will illuminate the labels in low light conditions. Telltale indicator lamps will not be illuminated unless necessary. The cab instruments and controls will be conveniently located within the forward cab section, forward of the driver. The gauge assembly and switch panels are designed to be removable for ease of service and low cost of ownership.

Gauges

The gauge panel will include the following ten (10) ivory faced gauges with chrome bezels to monitor vehicle performance:

- Voltmeter gauge (volts):
 - Low volts (11.8 VDC)
 - Amber caution indicator on the information center with intermittent alarm

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- Amber caution light on gauge assembly
- High volts (15.5 VDC)
 - Amber caution indicator on the information center with intermittent alarm
 - Amber caution light on gauge assembly
- Very low volts (11.3 VDC)
 - Red warning indicator on the information center with a steady alarm
 - Amber caution light on gauge assembly
- Very high volts (16.0 VDC)
 - Red warning indicator on the information center with a steady alarm
 - Amber caution light on gauge assembly
- Engine Tachometer (RPM)
- Speedometer MPH (Major Scale), KM/H (Minor Scale)
- Fuel level gauge (Empty - Full in fractions):
 - Low fuel (1/8 full)
 - Amber caution indicator on the information center with intermittent alarm
 - Amber caution light on gauge assembly
 - Very low fuel (1/32 full)
 - Red caution indicator on the information center with steady alarm
 - Amber caution light on gauge assembly
- Engine Oil pressure Gauge (PSI):
 - Low oil pressure to activate engine warning lights and alarms
 - Red caution indicator on the information center with steady alarm
 - Amber caution light on gauge assembly
- Front Air Pressure Gauges (PSI):
 - Low air pressure to activate warning lights and alarm
 - Red warning indicator on the information center with a steady alarm
 - Amber caution light on gauge assembly
- Rear Air Pressure Gauges (PSI):
 - Low air pressure to activate warning lights and alarm
 - Red warning indicator on the information center with a steady alarm
 - Amber caution light on gauge assembly
- Transmission Oil Temperature Gauge (Fahrenheit):
 - High transmission oil temperature activates warning lights and alarm
 - Amber caution indicator on the information center with intermittent alarm
 - Amber caution light on gauge assembly
- Engine Coolant Temperature Gauge (Fahrenheit):
 - High engine temperature activates an engine warning light and alarms
 - Amber caution indicator on the information center with intermittent alarm
 - Amber caution light on gauge assembly
- Diesel Exhaust Fluid Level Gauge (Empty - Full in fractions):
 - Low fluid (1/8 full)
 - Amber indicator light in gauge dial

All gauges will perform prove out at initial power-up to ensure proper performance.

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Indicator Lamps

To promote safety, the following telltale indicator lamps will be located on the instrument panel in clear view of the driver. The indicator lamps will be "dead-front" design that is only visible when active. The colored indicator lights will have descriptive text or symbols.

The following amber telltale lamps will be present:

- Low coolant
- Trac cntl (traction control) (where applicable)
- Check engine
- Check trans (check transmission)
- Aux brake overheat (Auxiliary brake overheat)
- Air rest (air restriction)
- Caution (triangle symbol)
- Water in fuel
- DPF (engine diesel particulate filter regeneration)
- Trailer ABS (where applicable)
- Wait to start (where applicable)
- HET (engine high exhaust temperature) (where applicable)
- ABS (antilock brake system)
- MIL (engine emissions system malfunction indicator lamp) (where applicable)
- Side roll fault (where applicable)
- Front air bag fault (where applicable)

The following red telltale lamps will be present:

- Warning (stop sign symbol)
- Seat belt
- Parking brake
- Stop engine
- Rack down

The following green telltale lamps will be provided:

- Left turn
- Right turn
- Battery on

The following blue telltale lamp will be provided:

- High beam

Alarms

Audible steady tone warning alarm: A steady audible tone alarm will be provided whenever a warning message is present.

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Audible pulsing tone caution alarm: A pulsing audible tone alarm (chime/chirp) will be provided whenever a caution message is present without a warning message being present.

Alarm silence: Any active audible alarm will be able to be silenced by holding the ignition switch at the top position for three (3) to five (5) seconds. For improved safety, silenced audible alarms will intermittently chirp every 30 seconds until the alarm condition no longer exists. The intermittent chirp will act as a reminder to the operator that a caution or warning condition still exists. Any new warning or caution condition will enable the steady or pulsing tones respectively.

Indicator Lamp and Alarm Prove-Out

A system will be provided which automatically tests telltale indicator lights and alarms located on the cab instrument panel. Telltale indicators and alarms will perform prove-out at initial power-up to ensure proper performance.

Control Switches

For ease of use, the following controls will be provided immediately adjacent to the cab instrument panel within easy reach of the driver. All switches will have backlit labels for low light applications.

Headlight/Parking light switch: A three (3)-position maintained rocker switch will be provided. The first switch position will deactivate all parking and headlights. The second switch position will activate the parking lights. The third switch will activate the headlights.

Panel back lighting intensity control switch: A three (3)-position momentary rocker switch will be provided. Pressing the top half of the switch, "Panel Up" increases the panel back lighting intensity and pressing the bottom half of the switch, "Panel Down" decreases the panel back lighting intensity. Pressing the half or bottom half of the switch several times will allow back lighting intensity to be gradually varied from minimum to maximum intensity level for ease of use.

Ignition switch: A three (3)-position maintained/momentary rocker switch will be provided. The first switch position will turn off and deactivate vehicle ignition. The second switch position will activate vehicle ignition and will perform prove-out on the telltale indicators and alarms for 3 to 5 seconds after the switch is turned on. A green indicator lamp is activated with vehicle ignition. The third momentary position will temporarily silence all active cab alarms. An alarm "chirp" may continue as long as alarm condition exists. Switching ignition to off position will terminate the alarm silence feature and reset function of cab alarm system.

Engine start switch: A two (2)-position momentary rocker switch will be provided. The first switch position is the default switch position. The second switch position will activate the vehicle's engine. The switch actuator is designed to prevent accidental activation.

Hazard switch will be provided on the instrument panel or on the steering column.

Heater, defroster, and air conditioning control panel.

Windshield wiper control will include low, high and intermittent modes.

Turn signal arm: A self-canceling turn signal with high beam headlight will be provided.

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Parking brake control: An air actuated push/pull park brake control valve will be provided.

Chassis horn control: Activation of the chassis horn control will be provided through the center of the steering wheel.

High idle engagement switch: A momentary rocker switch with integral indicator lamp will be provided. The switch will activate and deactivate the high idle function. The "OK To Engage High Idle" indicator lamp must be active for the high idle function to engage. A green indicator lamp integral to the high idle engagement switch will indicate when the high idle function is engaged.

"OK To Engage High Idle" indicator lamp: A green indicator light will be provided next to the high idle activation switch to indicate that the interlocks have been met to allow high idle engagement.

Emergency switching will be controlled by multiple individual warning light switches for various groups or areas of emergency warning lights. An Emergency Master switch provided on the instrument panel that enables or disables all individual warning light switches is included.

An additional "Emergency Master" button will be provided on the lower left hand corner of the gauge panel to allow convenient control of the "Emergency Master" system from inside the driver's door when standing on the ground.

Custom Switch Panels

The design of cab instrumentation will allow for emergency lighting and other switches to be placed within easy reach of the operator thus improving safety. There will be positions for up to four (4) switch panels in the lower instrument console and up to six (6) switch panels in the overhead visor console. All switches have backlit labels for low light conditions.



Diagnostic Panel

A diagnostic panel will be accessible while standing on the ground and located inside the driver's side door left of the steering column. The diagnostic panel will allow diagnostic tools such as computers to

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connect to various vehicle systems for improved troubleshooting providing a lower cost of ownership. Diagnostic switches will allow ABS systems to provide blink codes should a problem exist.

The diagnostic panel will include the following:

- Engine diagnostic port
- Transmission diagnostic port
- ABS diagnostic port
- Roll sensor diagnostic port
- Command Zone USB diagnostic port
- ABS diagnostic switch (blink codes flashed on ABS telltale indicator)
- Diesel particulate filter regeneration switch (where applicable)
- Diesel particulate filter regeneration inhibit switch (where applicable)

Cab LCD Display

A digital four (4)-row by 20-character dot matrix display will be integral to the gauge panel. The display will be capable of showing simple graphical images as well as text. The display will be split into three (3) sections. Each section will have a dedicated function. The upper left section will display the outside ambient temperature.

The upper right section will display the following, along with other configuration specific information:

- Odometer
- Trip mileage
- PTO hours
- Fuel consumption
- Engine hours

The bottom section will display INFO, CAUTION, and WARNING messages. Text messages will automatically activate to describe the cause of an audible caution or warning alarm. The LCD will be capable of displaying multiple text messages should more than one caution or warning condition exist.

AIR RESTRICTION INDICATOR

A high air restriction warning indicator light LCD message with amber warning indicator and audible alarm will be provided.

"DO NOT MOVE APPARATUS" INDICATOR

A flashing red indicator light, located in the driving compartment, will be illuminated automatically per the current NFPA requirements. The light will be labeled "Do Not Move Apparatus If Light Is On."

The same circuit that activates the Do Not Move Apparatus indicator will activate a pulsing alarm when the parking brake is released.

DO NOT MOVE TRUCK MESSAGES

Messages will be displayed on the Command Zone™, color display located within sight of the driver whenever the Do Not Move Truck light is active. The messages will designate the item or items not in the stowed for vehicle travel position (parking brake disengaged).

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The following messages will be displayed (where applicable):

- Do Not Move Truck
- DS Cab Door Open (Driver Side Cab Door Open)
- PS Cab Door Open (Passenger's Side Cab Door Open)
- DS Crew Cab Door Open (Driver Side Crew Cab Door Open)
- PS Crew Cab Door Open (Passenger's Side Crew Cab Door Open)
- DS Body Door Open (Driver Side Body Door Open)
- PS Body Door Open (Passenger's Side Body Door Open)
- Rear Body Door Open
- DS Ladder Rack Down (Driver Side Ladder Rack Down)
- PS Ladder Rack Down (Passenger Side Ladder Rack Down)
- Deck Gun Not Stowed
- Lt Tower Not Stowed (Light Tower Not Stowed)
- Fold Tank Not Stowed (Fold-A-Tank Not Stowed)
- Aerial Not Stowed (Aerial Device Not Stowed)
- Stabilizer Not Stowed
- Steps Not Stowed
- Handrail Not Stowed

Any other device that is opened, extended, or deployed that creates a hazard or is likely to cause major damage to the apparatus if the apparatus is moved will be displayed as a caution message after the parking brake is disengaged.

SWITCH PANELS

The emergency light switch panel will have a master switch for ease of use plus individual switches for selective control. Each switch panel will contain eight (8) membrane-type switches each rated for one million (1,000,000) cycles. Panels containing less than eight (8) switch assignments will include non-functioning black appliques. The built-in switch panels will be located in the lower console or overhead console of the cab.

Additional switch panel(s) will be located in the overhead position(s) above the windshield or in designated locations on the lower instrument panel layout.

The switches will be membrane-type and also act as an integral indicator light. For quick, visual indication the entire surface of the switch will be illuminated white whenever back lighting is activated and illuminated green whenever the switch is active. An active illuminated switch will flash when interlock requirements are not met or device is actively being load managed. For ease of use, a two (2)-ply, scratch resistant laser engraved Gravoply label indicating the use of each switch will be placed in the center of the switch. The label will allow light to pass through the letters for ease of use in low light conditions.

WIPER CONTROL

Wiper control will consist of a two (2)-speed windshield wiper control with intermittent feature and windshield washer controls.

CUSTOMER SUPPLIED RADIO WIRING

There will be one (1) 12 volt combination wiring leads of which each will include one (1) direct battery, one (1) ignition and one (1) negative for use with radio equipment.

Each lead will be 18.00" long and be provided radio compartment under officer's seat. The leads will be clearly marked in a coil and terminate with butt splices.

A breaker rated for 30 amps will be provided for circuit protection of the direct battery lead with a minimum of 10 gauge wire.

A breaker rated for 7.5 amps will be provided for circuit protection of the ignition lead.

The wires will be colored coded as follows:

- red for direct battery
- yellow for ignition
- black for ground

SPARE CIRCUIT

There will be three (3) pair of wires, including a positive and a negative, installed on the apparatus.

The above wires will have the following features:

- The positive wire will be connected directly to the battery power
- The negative wire will be connected to ground
- Wires will be protected to 15 amps at 12 volts DC
- Power and ground will terminate officer side dash area and 1 in each EMS compartment rear wall up high
- Termination will be with 15 amp, power point plug with rubber cover
- Wires will be sized to 125 percent of the protection

The circuit(s) may be load managed when the parking brake is set.

SPARE CIRCUIT

There will be one (1) pair of wires, including a positive and a negative, installed on the apparatus.

The above wires will have the following features:

- The positive wire will be connected directly to the battery power.
- The negative wire will be connected to ground.
- Wires will be protected to 15 amps at 12 volts DC.
- Power and ground will terminate officer's side of dash for customer installed MDT.
- Termination will be with heat shrinkable butt splicing.
- Wires will be sized to 125 percent of the protection.

This circuit(s) may be load managed when the parking brake is set.

SPARE CIRCUIT

There will be two (2) pair of wires, including a positive and a negative, installed on the apparatus.

The above wires will have the following features:

- The positive wire will be connected directly to the battery power.
- The negative wire will be connected to ground.
- Wires will be protected to 2.0 amps at 12 volts DC.
- Power and ground will terminate one on the driver's side of engine tunnel and one on the officer's side of engine tunnel.
- Termination will be a Blue Sea Systems part number 1016 dual USB charger socket.
- Wires will be sized to 125 percent of the protection.

This circuit(s) may be load managed when the parking brake is applied.

SPARE CIRCUIT

There will be one (1) pair of wires, including a positive and a negative, installed on the apparatus.

The above wires will have the following features:

- The positive wire will be connected directly to the battery power.
- The negative wire will be connected to ground.
- Wires will be protected to 20 amps at 12 volts DC.
- Power and ground will terminate on the raceway between the driver's seat and the rear facing seat on the driver's side.
- Termination will be to a Blue Sea System, Model 5025, 6 circuit with negative bus bar. The terminal block will include a cover with circuit labels.

Wires will be sized to 125% of the protection.

This circuit(s) may be load managed when the parking brake is set.

SPARE CIRCUIT

There will be one (1) pair of wires, including a positive and a negative, installed on the apparatus.

The above wires will have the following features:

- The positive wire will be connected directly to the battery switched power.
- The negative wire will be connected to ground.
- Wires will be protected to 15 amps at 12 volts DC.
- Power and ground will terminate officer's side of dash for customer supplied Knox Box.
- Termination will be with heat shrinkable butt splicing.
- Wires will be sized to 125 percent of the protection.

This circuit(s) may be load managed when the parking brake is set.

INFORMATION CENTER

An information center employing a 7.00" diagonal touch screen color LCD display will be encased in an ABS plastic housing.

The information center will have the following specifications:

- Operate in temperatures from -40 to 185 degrees Fahrenheit
- An Optical Gel will be placed between the LCD and protective lens
- Five weather resistant user interface switches
- Grey with black accents
- Sunlight Readable
- Linux operating system
- Minimum of 1000nits rated display
- Display can be changed to an available foreign language
- A LCD display integral to the cab gauge panel will be included as outlined in the cab instrumentation area.
- Programmed to read US Customary

General Screen Design

Where possible, background colors will be used to provide "At a Glance" vehicle information. If information provided on a screen is within acceptable limits, a green background will be used.

If a caution or warning situation arises the following will occur:

- An amber background/text color will indicate a caution condition
- A red background/text color will indicate a warning condition
- The information center will utilize an "Alert Center" to display text messages for audible alarm tones. The text messages will be written to identify the item(s) causing the audible alarm to sound. If more than one (1) text message occurs, the messages will cycle every second until the problem(s) have been resolved. The background color for the "Alert Center" will change to indicate the severity of the "warning" message. If a warning and a caution condition occur simultaneously, the red background color will be shown for all alert center messages.
- A label for each button will exist. The label will indicate the function for each active button for each screen. Buttons that are not utilized on specific screens will have a button label with no text or symbol.

Home/Transit Screen

This screen will display the following:

- Vehicle Mitigation (if equipped)
- Water Level (if the water level system includes compatible communications to the information center)
- Foam Level (if the foam level system includes compatible communications to the information center)
- Seat Belt Monitoring Screen

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- Tire Pressure Monitoring (if equipped)
- Digital Speedometer
- Active Alarms

On Scene Screen

This screen will display the following and will be auto activated with pump engaged (if equipped):

- Battery Voltage
- Fuel
- Oil Pressure
- Coolant Temperature
- RPM
- Water Level (if equipped)
- Foam Level (if equipped)
- Foam Concentration (if equipped)
- Water Flow Rate (if equipped)
- Water Used (if equipped)
- Active Alarms

Virtual Buttons

There will be four (4) virtual switch panel screens that match the overhead and lower lighting and HVAC switch panels.

Page Screen

The page screen will display the following and allow the user to progress into other screens for further functionality:

- Diagnostics
 - Faults
 - Listed by order of occurrence
 - Allows to sort by system
 - Interlock
 - Throttle Interlocks
 - Pump Interlocks (if equipped)
 - Aerial Interlocks (if equipped)
 - PTO Interlocks (if equipped)
 - Load Manager
 - A list of items to be load managed will be provided. The list will provide a description of the load.
 - The lower the priority numbers the earlier the device will be shed should a low voltage condition occur.
 - The screen will indicate if a load has been shed (disabled) or not shed.
 - "At a glance" color features are utilized on this screen.
 - Systems
 - Command Zone

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- Module type and ID number
 - Module Version
 - Input or output number
 - Circuit number connected to that input or output
 - Status of the input or output
 - Power and Constant Current module diagnostic information
 - Foam (if equipped)
 - Pressure Controller (if equipped)
 - Generator Frequency (if equipped)
 - Live Data
 - General Truck Data
- Maintenance
 - Engine oil and filter
 - Transmission oil and filter
 - Pump oil (if equipped)
 - Foam (if equipped)
 - Aerial (if equipped)
- Setup
 - Clock Setup
 - Date & Time
 - 12 or 24 hour format
 - Set time and date
 - Backlight
 - Daytime
 - Night time
 - Sensitivity
 - Unit Selection
 - Home Screen
 - Virtual Button Setup
 - On Scene Screen Setup
 - Configure Video Mode
 - Set Video Contrast
 - Set Video Color
 - Set Video Tint
- Do Not Move
 - The screen will indicate the approximate location and type of item that is open or is not stowed for travel. The actual status of the following devices will be indicated
 - Driver Side Cab Door
 - Passenger's Side Cab Door
 - Driver Side Crew Cab Door
 - Passenger's Side Crew Cab Door
 - Driver Side Body Doors
 - Passenger's Side Body Doors
 - Rear Body Door(s)

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- Ladder Rack (if applicable)
 - Deck Gun (if applicable)
 - Light Tower (if applicable)
 - Hatch Door (if applicable)
 - Stabilizers (if applicable)
 - Steps (if applicable)
- Notifications
 - View Active Alarms
 - Shows a list of all active alarms including date and time of the occurrence is shown with each alarm
 - Silence Alarms - All alarms are silenced
- Timer Screen
- HVAC (if equipped)
- Tire Information (if equipped)
- Ascendant Set Up Confirmation (if equipped)

Button functions and button labels may change with each screen.

COLLISION MITIGATION

There will be a HAAS Alert®, Model HA5 Responder-to-Vehicle (R2V) collision avoidance system provided on the apparatus. The HA5 cellular transponder module will be installed behind the cab windshield, as high and near to the center as practical, to allow clear visibility to the sky. The module dimensions are 5.40" long x 2.70" wide x 1.30" high, and operating temperature range is -40 degree C to 85 degree C.

The transponder will be connected to the vehicle's emergency master circuit and battery direct power and ground.

While responding with emergency lights on, the HA5 transponder sends alert messages via cellular network to motorists in the vicinity of the responding truck that are equipped with the WAZE app.

While on scene with emergency lights on, the HA5 transponder sends road hazard alerts to motorists in the vicinity of the truck that are equipped with the WAZE app.

The HA5 Responder-to-Vehicle (R2V) collision avoidance system will include the transponder and a 5 year cellular plan subscription.

Activation of the HAAS Alert system requires a representative of the customer to accept the End User License Agreement (EULA) via an on-line portal.

VEHICLE DATA RECORDER

There will be a vehicle data recorder (VDR) capable of reading and storing vehicle information provided.

The information stored on the VDR can be downloaded through a USB port mounted in a convenient location determined by cab model. A USB cable can be used to connect the VDR to a laptop to retrieve

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required information. The program to download the information from the VDR will be available to download on-line.

The vehicle data recorder will be capable of recording the following data via hardwired and/or CAN inputs:

- Vehicle Speed - MPH
- Acceleration - MPH/sec
- Deceleration - MPH/sec
- Engine Speed - RPM
- Engine Throttle Position - % of Full Throttle
- ABS Event - On/Off
- Seat Occupied Status - Yes/No by Position
- Seat Belt Buckled Status - Yes/No by Position
- Master Optical Warning Device Switch - On/Off
- Time - 24 Hour Time
- Date - Year/Month/Day

Seat Belt Monitoring System

A seat belt monitoring system (SBMS) will be provided on the Command Zone™ color display. The SBMS will be capable of monitoring up to 10 seating positions indicating the status of each seat position per the following:

- Seat Occupied & Buckled = Green LED indicator illuminated
- Seat Occupied & Unbuckled = Red LED indicator with audible alarm
- No Occupant & Buckled = Red LED indicator with audible alarm
- No Occupant & Unbuckled = No indicator and no alarm

The seat belt monitoring screen will become active on the Command Zone color display when:

- The home screen is active:
 - and there is any occupant seated but not buckled or any belt buckled with an occupant.
 - and there are no other Do Not Move Apparatus conditions present. As soon as all Do Not Move Apparatus conditions are cleared, the SBMS will be activated.

The SBMS will include an audible alarm that will warn that an unbuckled occupant condition exists and the parking brake is released, or the transmission is not in park.

INTERCOM SYSTEM

A five (5) position David Clark intercom system with single radio interface capability at the driver and officer positions and remote radio Push To Talk buttons located within reach of the driver and officer will be provided. The pump operator will have a bulkhead fitting with weatherproof cap and radio interface belt station. Two (2) outboard crew cab positions will have radio listen / intercom only, at both rear facing seats.

The following components will be supplied with this system:

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- One (1) U3805 Radio Cord Junction Module
- Two (2) U3815 Radio Interface Headset Stations
- Two (2) Remote PTT Kits
- One (1) U3800 Intercom Unit (1 outboard Crew)
- One (1) U3801 Headset Intercom Station (1 outboard Crew)
- One (1) C3820 Power Cable
- One (1) 18352G-16 Bulkhead connector Kit (Pump)
- One (1) 12338P-01 Protector cap with lanyard (Pump)
- One (1) C3019B Belt Station (Pump)
- All necessary system cables and connectors

RADIO / INTERCOM INTERFACE INCLUDED

All radio interfaced stations will have universal radio interfaces installed. The interface wiring will be routed within the cab to to radio compartment under officer's seat .

UNDER THE HELMET HEADSET

There will be four (4) under the helmet, headset(s) provided Driver, officer and two rearward facing seats.

Each David Clark, Model H3442, headset will feature:

- 5' Coiled cord
- Noise cancelling electric microphone
- Flexible microphone boom rotates 200 degrees for left or right dress
- Microphone on/off button
- Comfort Gel Earseals
- 23 dB noise reduction



HEADSET HANGERS

There will be four (4) headset hanger(s) installed driver's seat, officer's seat, driver's side outboard rear facing seat and passenger's side outboard rear facing seat. The hanger(s) will meet NFPA 1901, Section 14.1.11, requirement for equipment mounting.

BRACKET, JOHNNY RAY

A Johnny Ray, Model JR-207, radio swivel bracket rated for 14 lbs. will be provided and installed centered on the lower dash towards the windshield.

GPS / MULTIMODE ANTENNA INSTALLATION

There will be one (1) customer supplied GPS / Multimode antenna(s) with stud mount for thick roof material to be installed on the roof. The antenna coax cable(s) will be run per the packing list / instructions provided to the third party installer.

Specific shipping requirements will be followed. The GPS / Multimode antenna will be sent to the apparatus manufacturers preferred installer prior to cab fabrication.

MOBILE RADIO MODEM INSTALLATION

There will be one (1) customer supplied modem(s) sent to the apparatus manufacturers preferred installer to be installed on the vertical surface on the wall directly behind the officers seat.

Specific shipping requirements will be followed.

TWO WAY RADIO INSTALLATION

There will be one (1) customer supplied two way radio(s) sent to the apparatus manufacturers preferred radio installer to be installed on the swivel mount per the shipping document.

No antenna mount or whip will be included in this option.

Specific radio shipping requirements will be followed.

KNOX-BOX®

There will be one (1) Knox-Box(s) sent to the apparatus manufacturers preferred installer and installed at on the engine tunnel adjacent to the front angled part of the blister as per instrument drawing.

Specific shipping requirements will be followed.

A "technician's key" will be provided by the customer for each Knox Box. The box cannot be installed without a compatible technician's key.

RADIO ANTENNA MOUNT

There will be one (1) standard 1.125", 18 thread antenna-mounting base(s) installed best available location on the cab roof with high efficiency, low loss, coaxial cable(s) routed to the radio box. A weatherproof cap will be installed on the mount.



VEHICLE CAMERA SYSTEM

There will be a color vehicle camera system provided with the following:

- One (1) camera located at the rear of the apparatus, pointing rearward, displayed automatically with the vehicle in reverse.
- One (1) camera located on the right side of the apparatus, pointing rearward, displayed automatically with the right side turn signal.
- One (1) camera located on the left side of the apparatus, pointing rearward, displayed automatically with the left side turn signal.

The camera images will be displayed on the driver's vehicle information center display. Audio from the microphone on the rear camera will be not provided.

The following components will be included:

- One (1) SV-CW134639CAI Camera
- Two (2) CS134404CI Side cameras
- One (1) Amplified speaker (if applicable)
- All necessary cables

ELECTRICAL POWER CONTROL SYSTEM

The primary power distribution will be located forward of the officer's seating position and be easily accessible while standing on the ground for simplified maintenance and troubleshooting. Additional electrical distribution centers will be provided throughout the vehicle to house the vehicle's electrical power, circuit protection, and control components. The electrical distribution centers will be located strategically throughout the vehicle to minimize wire length. For ease of maintenance, all electrical distribution centers will be easily accessible. All distribution centers containing fuses, circuit breakers and/or relays will be easily accessible.

Distribution centers located throughout the vehicle will contain battery powered studs for supplying customer installed equipment thus providing a lower cost of ownership.

Circuit protection devices, which conform to SAE standards, will be utilized to protect electrical circuits. All circuit protection devices will be rated per NFPA requirements to prevent wire and component damage when subjected to extreme current overload. General protection circuit breakers will be Type-I automatic reset (continuously resetting). When required, automotive type fuses will be utilized to protect electronic equipment. Control relays and solenoid will have a direct current rating of 125 percent of the maximum current for which the circuit is protected per NFPA.

Solid-State Control System

A solid-state electronics based control system will be utilized to achieve advanced operation and control of the vehicle components. A fully computerized vehicle network will consist of electronic modules located near their point of use to reduce harness lengths and improve reliability. The control system will comply with SAE J1939-11 recommended practices.

The control system will operate as a master-slave system whereas the main control module instructs all other system components. The system will contain patented Mission Critical software that maintains critical vehicle operations in the unlikely event of a main controller error. The system will utilize a Real Time Operating System (RTOS) fully compliant with OSEK/VDX™ specifications providing a lower cost of ownership.

For increased reliability and simplified use the control system modules will include the following attributes:

- Green LED indicator light for module power
- Red LED indicator light for network communication stability status
- Control system self test at activation and continually throughout vehicle operation
- No moving parts due to transistor logic
- Software logic control for NFPA mandated safety interlocks and indicators
- Integrated electrical system load management without additional components
- Integrated electrical load sequencing system without additional components
- Customized control software to the vehicle's configuration
- Factory and field re programmable to accommodate changes to the vehicle's operating parameters
- Complete operating and troubleshooting manuals

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- USB connection to the main control module for advanced troubleshooting

To assure long life and operation in a broad range of environmental conditions, the solid-state control system modules will meet the following specifications:

- Module circuit board will meet SAE J771 specifications
- Operating temperature from -40C to +70C
- Storage temperature from -40C to +70C
- Vibration to 50g
- IP67 rated enclosure (Totally protected against dust and also protected against the effect of temporary immersion between 15 centimeters and one (1) meter)
- Operating voltage from eight (8) volts to 16 volts DC

The main controller will activate status indicators and audible alarms designed to provide warning of problems before they become critical.

Circuit Protection and Control Diagram

Copies of all job-specific, computer network input and output (I/O) connections will be provided with each chassis. The sheets will indicate the function of each module connection point, circuit protection information (where applicable), wire numbers, wire colors and load management information.

On-Board Electrical System Diagnostics

Advanced on-board diagnostic messages will be provided to support rapid troubleshooting of the electrical power and control system. The diagnostic messages will be displayed on the information center located at the driver's position.

The on-board information center will include the following diagnostic information:

- Text description of active warning or caution alarms
- Simplified warning indicators
- Amber caution indication with intermittent alarm
- Red warning indication with steady tone alarm

Prognostics

A software based vehicle tool will be provided to predict remaining life of the vehicles critical fluid and events.

The system will send automatic indications to the Command Zone, color display and/or wireless enabled device to proactively alert of upcoming service intervals.

Prognostics will include:

- Engine oil and filter
- Transmission oil and filter
- Pump oil (if equipped)
- Foam oil (if equipped)
- Aerial oil and filter (if equipped)

Advanced Diagnostics

An advanced, Windows-based, diagnostic software program will be provided for this control system. The software will provide troubleshooting tools to service technicians equipped with a Windows-based computer or wireless enabled device.

The service and maintenance software will be easy to understand and use and have the ability to view system input/output (I/O) information.

Tech Module With WiFi

An in cab module will provide WiFi wireless interface and data logging capability. The WiFi interface will comply with IEEE 802.11 b/g/n capabilities while communicating at 2.4 Gigahertz. The module will provide an external antenna connection allowing a line of site communication range of up to 300 feet with a roof mounted antenna.

The module will transmit a password protected web page to a WiFi enabled device (i.e. most smart phones, tablets or laptops) allowing two levels of user interaction. The firefighter level will allow vehicle monitoring of the vehicle and firefighting systems on the apparatus. The technician level will allow diagnostic access to inputs and outputs installed on the Command Zone, control and information system.

The data logging capability will record faults from the engine, transmission, ABS and Command Zone, control and information systems as they occur. No other data will be recorded at the time the fault occurs. The data logger will provide up to 2 Gigabytes of data storage.

A USB connection will be provided on the Tech Module. It will provide a means to download data logger information and update software in the device.

Indicator Light and Alarm Prove-Out System

A system will be provided which automatically tests basic indicator lights and alarms located on the cab instrument panel.

Voltage Monitor System

A voltage monitoring system will be provided to indicate the status of the battery system connected to the vehicle's electrical load. The system will provide visual and audible warning when the system voltage is below or above optimum levels.

The alarm will activate if the system falls below 11.8 volts DC for more than two (2) minutes.

Power and Ground Studs

Spare circuits will be provided in the primary distribution center for two-way radio equipment.

The spare circuits will consist of the following:

- One (1) 12-volt DC, 30 amp battery direct spare
- One (1) 12-volt DC ground and un-fused switched battery stud located in or adjacent to the power distribution center

Enhanced Software

The solid-state control system will include the following software enhancements:

All perimeter lights and scene lights (where applicable) will be deactivated when the parking brake is released.

Cab and crew cab dome lights will remain on for 10 seconds for improved visibility after the doors close. The dome lights will dim after 10 seconds or immediately if the vehicle is put into gear.

Cab and crew cab perimeter lights will remain on for 10 seconds for improved visibility after the doors close. The dome lights will dim after 10 seconds or immediately if the vehicle is put into gear.

EMI/RFI Protection

To prevent erroneous signals from crosstalk contamination and interference, the electrical system will meet, at a minimum, SAE J551/2, thus reducing undesired electromagnetic and radio frequency emissions. An advanced electrical system will be used to ensure radiated and conducted electromagnetic interference (EMI) or radio frequency interference (RFI) emissions are suppressed at their source.

The apparatus will have the ability to operate in the electromagnetic environment typically found in fire ground operations to ensure clean operations. The electrical system will meet electromagnetic susceptibility conforming to SAE J1113/25 Region 1, Class C EMR for 10Khz-1GHz to 100 Volts/Meter. The vehicle OEM, upon request, will provide EMC testing reports from testing conducted on an entire apparatus and will certify that the vehicle meets SAE J551/2 and SAE J1113/25 Region 1, Class C EMR for 10Khz-1GHz to 100 Volts/Meter requirements.

EMI/RFI susceptibility will be controlled by applying appropriate circuit designs and shielding. The electrical system will be designed for full compatibility with low-level control signals and high-powered two-way radio communication systems. Harness and cable routing will be given careful attention to minimize the potential for conducting and radiated EMI/RFI susceptibility.

ELECTRICAL

All 12-volt electrical equipment installed by the apparatus manufacturer will conform to modern automotive practices. All wiring will be high temperature crosslink type. Wiring will be run, in loom or conduit, where exposed and have grommets where wire passes through sheet metal. Automatic reset circuit breakers will be provided which conform to SAE Standards. Wiring will be color, function and number coded. Function and number codes will be continuously imprinted on all wiring harness conductors at 2.00" intervals. Exterior exposed wire connectors will be positive locking, and environmentally sealed to withstand elements such as temperature extremes, moisture and automotive fluids.

Electrical wiring and equipment will be installed utilizing the following guidelines:

1. All holes made in the roof will be caulked with silicon. Large fender washers, liberally caulked, will be used when fastening equipment to the underside of the cab roof.

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2. Any electrical component that is installed in an exposed area will be mounted in a manner that will not allow moisture to accumulate in it. Exposed area will be defined as any location outside of the cab or body.
3. Electrical components designed to be removed for maintenance will not be fastened with nuts and bolts. Metal screws will be used in mounting these devices. Also a coil of wire will be provided behind the appliance to allow them to be pulled away from mounting area for inspection and service work.
4. Corrosion preventative compound will be applied to all terminal plugs located outside of the cab or body. All non-waterproof connections will require this compound in the plug to prevent corrosion and for easy separation (of the plug).
5. All lights that have their sockets in a weather exposed area will have corrosion preventative compound added to the socket terminal area.
6. All electrical terminals in exposed areas will have silicon (1890) applied completely over the metal portion of the terminal.

All lights and reflectors, required to comply with Federal Motor Vehicle Safety Standard #108, will be furnished. Rear identification lights will be recessed mounted for protection. Lights and wiring mounted in the rear bulkheads will be protected from damage by installing a false bulkhead inside the rear compartments.

An operational test will be conducted to ensure that any equipment that is permanently attached to the electrical system is properly connected and in working order.

The results of the tests will be recorded and provided to the purchaser at time of delivery.

BATTERY SYSTEM

There will be four (4) 12 volt Exide®, Model 31S950X3W, batteries that include the following features will be provided:

- 950 CCA, cold cranking amps
- 190 amp reserve capacity
- High cycle
- Group 31
- Rating of 3800 CCA at 0 degrees Fahrenheit
- 760 minutes of reserve capacity
- Threaded stainless steel studs

Each battery case will be a black polypropylene material with a vertically ribbed container for increased vibration resistance. The cover will be manifold vented with a central venting location to allow a 45 degree tilt capacity.

The inside of each battery will consist of a "maintenance free" grid construction with poly wrapped separators and a flooded epoxy bottom anchoring for maximum vibration resistance.

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BATTERY SYSTEM

There will be a single starting system with an ignition switch and starter button provided and located on the cab instrument panel.

MASTER BATTERY SWITCH

There will be a master battery switch provided within the cab within easy reach of the driver to activate the battery system.

An indicator light will be provided on the instrument panel to notify the driver of the status of the battery system.

BATTERY COMPARTMENTS

Batteries will be placed on non-corrosive mats and stored in well ventilated compartments located under the cab.

Heavy-duty, 2/0 gauge, color coded battery cables will be provided. Battery terminal connections will be coated with anti-corrosion compound.

Battery solenoid terminal connections will be encapsulated with semi-permanent rubberized compound.

JUMPER STUDS

One (1) set of battery jumper studs with plastic color-coded covers will be included on the battery compartments.

BATTERY CHARGER/ AIR COMPRESSOR

There will be a Kussmaul™ Pump Plus 1200, Model # 52-21-1100, single output battery charger/air compressor system will be provided. A display bar graph indicating the state of charge will be included.

The automatic charger will maintain one (1) set of batteries with a maximum output current of 40 amps.

The 12-volt air compressor will be installed to maintain the air system pressure when the vehicle is not in use.

There will be an auto pump timer installed between the pressure switch and the pump that will allow the pump to run for one hour than shut down for one hour.

The battery charger will be wired to the AC shoreline inlet through an AC receptacle adjacent to this battery charger.

Battery charger/compressor will be located behind the officer's seat, with a cover painted to match the cab interior.

The battery charger indicator will be displayed through the window behind the driver seat. The display will be mounted on a bracket so that it is visible from outside the apparatus in the lower corner of the window.

AUTO EJECT FOR SHORELINE

There will be one (1) Kussmaul™, Model 091-55-20-120, 20 amp 120 volt AC shoreline inlet(s) provided to operate the dedicated 120 volt AC circuits on the apparatus.

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The shoreline inlet(s) will include yellow weatherproof flip up cover(s).

There will be a release solenoid wired to the vehicle's starter to eject the AC connector when the engine is starting.

The shoreline(s) will be connected to Kussmaul Pump Plus & recepts in D1, P2 & EMS compartments.

There will be a mating connector body supplied with the loose equipment.

There will be a label installed near the inlet(s) that state the following:

- Line Voltage
- Current Rating (amps)
- Phase
- Frequency

The shoreline receptacle will be located on the driver side of cab, to the front of cab door.

ALTERNATOR

A Delco Remy®, Model 55SI, alternator will be provided. It will have a rated output current of 430 amps, as measured by SAE method J56. The alternator will feature an integral regulator and rectifier system that has been tested and qualified to an ambient temperature of 257 degrees Fahrenheit (125 degrees Celsius). The alternator will be connected to the power and ground distribution system with heavy-duty cables sized to carry the full rated alternator output.

ELECTRONIC LOAD MANAGER

An electronic load management (ELM) system will be provided that monitors the vehicles 12-volt electrical system, automatically reducing the electrical load in the event of a low voltage condition, and automatically restoring the shed electrical loads when a low voltage condition expires. This ensures the integrity of the electrical system.

For improved reliability and ease of use, the load manager system will be an integral part of the vehicle's solid state control system requiring no additional components to perform load management tasks. Load management systems which require additional components will not be allowed.

The system will include the following features:

- System voltage monitoring.
- A shed load will remain inactive for a minimum of five minutes to prevent the load from cycling on and off.
- Sixteen available electronic load shedding levels.
- Priority levels can be set for individual outputs.
- High Idle to activate before any electric loads are shed and deactivate with the service brake.
 - If enabled:
 - "Load Man Hi-Idle On" will display on the information center.
 - Hi-Idle will not activate until 30 seconds after engine start up.
- Individual switch "on" indicator to flash when the particular load has been shed.

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- The information center indicates system voltage.

The information center, where applicable, includes a "Load Manager" screen indicating the following:

- Load managed items list, with priority levels and item condition.
- Individual load managed item condition:
 - ON = not shed
 - SHED = shed

SEQUENCER

A sequencer will be provided that automatically activates and deactivates vehicle loads in a preset sequence thereby protecting the alternator from power surges. This sequencer operation will allow a gradual increase or decrease in alternator output, rather than loading or dumping the entire 12 volt load to prolong the life of the alternator.

For improved reliability and ease of use, the load sequencing system will be an integral part of the vehicle's solid state control system requiring no additional components to perform load sequencing tasks. Load sequencing systems which require additional components will not be allowed.

Emergency light sequencing will operate in conjunction with the emergency master light switch. When the emergency master switch is activated, the emergency lights will be activated one by one at half-second intervals. Sequenced emergency light switch indicators will flash while waiting for activation.

When the emergency master switch is deactivated, the sequencer will deactivate the warning light loads in the reverse order.

Sequencing of the following items will also occur, in conjunction with the ignition switch, at half-second intervals:

- Cab Heater and Air Conditioning
- Crew Cab Heater (if applicable)
- Crew Cab Air Conditioning (if applicable)
- Exhaust Fans (if applicable)
- Third Evaporator (if applicable)

HEADLIGHTS

There will be four (4) JW Speaker®, Model 8800, 4" x 6" rectangular LED lights with heated lens mounted in the front quad style, chrome housing on each side of the cab grille:

- the outside light on each side will contain a part number 055***1 low beam module
- the inside light on each side will contain a part number 055***1 high beam module
- the headlights to include chrome bezels

The low beam lights will be activated when the headlight switch is on.

The high beam and low beam lights will be activated when the headlight switch and the high beam switch is activated.

DIRECTIONAL LIGHTS

There will be two (2) Whelen 600 series, LED combination directional/marker lights provided. The lights will be located on the outside cab corners, next to the headlights.

The color of the lenses will be the same color as the LED's.

INTERMEDIATE LIGHT

There will be two (2) Weldon, Model 9186-8580-29, amber LED turn signal marker lights furnished, one (1) each side, in the rear fender panel. The light will double as a turn signal and marker light.

CAB CLEARANCE/MARKER/ID LIGHTS

There will be seven (7) amber LED lights provided per the following:

- Three (3) amber LED identification lights will be installed in the center of the cab above the windshield.
- Two (2) amber LED clearance lights will be installed, one (1) on each outboard side of the cab above the windshield as close to the outside of the apparatus as practical.
- Two (2) amber LED clearance lights will be installed, one (1) on each side of the cab as high and far forward as practical.

The lights will be installed without guards.

FRONT CAB SIDE CLEARANCE/MARKER LIGHTS

There will be two (2) Truck-Lite®, Model 19036Y, amber LED lights installed to the outside of the chrome wrap around bezel, one (1) on each side of the cab.

The lights will activate as additional directional lights with the corresponding directional circuit.

REAR CLEARANCE/MARKER/ID LIGHTING

There will be three (3) Truck-Lite®, Model 26250R, LED lights used as identification lights located at the rear of the apparatus per the following:

- As close as practical to the vertical centerline
- Centers spaced not less than 6.00" or more than 12.00" apart
- Red in color
- All at the same height

There will be two (2) Truck-Lite, Model 26250R, LED lights installed at the rear of the apparatus used as clearance lights located at the rear of the apparatus per the following:

- To indicate the overall width of the vehicle
- One (1) each side of the vertical centerline
- As near the top as practical
- Red in color
- To be visible from the rear
- All at the same height

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There will be two (2) Truck-Lite, Model 26250R, LED lights installed on the side of the apparatus as marker lights as close to the rear as practical per the following:

- To indicate the overall length of the vehicle
- One (1) each side of the vertical centerline
- As near the top as practical
- Red in color
- To be visible from the side
- All at the same height

There will be two (2) red reflectors located on the rear of the truck facing to the rear. One (1) each side, as far to the outside as practical, at a minimum of 15.00", but no more than 60.00", above the ground.

There will be two (2) red reflectors located on the side of the truck facing to the side. One (1) each side, as far to the rear as practical, at a minimum of 15.00", but no more than 60.00", above the ground.

Per FMVSS 108 and CMVSS 108 requirements.

REAR FMVSS LIGHTING

There will be two (2) wrap around tri-cluster LED modules provided on the face of the rear body compartments.

Each tri-cluster will include the following:

- One (1) LED stop/tail light
- One (1) LED directional light
- One (1) LED backup light

LICENSE PLATE BRACKET

There will be one (1) license plate bracket located below the tailboard on a removable bolt-on bracket located on driver's side.

A white LED light will illuminate the license plate. A stainless steel light shield will be provided over the light that will direct illumination downward, preventing white light to the rear.

BACK-UP ALARM

A PRECO, Model 1040, solid-state electronic audible back-up alarm that actuates when the truck is shifted into reverse will be provided. The device will sound at 60 pulses per minute and automatically adjust its volume to maintain a minimum ten (10) dBA above surrounding environmental noise levels.

CAB PERIMETER SCENE LIGHTS

There will be four (4) TecNiq, Model T10-LC00-1, 15.00" lights with white LEDs and 45 degree stainless steel brackets provided per the following:

- one (1) under the driver's side cab access step
- one (1) under the passenger's side cab access step
- one (1) under the passenger's side crew cab access step

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- one (1) under the driver's side crew cab access step

The lights will be activated when the battery switch is on, when the respective door is open and by the same control selected for the body perimeter lights.

PUMP HOUSE PERIMETER LIGHTS

There will be two (2) TecNiq, Model T10-LC00-1, 15.00" white 12 volt DC LED weatherproof strip lights provided under the pump panel running boards, one (1) each side.

The lights will be controlled by the same means as the body perimeter lights.

BODY PERIMETER SCENE LIGHTS

There will be two (2) TecNiq, Model T10-LC00-1, 15.00" 12 volt DC LED strip lights provided at the rear step area of the body, one (1) each side shining to the rear.

The perimeter scene lights will be activated when the parking brake is applied.

STEP LIGHTS

There will be four (4) white LED step lights provided at the rear to illuminate the tailboard/step area.

In order to ensure exceptional illumination, each light will provide a minimum of 25 foot-candles (fc) covering an entire 15" x 15" square placed ten (10) inches below the light and a minimum of 1.5 fc covering an entire 30" x 30" square at the same ten (10) inch distance below the light.

These step lights will be actuated with the perimeter scene lights.

All other steps on the apparatus will be illuminated per the current edition of NFPA 1901.

12 VOLT LIGHTING

There will be a HiViz Model FT-B-X-72-*-* , 2.56" high x 72.00" long x 3.31" deep 21,251.57 effective lumens 12 volt DC LED light provided on the front cab roof as far forward as practical. The light will include white scene LEDs. The white LEDs will be configured with a combination of flood and spot optics.

The painted parts of the light housing and brackets to be white.

The scene LEDs will be activated by a switch at the driver's side switch panel.

The white LEDs may be load managed when the parking brake is applied.

12 VOLT DC SCENE LIGHTS

There will be one (1) Whelen® Model P*H1* , 8,875 lumens 12 volt DC powered lights with white LEDs and a combination of flood and spot optics installed on the apparatus located, passenger's side of cab behind crew cab door up high.

The light(s) to be installed in a 15 degree vertical recessed bracket.

The painted parts of this light assembly to be white.

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The lights will be activated by a switch at the driver's side switch panel.

The light(s) may be load managed when the parking brake is applied.

12 VOLT DC SCENE LIGHTS

There will be one (1) Whelen® Model P*H1*, 8,875 lumens 12 volt DC powered lights with white LEDs and a combination of flood and spot optics installed on the apparatus located, driver's side of cab behind crew cab door up high.

The light(s) to be installed in a 15 degree vertical recessed bracket.

The painted parts of this light assembly to be white.

The lights will be activated by a switch at the driver's side switch panel.

The light(s) may be load managed when the parking brake is applied.

12 VOLT LIGHTING

There will be one (1) Whelen® Model P*H1*, 8,875 lumens 12 volt DC LED light(s) with a combination of flood and spot optics installed on the apparatus located, passenger's side of hatch compartment towards the rear.

The painted parts of this light assembly to be white.

The light(s) to be installed in a 15 degree vertical recessed bracket.

The lights will be controlled by the same control that has been selected for the passenger's side scene light(s).

The light(s) may be load managed when the parking brake is applied.

12 VOLT LIGHTING

There will be one (1) Whelen® Model P*H1*, 8,875 lumens 12 volt DC LED light(s) with a combination of flood and spot optics installed on the apparatus located, driver's side of hatch compartment towards the rear.

The painted parts of this light assembly to be white.

The light(s) to be installed in a 15 degree vertical recessed bracket.

The lights will be controlled by the same control that has been selected for the driver's side scene light(s).

The light(s) may be load managed when the parking brake is applied.

12 VOLT LIGHTING

There will be two (2) Whelen® Model P*H1*, 8,875 lumens 12 volt DC LED light(s) with a combination of flood and spot optics installed on the apparatus located, rear of the body up high on each side.

The painted parts of this light assembly to be white.

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The light(s) to be installed in a 15 degree vertical recessed bracket.

The lights will be controlled by a switch at the driver's side switch panel.

The light(s) may be load managed when the parking brake is applied.

HOSE BED LIGHTS

There will be white 12 volt DC LED light strips provided to light the hose bed area. Hose bed lights will meet the photometric levels listed in NFPA 1901 for Hose Bed lighting requirements.

- Light strip(s) will be installed below lower support tube on the left side of the hose bed cover.
- Light strip(s) will be installed below lower support tube on the right side of the hose bed cover.

The lights will be activated when the hosebed cover is raised.

WALKING SURFACE LIGHT

There will be Model FRP, 4" round black 12 volt DC LED floodlight(s) with bolt mount provided to illuminate the entire designated walking surface on top of the body.

The light(s) will be activated when the body step lights are on.

WATER TANK

Booster tank will have a capacity of 500 gallons and be constructed of UV stabilized ultra high impact polypropylene plastic by a manufacturer with a minimum of 20 years experience building tanks, is ISO 9001:2000 certified in all its manufacturing facilities, and has over 50,000 tanks in service.

The booster tank will be a form-fitting design that serves to keep the tank height as low as possible. The tank will be no wider than 39" at the base to allow for greater compartment depth and no wider than 53" at the top.

Tank joints and seams will be nitrogen welded inside and out.

Tank will be baffled in accordance with NFPA Bulletin 1901 requirements.

Baffles will have vent openings at both the top and bottom to permit movement of air and water between compartments.

Longitudinal partitions will be constructed of .38" polypropylene plastic and will extend from the bottom of the tank through the top cover to allow for positive welding.

Transverse partitions will extend from 4.00" off the bottom of the tank to the underside of the top cover.

All partitions will interlock and will be welded to the tank bottom and sides.

Tank top will be constructed of .50" polypropylene. It will be recessed .38" and will be welded to the tank sides and the longitudinal partitions.

Tank top will be sufficiently supported to keep it rigid during fast filling conditions.

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Construction will include 2.00" polypropylene dowels spaced no more than 30.00" apart and welded to the transverse partitions. Two (2) of the dowels will be drilled and tapped (.50" diameter, 13.00" deep) to accommodate lifting eyes.

A sump that will be sized dependent on the tank to pump plumbing will be provided at the bottom of the water tank.

Sump will include a drain plug and the tank outlet.

Tank will be installed in a fabricated cradle assembly constructed of structural steel.

Sufficient crossmembers will be provided to properly support bottom of tank. Crossmembers will be constructed of steel bar channel or rectangular tubing.

Tank will "float" in cradle to avoid torsional stress caused by chassis frame flexing. Rubber cushions, .50" thick x 3.00" wide, will be placed on all horizontal surfaces that the tank rests on.

Stops or other provision will be provided to prevent an empty tank from bouncing excessively while moving vehicle.

Mounting system to be approved by the tank manufacturer.

Fill tower will be constructed of .50" polypropylene and will be a minimum of 8.00" wide x 14.00" long.

Fill tower will be furnished with a .25" thick polypropylene screen and a hinged cover.

An overflow pipe, constructed of 4.00" schedule 40 polypropylene, will be installed approximately halfway down the fill tower and extend through the water tank and exit to the rear of the rear axle.

BODY HEIGHT

The height of the body will be 92.00" from the bottom of the body to the top of the body.

HOSE BED

The hose bed will be fabricated of .125"-5052 aluminum with a nominal 38,000 psi tensile strength.

Flooring of the hose bed will be removable aluminum grating with the top surface corrugated to aid in hose aeration. The grating slats will be a minimum of 0.50" x 4.50" with spacing between slats for hose ventilation.

The hose bed walls will be unpainted and with a brushed finish.

Hose bed will accommodate 1,000' of 5" LDH & 500' of 2.5" DJ.

HOSE BED DIVIDER

One (1) adjustable hosebed divider will be furnished for separating hose.

Each divider will be constructed of a .125" brushed aluminum sheet fitted and fastened into a slotted, 1.50" diameter radius extrusion along the top, bottom, and rear edge.

Divider will be fully adjustable by sliding in tracks, located at the front and rear of the hose bed.

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Divider will be held in place by tightening bolts, at each end.

Acorn nuts will be installed on all bolts in the hose bed which have exposed threads.

HOSE BED COVER

A two (2) section hose bed cover, constructed of .125" bright aluminum treadplate will be furnished. The cover will be hinged with full length stainless steel piano hinge. The sides will be slanted down. A stationary bridgework support assembly will be provided at the rear to support the cover.

The cover will be reinforced so that it can support the weight of a man walking on the cover.

The cover is designed with the left cover opening first.

If access to the water tank fill tower is blocked by the hose bed cover, then a hinged door will be provided in it so that the tank may be filled without raising cover doors.

Chrome grab handles and four (4) gas filled cylinders will be provided to assist in opening and closing the cover. A handrail is to be provided at the rear, in the center of the support, to assist in opening the cover.

The hose bed cover will be connected to the Do Not Move Truck indicator. The light will be activated if the cover is not in the stowed position and the parking brake is released.

A red vinyl flap will be installed on the rear of the bright aluminum treadplate hose bed cover with quarter turn fasteners. A chain weight and a spring clip-and-hook hold downs will be provided at the bottom of the cover.

RUNNING BOARDS

A running board will be provided on each side of the front body to allow access to the backboard/crosslay storage area. The running boards will be designed with a grip pattern punched into .125" bright aluminum treadplate material providing support, slip resistance, and drainage.

The runningboard will have a flip out section design that allows easier access to the full width equipment area above. The flip out section will be tied to the "do not move truck indicator" with a sensor when it is flipped out. There will be a latch provided that secures the flip out section when not in use.

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TAILBOARD

The tailboard will be constructed of .125" bright aluminum treadplate and spaced .50" from the body, as well as supported by a structural steel assembly.

The tailboard area will be 12.00" deep and full width of the body.

The exterior side will be flanged down and in for increased rigidity of tailboard structure.

REAR WALL, BODY MATERIAL, PUC

The rear wall will be smooth and the same material as the body.

The rear wall body material will be painted. Unpainted aluminum overlays will be provided to allow for chevron application and to provide continuously smooth rear wall panels.

The outboard edges of the rear wall will be trimmed in polished stainless steel.

TOW BAR

A tow bar will be installed under the tailboard at center of truck.

Tow bar will be fabricated of 1.00" CRS bar rolled into a 3.00" radius.

Tow bar assembly will be constructed of .38" structural angle. When force is applied to the bar, it will be transmitted to the frame rail.

Tow bar assembly will be designed and positioned to allow up to a 30-degree upward angled pull of 17,000 lb, or a 20,000 lb straight horizontal pull in line with the centerline of the vehicle.

Tow bar design will have been fully tested and evaluated using strain gauge testing and finite element analysis techniques.

COMPARTMENTATION

The apparatus body will be built of aluminum construction using a minimum of 0.125" thick, 5052-H32 aluminum.

The body panel assembly will be constructed in a fixture and consist of formed sheet metal for the front and rear bulkheads, door frames, floors, ceilings, and back walls. These parts will be welded together to ensure greatest longevity with no visible welds in compartment interior.

Welded construction will consist of 1.00" x 0.38" engineered plug weld holes that control the size, location, and the amount of weld required. The bodies will be assembled and welded from engineered prints that call out the size, location, and type of weld required.

In structural areas the sheet metal components will have flanges for welding. No butt joints will be allowed. Gussets and support posts will be provided for additional strength where needed.



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The fender panel will be an integral part of the complete welded body assembly. All light and compartment holes are pre punched prior to construction to provide accuracy and rounded corners to prevent stress risers in the material.

Circular fender liners will be provided. For prevention of paint chips and ease of suspension maintenance the fender liners will be formed from brush finished 304L stainless steel, be unpainted, and removable for suspension maintenance.

Side compartment flooring will be of the sweep out design with the floor minimum of 1.00" higher than the compartment door lip.

Drip protection will be provided above the doors by means of aluminum extrusion, or formed bright aluminum treadplate.

The top of the compartment will be sheet metal and covered with bright aluminum treadplate rolled over the edges on the front, and rear. These covers will have the corners welded.

The aluminum treadplate covers will not make up the ceiling of the compartment.

All screws and bolts, which are not Grade 8, will be stainless steel and where they protrude into a compartment will have acorn nuts on the ends to prevent injury.

UNDERBODY SUPPORT SYSTEM

Due to the severe loading requirements of this pumper a method of body and compartment support suitable for the intended load will be provided.

The backbone of the body support system will begin with the chassis frame rails which is the strongest component of the chassis and is designed for sustaining maximum loads. The support system will include lateral frame rail extensions that are formed from 0.375" 80k high strength steel and bolted to the chassis frame rails with 0.625" diameter Grade 8 bolts.

The vertical and horizontal members of the frame rail extensions are to be reinforced with welded gussets and extend to the outside edge of the body. The lateral frame extensions will be electro-coated for superior corrosion resistance.

The floating substructure will be separated from the lateral frame extensions with neoprene elastomer isolators. These isolators will reduce the natural flex stress of the chassis from being transmitted to the body, and absorb road shock and vibration.

The isolators will have a broad load range, proven viability in vehicular applications, be of a fail safe design and allow for all necessary movement in three (3) transitional and rotational modes.

The neoprene isolators will be installed in a modified V three (3)-point mounting pattern to reduce the natural flex of the chassis being transmitted to the body. Two (2) 3.50" diameter isolators are provided at the front of the body near the centerline of the vehicle above the chassis frame. A minimum of eight (8) - 2.55" diameter isolators will be provided, two (2) under each front compartment and two (2) under each rear side compartment. A minimum of four (4) 3.50" diameter isolators will be provided under the rear compartment.

AGGRESSIVE WALKING SURFACE

All exterior surfaces designated as stepping, standing, and walking areas will comply with the required average slip resistance of the current NFPA standards. Documentation of the material meeting the standard will be provided at time of delivery.

LOUVERS

All body compartments will have a minimum of one (1) set of automotive style, dust resistant louvers pressed into a wall. The louvers will incorporate a one (1)-way rubber valve that provides airflow out of the compartment and prevents water and dirt from gaining access to the compartment. Compartments over the wheel will not have louvers.

TESTING OF BODY DESIGN

Body structural analysis will be fully tested. Proven engineering and test techniques such as finite element analysis and strain gauging have been performed with special attention given to fatigue life and structural integrity of the body and substructure.

The body will be tested while loaded to its greatest in-service weight.

The criteria used during the testing procedure will include:

- Raising opposite corners of the vehicle tires 9.00" to simulate the twisting a truck may experience when driving over a curb.
- Making a 90 degree turn, while driving at 20 mph to simulate aggressive driving conditions.
- Driving the vehicle on at 35 mph on a washboard road.
- Driving the vehicle at 55 mph on a smooth road.
- Accelerating the vehicle fully, until reaching the approximate speed of 45 mph on rough pavement.

Evidence of the actual testing techniques will be made available upon request.

FEA will have been performed on all substructure components.

LEFT SIDE COMPARTMENTATION

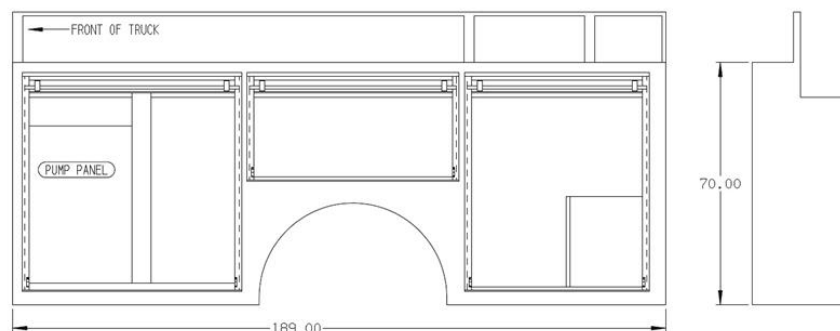
The left side compartmentation will consist of three rollup door compartments.

A full height, rollup door compartment ahead of the rear wheels will be provided. The pump operator's panel will be located in this compartment. The partition to the right of the pump operator's panel will be 2.50" in width. The interior dimensions of the remaining space in this compartment will be 25.25" wide x 53.63" high x 26.00" deep. The clear door opening will be a minimum of 59.25" wide x 53.63" high.

A rollup door compartment over the rear wheels will be provided. The interior dimensions of this compartment will be 60.00" wide x 22.88" high x 26.00" deep. The clear door opening will be a minimum of 57.25" wide x 22.88" high.

A full height, rollup door compartment behind the rear wheels will be provided. The interior dimensions of this compartment will be 51.75" wide x 54.63" high x 26.00" deep. The clear door opening will be a minimum of 49.25" wide x 54.63" high.

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COMPARTMENT	MINIMUM CLEAR DOOR OPENINGS					
	AMDOR		GORTITE		ROM	
	HORIZONTAL	VERTICAL	HORIZONTAL	VERTICAL	HORIZONTAL	VERTICAL
Ahead of axle	60.00	53.63	59.25	53.63	59.44	53.63
Over axle	58.00	22.88	57.25	22.88	57.44	22.88
Behind axle	50.00	54.63	49.25	54.63	49.44	54.63

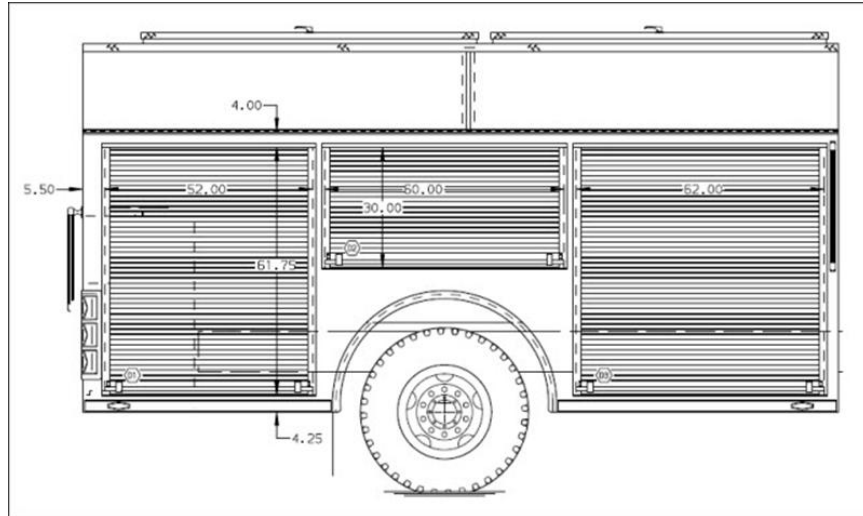
The roll up door spool will be installed in a recess above the compartment ceiling. All compartments will include a drip pan below the roll of the door. The drip pan will be installed level with the compartment ceiling. The interior height of the compartments will be measured from the compartment floor to the ceiling. The depth of the compartments will be measured from the back wall to the inside of the door frame.

Closing of the doors will not require releasing, unlocking, or unlatching any mechanism and will easily be accomplished with one hand.

RIGHT SIDE COMPARTMENTATION

A full height, jump off compartment with a roll-up door ahead of the rear wheels will be provided, as convenient large storage compartment for often used items for the crew. The interior dimensions of this compartment will be 62.00" wide x 54.50" high x 25.88" deep. The area behind the roll up door spool will be notched for exterior storage or larger capacity water tank tee. The depth of the compartment will be calculated with the compartment door closed. The compartment interior will be fully open from the compartment ceiling to the compartment floor and designed so that no permanent dividers are required between the upper and lower sections. The clear door opening of this compartment will be 59.00" wide x 54.50 high.

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Closing of the door will not require releasing, unlocking, or unlatching any mechanism and will easily be accomplished with one hand.

A roll-up door compartment over the rear wheels will be provided. The interior dimensions of this compartment will be 60.00" wide x 23.00" high x 25.88" deep. The area behind the roll up door spool will be notched for exterior storage or larger capacity water tank tee. The depth of the compartment will be calculated with the compartment door closed. The clear door opening of this compartment will be 57.00" wide x 23.00" high.

Closing of the door will not require releasing, unlocking, or unlatching any mechanism and will easily be accomplished with one hand.

A full height, roll-up door compartment behind the rear wheels will be provided. The interior dimensions of this compartment will be 52.00" wide x 54.50" high x 25.88" deep. The area behind the roll up door spool will be notched for exterior storage or larger capacity water tank tee. The depth of the compartment will be calculated with the compartment door closed. The compartment interior will be fully open from the compartment ceiling to the compartment floor and designed so that no permanent dividers are required between the upper and lower sections. The clear door opening of this compartment will be 49.00" wide x 54.50" high.

Closing of the door will not require releasing, unlocking, or unlatching any mechanism and will easily be accomplished with one hand.

All compartments will include a drip pan below the roll of the door.

SIDE COMPARTMENT ROLLUP DOOR(S)

There will be six (6) compartment doors installed on the side compartments. The doors will be double faced aluminum construction, painted one (1) color to match the lower portion of the body and manufactured by Gortite®.

Lath sections will be an interlocking rib design and will be individually replaceable without complete disassembly of door.

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Between each slat at the pivoting joint will be a PVC inner seal to prevent metal to metal contact and prevent dirt or moisture from entering the compartments. Seals will allow door to operate in extreme temperatures ranging from 180 to -40 degrees Fahrenheit. Side, top and bottom seals will be provided to resist ingress of dirt and weather and be made of Santoprene.

All hinges, barrel clips and end pieces will be nylon 66. All nylon components will withstand temperatures from 300 to -40 degrees Fahrenheit.

A polished stainless steel lift bar to be provided for each roll-up door. Lift bar will be located at the bottom of door and have latches on the outer extrusion of the doors frame. A ledge will be supplied over lift bar for additional area to aid in closing the door.

Doors will be constructed from an aluminum box section. The exterior surface of each slat will be flat. The interior surfaces will be concave to provide strength and prevent loose equipment from jamming the door from inside.

To conserve space in the compartments, the spring roller assembly will not exceed 3.00" in diameter.

The header for the rollup door assembly will not exceed 4.00".

A heavy-duty magnetic switch will be used for control of open compartment door warning lights.

REAR COMPARTMENTATION

A roll-up door compartment above the rear tailboard will be provided.

the interior dimensions of this compartment will be 37.00" wide x 36.50" high x 25.88" deep in the lower 27.00" of the compartment and 15.00" deep in the remaining upper portion. The clear door opening will be a minimum of 33.88" wide x 26.63" high.

A removable access panel will be furnished on the back wall of the compartment.

The rear compartment will be open into the rear side compartments. The transverse opening will be a minimum of 22.00" wide x 27.50" high.

A drip pan will be installed below the roll of the door. A guard will be installed behind the roll of the door. The interior height of the compartment will be measured from the floor to the ceiling. The depth of the compartment will be measured from the back wall to the inside of the door frame.

Closing of the door will not require releasing, unlocking, or unlatching any mechanism and will easily be accomplished with one hand.

ROLLUP REAR COMPARTMENT DOOR

The rear compartment will have a rollup door. The door will be double faced aluminum construction, an anodized satin finish and manufactured by Gortite®.

Lath sections will be an interlocking rib design and will be individually replaceable without complete disassembly of door.

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Between each slat at the pivoting joint will be a PVC inner seal to prevent metal to metal contact and prevent dirt or moisture from entering the compartments. Seals will allow door to operate in extreme temperatures ranging from 180 to -40 degrees Fahrenheit. Side, top and bottom seals will be provided to resist ingress of dirt and weather and be made of Santoprene.

All hinges, barrel clips and end pieces will be nylon 66. All nylon components will withstand temperatures from 300 to -40 degrees Fahrenheit.

A polished stainless steel lift bar to be provided for each roll-up door. Lift bar will be located at the bottom of door and have latches on the outer extrusion of the doors frame. A ledge will be supplied over lift bar for additional area to aid in closing the door.

Door will be constructed from an aluminum box section. The exterior surface of each slat will be flat. The interior surface will be concave to provide strength and prevent loose equipment from jamming the door from inside.

To conserve space in the compartments, the spring roller assembly will not exceed 3.00" in diameter.

The header for the rollup door assembly will not exceed 4.00".

A heavy-duty magnetic switch will be used for control of open compartment door warning lights.

ROLL-UP DOOR TRIM

The exterior of the aluminum trim around the door opening will be painted to match the color of the applicable door.

There will be eight (8) compartments located all side compartment doors including crosslays with the trim painted.

COMPARTMENT LIGHTING

There will be seven (7) compartment(s) with two (2) white 12 volt DC LED compartment light strips. The dual light strips will be centered vertically along each side of the door framing. There will be two (2) light strips per compartment. The dual light strips will be in all body compartment(s).

Any remaining compartments without light strips will have a 6.00" diameter Truck-Lite, Model: 79384 light. Each light will have a number 1076 one filament, two wire bulb.

Opening the compartment door will automatically turn the compartment lighting on.

HATCH COMPARTMENTS

Hatch compartments with two (2) lift-up, top opening hatch doors will be provided above the left and right side body compartments. Each hatch compartment will extend the full length of the side body compartmentation x 21.00" wide x 22.00" maximum depth. The compartments will extend the full length of the side body compartmentation except for a 20.00" recessed step area at the rear of the compartment on the access ladder side.

Sides of the compartments will be constructed of the same material as the body and painted job color on the outside panels. A chrome and black vinyl molding will be provided to cover the seam between

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the top of the body panel and the bottom of the hatch compartment. The vertical outboard seam at the center of the compartment will have a 1.00" wide painted aluminum extrusion.

Top of the compartments will be constructed of bright aluminum treadplate.

Two (2) lift-up, bright aluminum treadplate doors will be provided on the top of each hatch compartment. Each door will have a lever handle with a slam style latch to hold the doors in the closed position.

These double pan doors will have lipped edges with a rubber seal for weather resistance.

Doors will be hinged on the outboard side and will be held open with pneumatic stay arms.

The compartments will have a 3/4" drain that extends to below the body.

Ribbed rubber matting will be provided on the compartment floor to stop wet equipment from sitting in water pools.

Handrails will be provided at the step area to the rear of the hatch compartment. One (1) curved handrail will be mounted on the outboard side of the step area at the rear and curve over the top. One (1) straight handrail will be mounted vertically along the inboard side of the step area.

HATCH COMPARTMENT LIGHTING

There will be LED strip lights mounted full length on the interior, hinged side of each compartment.

Opening the hatch compartment door will automatically turn the hatch compartment lighting on.

MOUNTING TRACKS

There will be recessed tracks installed vertically to support the adjustable shelf(s).

Tracks will not protrude into any compartment in order to provide the greatest compartment space and widest shelves possible.

The tracks will be provided in each compartment except for the one that contains the pump operator's panel.

ADJUSTABLE SHELVES

There will be two (2) shelves with a capacity of 500 lb provided.

The shelf construction will consist of .188" aluminum painted spatter gray with 2.00" sides.

Each shelf will be infinitely adjustable by means of a threaded fastener, which slides in a track.

The shelves will be held in place by .12" thick stamped plated brackets and bolts.

The location(s) will be in LS1 centered between the floor and ceiling and in B1 in the upper third.

SLIDE-OUT ADJUSTABLE HEIGHT TRAY

There will be two (2) slide-out trays provided.

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Each tray will have 2.00" high sides and a minimum capacity rating of 250 lb in the extended position.

Each tray will be constructed of aluminum painted spatter gray.

Each tray will be mounted on a pair of side mounted slides. The slide mechanisms will have ball bearings for ease of operation and years of dependable service. The slides will be mounted to shelf tracks to allow the tray to be adjustable up and down within the designated mounting location.

An automatic lock will be provided for both the in and out tray positions. The lock trip mechanism will be located at the front of the tray and will be easily operated with a gloved hand.

The location(s) will be in RS3 centered between the floor and the ceiling and in RS3 in the lower third

SLIDE-OUT/TILT-DOWN TRAY

There will be three (3) slide-out trays provided.

The bottom of each tray will be constructed of 0.188" thick aluminum painted spatter gray while special aluminum extrusions will be utilized for the tray sides, ends, and tracks. The corners will be welded to form a rigid unit.

A spring loaded lock will be provided on each side at the front of the tray. Releasing the locks will allow the tray to slide out approximately two-thirds (2/3) of its length from the stowed position and tip 30 degrees down from horizontal. The tray will be equipped with ball bearing rollers for smooth operation.

Rubber padded stops will be provided for the tray in the extended position.

The capacity rating of the tray will be a minimum of 215 lb in the extended position.

The vertical position of the tray within the compartment will be adjustable.

The location(s) will be in RS1 centered between the floor and the ceiling, in RS2 centered between the floor and the ceiling and in RS3 in the upper third.

SLIDE-OUT FLOOR MOUNTED TRAY

There will be one (1) floor mounted slide-out tray(s) provided.

Each tray will have 2.00" high sides and a minimum capacity rating of 500 lb in the extended position.

Each tray will be constructed of aluminum painted spatter gray

There will be two undermount-roller bearing type slides rated at 250lb each provided. The pair of slides will have a safety factor rating of 2.

To ensure years of dependable service, the slides will be coated with a finish that is tested to withstand a minimum of 1,000 hours of salt spray per ASTM B117.

To ensure years of easy operation, the slides will require no more than a 50lb force for push-in or pull-out movement when fully loaded after having been subjected to a 40 hour vibration (shaker) test under full load. The vibration drive file will have been generated from accelerometer data collected from a

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heavy truck chassis driven over rough gravel roads in an unloaded condition. Proof of compliance will be provided upon request.

Automatic locks will be provided for both the "in" and "out" positions. The trip mechanism for the locks will be located at the front of the tray for ease of use with a gloved hand.

The location(s) will be LS1.

SWING OUT TOOLBOARD

A swing out aluminum toolboard will be provided.

It will be a minimum of .188" thick with .203" diameter holes in a pegboard pattern with 1.00" centers between holes.

A 1.00" x 1.00" aluminum tube frame will be welded to the edge of the pegboard.

The board will be mounted on a pivoting device at the front of the compartment on the top and bottom to allow easy movement in and out of the compartment. The maximum tool load will be 400 lb.

The board will have positive lock in the stowed and extended position.

The board will be mounted on adjustable tracks from front to back within the compartment.

There will be One (1) toolboard(s) provided. The toolboard(s) will be spatter gray painted and installed in LS2.

SLIDE-OUT TOOLBOARD

There will be four (4) slide-out toolboard(s) provided.

The toolboard will be a minimum of 0.188" thick with .203" diameter holes in a pegboard pattern with 1.00" centers between holes.

A 1.00" x 1.00" aluminum tube frame will be welded to the edge of the pegboard. A handhold cutout will be provided on the outboard edge of the toolboard.

The board will be mounted on an under-mount roller bearing type slide rated at 250 lb with a factor of safety of 2.

To ensure years of dependable service the slides will be coated with a finish that is tested to withstand a minimum of 1,000 hours of salt spray per ASTM B117.

To ensure years of easy operation, the slides will require no more than a 50 pound force for push-in or pull-out movement when fully loaded after having been subjected to a 40 hour vibration (shaker) test under full load. The vibration drive file will have been generated from accelerometer data collected from a heavy truck chassis driven over rough gravel roads in an unloaded condition. Proof of compliance will be provided upon request.

The slide will be mounted on adjustable tracks side to side within the compartment.

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The board will have positive lock in the stowed and extended position.

The toolboard(s) will be spatter gray painted and installed in RS1, 8.00" from the forward door frame, in RS1, 16.00" from the forward door frame, in RS3, 8.00" from the forward door frame and in RS3, 16.00" from the forward door frame.

SCBA HOLDER

There will be one (1) Zico SCBA bracket, model KD-UH-6-SF, mounted LS3 on rear wall up high.

PEGBOARD

There will be 3/16" thick aluminum pegboard spatter gray painted will be installed on the back wall of two (2) compartments. It will be mounted using two (2) horizontal tracks. Retainers will be used to mount the pegboard to the tracks. The pegboard(s) installed will be on the upper standard depth section of the compartment. The holes will be .203" diameter, punched 1.00" on center. Pegboard will be provided in the following compartments: LS2 and RS2.

RUB RAIL

Bottom edge of the side compartments will be trimmed with a bright aluminum extruded rub rail.

Trim will be 3.12" high with 1.50" flanges turned outward for rigidity.

The rub rails will not be an integral part of the body construction, which allows replacement in the event of damage.

Rub rails will be attached with bolts and spaced from the body with isolators that will help to absorb any moderate impact without damaging the body.

BODY FENDER CROWNS

Polished stainless steel fender crowns will be provided around the rear wheel openings.

A fender liner constructed of unpainted brushed stainless will be provided to avoid paint chipping. The liners will be removable to aid in the maintenance of rear suspension components.

A dielectric barrier will be provided between the fender crown fasteners (screws) and the fender sheet metal to prevent corrosion.

The fender crowns will be held in place with stainless steel screws that thread directly into a composite nut and not directly into the parent body sheet metal to eliminate dissimilar metals contact and greatly reduce the chance for corrosion.

HARD SUCTION HOSE

Two (2) lengths of 6.00" clear corrugated PVC hard suction hose, 10' in length, will be provided. The hose will be equipped with a long handle female coupling on one (1) end and a rocker lug male coupling on the other end. Couplings will be hard coated aluminum.

HARD SUCTION HOSE STORAGE

A total of two (2) fully enclosed hard suction hose compartment(s) will be provided one (1) on the left side and one (1) on the right side in the upper area of the body compartments and capable of storing one (1) hard suction hose each.

The trough will be constructed of aluminum.

One (1) smooth aluminum door with a Southco raised trigger C2 chrome latch hinged along the outboard edge, will be provided at the rear of each compartment.

HANDRAILS

The handrails will be 1.25" diameter knurled aluminum to provide a positive gripping surface.

Chrome plated end stanchions will support the handrail. Plastic gaskets will be used between end stanchions and any painted surfaces.

Drain holes will be provided in the bottom of all vertically mounted handrails..

Handrails will be located on the front of the body in positions needed to meet NFPA requirements.

- Two (2) vertical handrails will be located at the rear, one on each side of the rear compartment.

AIR BOTTLE STORAGE (DOUBLE)

A quantity of one (1) air bottle compartment, 15.25" wide x 7.75" tall x 26.00" deep, will be provided on the left side rearward of the rear wheels . A painted stainless steel door with a Southco raised trigger C2 chrome lever latch will be provided to contain the air bottle. A dielectric barrier will be provided between the door hinge, hinge fasteners and the body sheet metal.

Inside the compartment, "W" shaped insert formed of composite materials will be provided.

AIR PACK STORAGE

A total of three (3) air pack compartment(s) will be provided and located driver's side in front of rear wheels and passenger's side in front and behind rear wheels. The air pack compartment(s) will be tapered to match the profile of the space available in the fender. The compartment(s) will be approximately 15.50" wide at the top and 5.00" wide at the bottom for the wheel cutout. The compartment(s) will be 15.50" tall at the body side compartment and 6.00" tall at the wheel cutout. The compartment(s) will be 26.00" deep and have a drain hole.

Inside the compartment, black Dura-Surf friction reducing material will be provided.

A painted stainless steel hinged door with a Southco raised trigger C2 chrome lever latch will be provided to contain the air pack. A dielectric barrier will be provided between the door hinge, hinge fasteners and the body sheet metal.

AIR BOTTLE STORAGE BIN

A storage bin will be provided for storage of two (2) air bottles. This storage bin will be installed LS3 on the floor . Each separate air bottle storage compartment will be 7.50" square x 23.00" deep. The storage bin will be formed out of aluminum and the flooring lined with Dura-surf.

AIR BOTTLE COMPARTMENT STRAP

A strap will be provided in two (2) air bottle compartment/s to contain the air bottles when the vehicle is parked on an incline. The strap will wrap around the neck and attach to the wall of the compartment and located LS3 floor bottle storage.

EXTENSION LADDER

There will be a 24' two-section aluminum Duo-Safety Series 900-A extension ladder provided.

ROOF LADDER

There will be a 14' aluminum Duo-Safety Series 775-A roof ladder provided.

LADDER STORAGE

The ladders will be stored inside the upper section of the left side compartments. This ladder rack will reduce the depth of the upper section in the side compartments.

A partition will be installed inside the compartment on the side of the rack to allow for equipment storage and to conceal the ladders.

The ladders will be banked in separate storage troughs.

The ladder storage assembly will be fabricated of stainless steel track channels to aid in loading and removal of ladders.



Rear of the ladder storage area will have a vertically hinged smooth aluminum door with a D-handle latch to contain the ladders. The door will be hinged along the outboard edge.

FOLDING LADDER

One (1) 10.00' aluminum, Series 585-A, Duo-Safety folding ladder will be installed.

FOLDING LADDER STORAGE

One (1) folding ladder will be stored on the right side hard suction hose compartment in a stainless steel U-shaped trough. The ladder and trough will be located in the hard suction hose compartment.

PIKE POLE, 8'

One (1) pike pole, 8' long Duo Safety with a fiberglass handle, will be provided.

PIKE POLE STORAGE

There will be One (1) pike pole 8' or longer pike pole(s) stored in aluminum with a .75" standard notch tube(s) located in the hard suction hose compartment on the left side

PIKE POLE, 6'

One (1) pike pole, 6' long Duo Safety with a fiberglass handle, will be provided.

PIKE POLE STORAGE

There will be One (1) pike pole 6' pike pole(s) stored in aluminum tube(s) with a .75" standard notch located in the hard suction hose compartment on the left side.

LADDER, TOP ACCESS

A wide easy climbing access ladder, constructed of aluminum rungs and extruded aluminum rails, will be provided on the opposite side of the ladder storage at the rear of the apparatus. The inside climbing area of the ladder will be 13.75" wide.

The lower section of the ladder will be retractable into the upper section to eliminate interference with the rear FMVSS lights. When lowered the bottom rung will be lower than the body, approximately 16.00" to 20.00" from the ground to allow a lower first step height.

The ladder will be slanted when in use for easy access, and fold against the body for storage to reduce the overall length. Corrosion resistant, stainless steel spring-loaded locks will hold the ladder in place.

There will be a "do not move truck" indicator activated in the cab if the ladder is not in the stowed position when the parking brake is disengaged.

PUMP CONTROL PANELS (LEFT SIDE CONTROL)

Pump controls and gauges will be located midship at the left side of the apparatus and properly identified.

The main pump operator's control panel will be completely enclosed and located in the forward section of the body compartment, to protect against road debris and weather elements. The pump operator's panels will be no more than 31.00" wide, and made in four (4) sections with the center section easily removable with simple hand tools. For the safety of the pump operator, there will be no discharge outlets or pump inlets located on the main pump operators panel.

Layout of the pump control panel will be ergonomically efficient and systematically organized. The upper section will contain the master gauges. This section will be angled down for easy visibility. The center section will contain the pump controls aligned in two horizontal rows. The pressure control device, engine monitoring gauges, electrical switches, and foam controls (if applicable) will be located on or adjacent to the center panel, on the side walls for easy operation and visibility. The lower section will contain the outlet drains.

Manual controls will be easy moving 8" long lever style controls that operate in a vertical, up and down swing motion. These handles will have a 2.25" diameter knob and be able to lock in place to prevent valve creep under any pressure. Bright finish bezels will encompass the opening, be securely mounted to the pump operator's panel, and will incorporate the discharge gauge bezel. Bezels will be bolted to the panel for easy removal and gauge service. The left side discharges will be controlled directly at the valve. There will be no push-pull style control handles.

Identification tags for the discharge controls will be recessed within the same bezel. The discharge identification tags will be color coded, with each discharge having its own unique color.

All remaining identification tags will be mounted on the pump panel in chrome-plated bezels.



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All discharge outlets will be color coded and labeled to correspond with the discharge identification tag.

The pump panels for the midship discharge and intake ports will be located ahead of the body compartments with no side discharge or intake higher than the frame rail. The pump panels will be easily removable with simple hand tools.

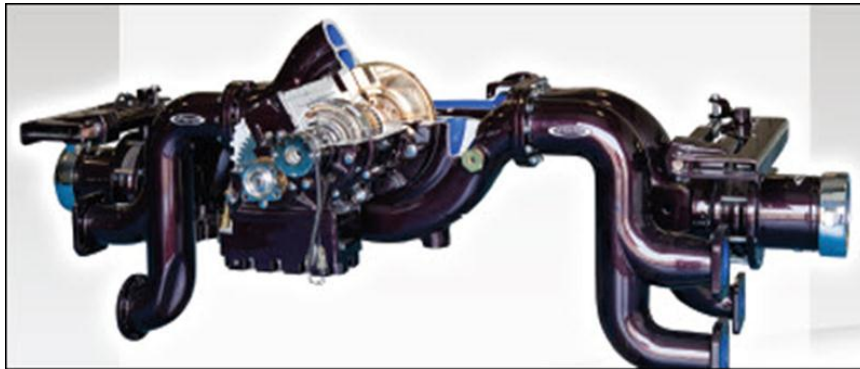
A recessed cargo area will be provided at the front of the body, ahead of the water tank above the plumbing.

REARWARD CARGO AREA FLOOR LOWERED

The rearward section of cargo floor above pump area only will be lowered to reduce the overall height of the vehicle.

PUMP

Pump will be a Pierce, low profile, 1500 gpm single stage midship mounted centrifugal type, mounted below the cab. The pump will have a 15 percent reserve capacity to allow for extended time between pump rebuild. To ensure efficient pump/vehicle design the capacity to weight ratio will not be less than 1.5:1.



The pump casing will consist of three (3) discharge outlets, one (1) to each side in line with the impeller and one (1) to the rear. The pump casing will incorporate two (2) water strippers to maintain radial balance.

Pump will be the Class A type.

Pump will be certified to deliver the percentage of rated discharge from draft at pressure indicated below:

- 100 percent of rated capacity at 150 psi net pump pressure
- 70 percent of rated capacity at 200 psi net pump pressure
- 50 percent of rated capacity at 250 psi net pump pressure

The pump will have the capacity to deliver the percentage of rated discharge from a pressurized source as indicated below:

- 135 percent of rated capacity at 100 psi net pump pressure from a 5 psi source

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Pump body will be fine-grained gray iron. Pump will incorporate a heater/cooling jacket integral to the pump housing.

The impeller will be high strength vacuum cast bronze alloy accurately machine balanced and splined to a 10 spline stainless steel pump shaft for precision fit, exceptional durability, and efficiency. Double replaceable reverse flow labyrinth type bronze wear ring design will help to minimize end thrust. The impeller will be a twisted vane design to create higher lift.

The pump will include o-ring gaskets throughout the pump.

Deep groove radial type oversize ball bearings will be provided. The bearings will be protected at the openings from road dirt and water with an oil seal and a water slinger.

The pump will have a flat, patterned area on the top of the pump intake wye to allow standing for plumbing maintenance. The main inlet manifold will be 6.00" in diameter and will have a low profile design to facilitate low crosslays and high flows.

For ease of service, the pump housing, intake wye, impeller, mechanical seal, and gear case will be accessible from above the chassis frame by tilting the cab. The intake wyes will be removable without having to remove the main intake casting. Removal of the main inlet wyes will provide access to the impeller, mechanical seal, and wear ring.

The tank to pump line and the primary discharge line will be the only piping required to be removed for overhaul.

For ease of service and overhaul there will be no piping or manifolding located directly over the pump.

PUMP MOUNTING

Pump will be mounted to the chassis frame rails directly below the crew cab, to minimize wheelbase and facilitate service, using rubber isolators in a modified V pattern that include two (2) central mounted isolators located between the frame rails, and one (1) on each side outside the frame rails. The mounting will allow chassis frame rails to flex independently without damage to the fire pump. Each isolator will be 2.55" in total outside diameter and will be rated at 490 lb. The pump will be completely accessible by tilting the cab with no piping located directly above the pump.

MECHANICAL SEALS

Silicon carbide mechanical seals will be provided. The seals will be spring loaded and self-adjusting. The seals will have a minimum thermal conductivity of 126 W/m*K to run cooler. Seals will have a minimum hardness of 2800 kg/mm² to be more resistant to wear, and have thermal expansion characteristics of no more than 4.0 X10⁻⁶mm/mm*K to be more resistant to thermal shock.

PUMP GEAR CASE

The pump gear case will be a pressure-lubricated to cool, lubricate, and filter the oil. The gear case will include an auxiliary PTO opening. The gear case will be constructed of lightweight aluminum, and impregnated with resin in accordance to MIL Spec MIL-I-17563. A dipstick, accessible by tilting the cab, will be provided for easy fluid level checks. A filter screen will be provided for long life.

The gear case will consist of two (2) gears to drive the pump impeller and one (1) for the auxiliary PTO.

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The auxiliary PTO opening will provide for the addition of PTO driven accessories.

The pump will be driven through the rear engine power take-off and clutch. The rear engine power take-off drive will be live at all times to allow for pump and roll applications. Rear engine power take-off's allow for high horsepower and torque ratings needed for large pump applications, and is a proven drive system throughout the rugged construction industry.

CLUTCH

There will be a heavy-duty electric clutch mounted directly to the front of the pump to engage and disengage the pump without gear clash. The clutch will be a multiple disc design for maximum torque. The clutch will be fully self-adjusting to provide automatic wear compensation, and consistent torque throughout the life of the clutch. Positive engagement and disengagement will be provided through a high efficient and dependable magnetic system to assure superior performance. The clutch will have a 500 lb-ft rating. Clutch will be of a time-tested design used in critical military applications.

PUMPING MODE

Pump will provide for both pump and roll mode and stationary pumping mode.

Stationary pumping mode will be accomplished by stopping the vehicle, setting the parking brake and engaging the water pump switch on the cab switch panel. The transmission will shift to "Neutral" range automatically when the parking brake is set. The "OK to Stationary Pump" indicator will also illuminate when the parking brake is set.

If the vehicle is equipped with a suitable Husky foam system or Hercules CAFS system, these systems will be engaged from the cab switch panel as well.

Pump and roll mode will be accomplished by the use of the main pump and will not require the use of a secondary pump. Pump and roll mode will use the same operation sequence as stationary pumping mode with a few additional steps. After the vehicle is setup for stationary pumping, the operator will leave the cab and setup the pump panel to discharge at the desired outlet(s). Upon returning to the cab, the operator will disengage the parking brake. An "OK to Pump & Roll" indicator will illuminate on the cab switch panel. First gear on the transmission gear selector will be selected by the operator for pump and roll operations. The operator as needed will apply the foot throttle. Pump and roll mode will be maintained unless the transmission shifts out of first gear.

Stopping either stationary pumping mode or pump and roll mode will be accomplished by pressing the "Water Pump" switch down to disengage the pump.

A pump pressure reading will be displayed on the drivers multiplex information center, in view of the driver.

PUMP SHIFT

Pump will be engaged in not more than two steps, by simply setting the parking brake, which will automatically put the transmission into neutral, and activating a rocker switch in the cab. Switches in the cab will also allow for water, foam, or CAFS if equipped, and activate the appropriate system to preset parameters. The engagement will provide simple two-step operation, enhance reliability, and completely eliminate gear clash. The shift will include the indicator lights as mandated by NFPA. A

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direct override switch will be located behind a door in the lower pump operator's panel. The switch will automatically disengage when the door is closed.

As the parking brake is applied, the pump panel throttle will be activated and deactivate the chassis foot throttle for stationary operation.

TRANSMISSION LOCK UP

Transmission lock up is not required as transmission will automatically shift to neutral as soon as the parking brake is set.

AUXILIARY COOLING SYSTEM

A supplementary heat exchange cooling system will be provided to allow the use of water from the discharge side of the pump for cooling the engine water. A water-to-coolant heat exchanger will be used.

INTAKE RELIEF VALVE - PUMP

There will be One (1) Elkhart Style 40 relief valve(s) installed on the suction side of the pump preset at 125 psig.

The relief valve(s) will have a working range of 75 psi to 250 psi.

The outlet will terminate below the frame rails with a 2.50" National Standard hose thread adapter and will have a "do not cap" warning tag.

The relief valve pressure control will be located behind behind the right side pump panel with a stainless steel access door .

PIERCE PRESSURE CONTROLLER

A Pierce electronic pressure controller will be provided.

A pressure transducer will be installed in the discharge side of the water pump. The transducer continuously monitors pump pressure sending a signal to the electronic pressure controller.

The pressure controller can be used in two (2) modes of operation, RPM mode and pressure modes. The controller will be programmed to turn on/default to RPM Setting mode.

In the RPM mode, the controller can be activated after vehicle parking brake has been set. When in this mode, the controller will maintain the set engine speed, regardless of engine load (within engine operation capabilities).

In the pressure mode, the controller can be activated after vehicle parking brake has been set. When in this mode, the controller will automatically maintain the discharge pressure set by the operator (within the discharge capabilities of the pump and water supply) regardless of flow.

A 2.00" diameter throttle control knob with no mechanical stops, a serrated grip, and a red idle push button in the center will be a integrated/part of the pressure controller. The throttle control knob will be programmed for Clockwise rotation to increase engine speed.

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Individual LED indicators for ok to pump, throttle ready, pressure mode and rpm mode will be located on the pressure controller for easy viewing.

A pump cavitation protection feature will also be provided which will return the engine to idle should the pump cavitate. Cavitation is sensed by the combination of pump pressure below 30 psi and engine speed above 2000 rpm for more than five (5) seconds.

Other safety features include recognition of low water and no water conditions with an automatic programmed response and a push button to return the engine to idle.

The pressure controller LCD screen will be 4.20" in size with a minimum brightness of 750 nits. The LCD screen and LED intensity will be automatically adjust for day and nighttime operation. The LCD screen intensity can also be manually adjusted if needed.

The following information will be provided/displayed on the LCD screen -

- Engine RPM
- Check engine and stop engine warning indicators
- Engine oil pressure
- Engine coolant temperature
- Water pump temperature
- Fuel Level
- Water tank level
- Battery voltage
- Operating mode (RPM or pressure)
- Pressure or RPM setting

On screen messaging show diagnostic and warning messages as they occur. It will show apparatus information, stored data, and program options when selected by the operator. It will monitor inputs outputs and support audible and visual warning alarms for the following conditions -

- High battery voltage
- Low battery voltage/engine off
- Low battery voltage/engine running
- High water pump temperature
- Low fuel
- Low engine oil pressure
- High engine coolant temperature
- Water tank out of water (visual alarm only)
- No engine response (visual alarm only)

The pressure controller will store the accumulated operating hours for the pump and engine. These items are to be displayed within the pressure controller menu.

The pressure controller will include a USB port on the back of the controller for easy software upgrades if needed.

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PRIMING PUMP

The priming pump will be a Trident Emergency Products compressed air powered, high efficiency, multistage venturi based AirPrime System, conforming to standards outlined in the current edition of NFPA 1901.

All wetted metallic parts of the priming system are to be of brass and stainless steel construction.

One (1) priming control will open the priming valve and start the pump primer.

PUMP MANUALS

There will be a total of two (2) pump manuals provided by the pump manufacturer and furnished with the apparatus. The manuals will be provided by the pump manufacturer in the form of two (2) electronic copies. Each manual will cover pump operation, maintenance, and parts.

PLUMBING, STAINLESS STEEL AND HOSE

All inlet and outlet lines will be plumbed with either stainless steel pipe, flexible polypropylene tubing or synthetic rubber hose reinforced with hi-tensile polyester braid. All hose's will be equipped with brass or stainless steel couplings. All stainless steel hard plumbing will be a minimum of a schedule 10 wall thickness.

Where vibration or chassis flexing may damage or loosen piping or where a coupling is required for servicing, the piping will be equipped with victaulic or rubber couplings.

Plumbing manifold bodies will be ductile cast iron or stainless steel.

All piping lines are to be drained through a master drain valve or will be equipped with individual drain valves. All drain lines will be extended with a hose to drain below the chassis frame.

All water carrying gauge lines will be of flexible polypropylene tubing.

All piping, hose and fittings will have a minimum of a 500 PSI hydrodynamic pressure rating.

FOAM SYSTEM PLUMBING

All piping that is in contact with the foam concentrate or foam/water solution will be stainless steel. The fittings will be stainless steel or brass. Cast iron pump manifolds will be allowed.

MAIN PUMP INLETS

A 6.00" pump manifold inlet will be provided on each side of the vehicle. The suction inlets will include removable die cast zinc screens that are designed to provide cathodic protection for the pump, thus reducing corrosion in the pump.

Main pump inlets will not be located on the main operator's panel and will maintain a low connection height by terminating below the top of the chassis frame rail.

SHORT SUCTION TUBE(S)

The suction tube(s) on the water pump will have short suction tube(s) installed to allow for installation of adapters, elbows or intake valves without excessive overhang.

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INLET BUTTERFLY VALVE

One (1) Pierce big flow valve will be provided on the right side main pump inlet.

The 6.00" inlet valve will be provided with a built-in, adjustable pressure relief valve and a 3/4" bleeder valve will be provided on the inlet side of the valve. The bleeder valve controls will be located at the threaded connection and at the pump operator's panel.

The valve will be capable of flowing 1950 GPM at 1 PSI pressure drop.

Valve will be electrically operated. An electric actuator, with valve position indicator lights, will be provided at the pump operator's panel.

The electric actuator will be furnished with a manual over ride, extended to the pump panel.

INLET BUTTERFLY VALVE

One (1) Pierce big flow valve will be provided on the left side main pump inlet.

The 6.00" inlet valve will be provided with a built-in, adjustable pressure relief valve and a 3/4" bleeder valve will be provided on the inlet side of the valve.

The valve will be capable of flowing 1950 GPM at 1 PSI pressure drop.

Valve will be electrically operated. An electric actuator, with valve position indicator lights, will be provided at the pump operator's panel.

The electric actuator will be furnished with a manual over ride, extended to the pump panel.

MAIN PUMP INLET CAP

The main pump inlets will have National Standard Threads with a long handle chrome cap.

The cap will be the Pierce VLH, which incorporates an exclusive thread design to automatically relieve stored pressure in the line when disconnected.



VALVES

All ball valves will be Akron® Brass. The Akron valves will be the 8000 series heavy-duty style with a stainless steel ball and a simple two-seat design. No lubrication or regular maintenance is required on the valve.

Valves will have a **ten (10) year** warranty.

The location of the valve for the one (1) inlet will be recessed behind the pump panel.

INLET CONTROL

The side auxiliary inlet(s) will incorporate a quarter-turn ball valve with the control located at the inlet valve. The valve operating mechanism will indicate the position of the valve.

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LEFT SIDE INLET

There will be one (1) auxiliary inlet with a 2.50" valve at the left side pump panel, terminating with a 2.50" (F) National Standard hose thread adapter.

The auxiliary inlet will be provided with a strainer, chrome swivel and plug.

RIGHT SIDE INLET

There will be one (1) auxiliary inlet with a 2.50" valve at the right side pump panel, terminating with a 2.50" (F) National Standard hose thread adapter.

The auxiliary inlet will be provided with a strainer, chrome swivel and plug.

ANODE, INLET

A pair of sacrificial zinc anodes will be provided in the water pump inlets to protect the pump from corrosion.

INLET BLEEDER VALVE

A 0.75" bleeder valve will be provided for each side gated inlet.

The valves will be located behind the panel with a "T" swing style handle control extended to the outside of the panel.

The handles will be chrome plated and provide a visual indication of valve position. The swing handle will provide an ergonomic position for operating the valve without twisting the wrist and provides excellent leverage.

The water discharged by the bleeders will be routed below the chassis frame rails.

TANK TO PUMP

The booster tank will be connected to the intake side of the pump with heavy duty 4.00" piping and a quarter turn 3.00" full flow line valve with the control located at the operator's panel. A rubber coupling will be included in this line to prevent damage from vibration or chassis flexing.

A check valve will be provided in the tank to pump supply line to prevent the possibility of "back filling" the water tank.

TANK REFILL

A 1.50" combination tank refill and pump re-circulation line will be provided, using a quarter-turn full flow ball valve controlled from the pump operator's panel.

DISCHARGE OUTLET CONTROLS

The right side discharges will incorporate a quarter-turn ball valve and be controlled by Akron 9335 electric valve controllers provided on the pump operators panel. The electric controls must be of a true position feedback design, requiring no clutches in the motor or current limiting. The units must be completely sealed with momentary open, close as well and an optional one touch full open feature to operate their corresponding valve actuator. The controllers will provide position indication on a full color, backlit LCD display. They will have manual adjustment of the brightness as well as an auto

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dimming option. In addition to the valve controls, the electric valve controllers will include a pressure display

All other outlets will have manual swing handles that operate in a vertical up and down motion. These handles will be able to lock in place to prevent valve creep under pressure.

LEFT SIDE DISCHARGE OUTLETS

There will be two (2) discharges with a 2.50" valves on the left side of the apparatus, terminating with a 2.50" (M) National Standard hose thread adapter. Discharges will be located below the cab, and will be no higher than the top of the chassis frame rail. Discharges will not be located on the pump operator's panel. Lever controls will be provided at the valve.

RIGHT SIDE DISCHARGE OUTLETS

There will be One (1) discharge outlet with a 2.50" valve on the right side of the apparatus, terminating with a 2.50" MNST adapter. The discharge(s) will be located below the crew cab and will be no higher than the top of the chassis frame rail.

There will be Akron 9335 electric valve controller(s) provided on the pump operators panel. The electric control(s) must be of a true position feedback design, requiring no clutches in the motor or current limiting. The unit(s) must be completely sealed with momentary open, close as well and an optional one touch full open feature to operate the valve actuator. The controller(s) will provide position indication on a full color, backlit LCD display. They will have manual adjustment of the brightness as well as an auto dimming option.

In addition to valve position, each controller will include a pressure display.

LARGE DIAMETER DISCHARGE OUTLET

There will be a 4.00" discharge outlet with a 4.00" valve installed on the right side of the apparatus, terminating with 4.00" MNST threads. The discharge will be located below the crew cab and will be no higher than the top of the chassis frame rail.

There will be an Akron 9335 electric valve controller provided on the pump operators panel. The electric control must be of a true position feedback design, requiring no clutches in the motor or current limiting. The unit must be completely sealed with momentary open, close as well and an optional one touch full open feature to operate the valve actuator. The controller will provide position indication on a full color, backlit LCD display. It will have manual adjustment of the brightness as well as an auto dimming option.

In addition to valve position, the controller will include a pressure display.

LARGE DIAMETER OUTLET ADAPTER

one (1) 4.00" outlet will be furnished with a 4.00" (F) National Standard hose thread x 5.00" Storz adapter. A 5.00" Storz cap and chain will be provided with the adapter.

FRONT DISCHARGE OUTLET

There will be one (1) 1.50" discharge outlet piped to the front of the apparatus and located in the center bumper tray.

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Plumbing will consist of 2.00" piping and flexible hose with a 2.00" ball valve with control at the pump operator's panel. A fabricated weldment made of stainless steel pipe will be used in the plumbing where appropriate. The piping will terminate with a 1.50" NST with 90 degree stainless steel swivel.

There will be automatic drains provided at all low points of the piping.

DISCHARGE CAPS/ INLET PLUGS

Chrome plated, rocker lug, caps with chain will be furnished for all discharge outlets 1.00" thru 3.00" in size, besides the pre-connected hose outlets.

Chrome plated, rocker lug, plugs with chain will be furnished for all auxiliary inlets 1.00" thru 3.00" in size.

The caps and plugs will incorporate a thread design to automatically relieve stored pressure in the line when disconnected.

OUTLET BLEEDER VALVE

A 0.75" bleeder valve will be provided for each outlet 1.50" or larger. Automatic drain valves are acceptable with some outlets if deemed appropriate with the application.

The valves will be located behind the panel with a T swing style handle control extended to the outside of the side pump panel.

The handles will be chrome plated and provide a visual indication of valve position.

The T swing handle will provide an ergonomic position for operating the valve without twisting the wrist and provides excellent leverage.

Bleeders will be located at the bottom of the pump panel. They will be properly labeled identifying the discharge they are plumbed in to.

The water discharged by the bleeders will be routed below the chassis frame rails.

DELUGE RISER

A 3.00" deluge riser will be installed above the pump in such a manner that a monitor can be mounted and used effectively. Piping will be rigidly braced and installed securely so no movement develops when the line is charged. A 2.50" gated valve will be installed and controlled at the pump operator's panel. The deluge outlet will flow a minimum 1000 GPM.

TELESCOPIC PIPING

The deluge riser piping will include a 18.00" Task Force Model XGA38 Extend-A-Gun extension. The control for the extension will be located at the pump panel.

This extension will be telescopic to allow the deluge gun to be raised 18.00" increasing the range of operation.

A position sensor will be provided on the telescopic piping that will activate the "do not move vehicle" light inside the cab when the monitor is in the raised position.

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MONITOR

A Task Force Tips Hurricane, model XFIH-E remote controlled monitor will be properly installed on the deluge riser.

This monitor will include the TFT primary monitor operator station, mounted at the pump operators panel.

A wireless remote control will be furnished.

The monitor will have manual over-ride hand wheels in the event of electrical system malfunction.

The monitor will be painted as provided by monitor manufacturer.

NOZZLE

A Task Force Tips Master Stream Series M-ER nozzle will be provided. The nozzle will have a range of 250 to 1250 GPM, and electric pattern control.

The deluge riser Extend-a-Gun will have a provisions for direct mounting a Task Force Hurricane monitor.

CROSSLAY MODULE

The crosslay module will be full width of the rear body.

The forward, upper corners of the module will have full body corners.

The crosslay module will be manufactured for installation of roll up doors on each side.

ROLLUP DOOR, CROSSLAY ENDS

The compartment doors will be rollup style, double faced aluminum construction painted one (1) color to match the lower portion of the body and manufactured by Gortite®.

Lath sections will be an interlocking rib design and will be individually replaceable without complete disassembly of door.

Between each slat at the pivoting joint will be a PVC inner seal to prevent metal to metal contact and prevent dirt or moisture from entering the compartments. Seals will allow door to operate in extreme temperatures ranging from 180 to -40 degrees Fahrenheit. Side, top and bottom seals will be provided to resist ingress of dirt and weather and be made of Santoprene.

All hinges, barrel clips and end pieces will be nylon 66. All nylon components will withstand temperatures from 300 to -40 degrees Fahrenheit.

A polished stainless steel lift bar to be provided for each roll-up door. Lift bar will be located at the bottom of door and have latches on the outer extrusion of the doors frame. A ledge will be supplied over lift bar for additional area to aid in closing the door.

Doors will be constructed from an aluminum box section. The exterior surface of each slat will be flat. The interior surfaces will be concave to provide strength and prevent loose equipment from jamming the door from inside.

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To conserve space in the compartments, the spring roller assembly will not exceed 3.00" in diameter.

The header for the rollup door assembly will not exceed 4.00".

A heavy-duty magnetic switch will be used for control of open compartment door warning lights.

The crosslays will have a drip pan below the roll of the door.

CROSSLAY COMPARTMENT LIGHTING

There will be two (2) 12 volt DC light strips with white LEDs and mechanical fasteners, provide behind the front door frame on the crosslay compartments per the following:

- One (1) strip light for the left side crosslay compartment door
- One (1) strip light for the right side crosslay compartment door

The lights will be activated when the battery switch is on and the respective door is opened.

CROSSLAY(S), LOWER

There will be two (2) lower crosslays provided.

1.50" Crosslays

There will be two (2) 1.50" crosslays plumbed with 2.00" welded or formed schedule 10 304L stainless steel pipe.

The crosslays will be low mounted with the bottom of both crosslay trays no more than 11.00" above the frame rails for simple, safe reloading and deployment.

There will be a 1.50" National Standard hose thread 90-degree swivel provided in each hose bed, so that the hose may be removed from either side of apparatus. The swivel will be as far outbound as possible for ease of changing hose.

Each crosslay will be gated with a 2.00" quarter turn ball valve with the controls located at the pump operator's panel.

Each hose bed will be capable of carrying 200' of 1.75" double jacket hose .

Crosslay Hose Trays

A removable tray will be provided for each crosslay hose bed. The crosslay tray will be constructed of black poly to provide a lightweight sturdy tray. Two (2) hand holes will be in the floor and additional hand holes will be provided in the sides for easy removal and installation from the compartment. The floor of the trays will be perforated to allow for drainage and hose drying.

Trays will be held in place by a mechanical spring-loaded stainless-steel latch that automatically deploys upon loading the trays to hold the trays in place during transit.

CROSSLAY(S), UPPER

There will be one (1) upper crosslay provided.

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2.50" Crosslay

There will be one (1) 2.50" crosslay plumbed with 2.50" welded or formed schedule 10 304L stainless steel pipe.

There will be a 2.50" National Standard hose thread 90-degree swivel provided in each hose bed, so that hose may be removed from either side of apparatus. The swivel will be as far outbound as possible for ease of changing hose.

Each crosslay will be gated with a 2.50" quarter turn ball valve with the controls located at the pump operator's panel.

Each hose bed will be capable of carrying 200' of 2.50" double jacket hose .

Crosslay Hose Trays

A removable tray will be provided for each crosslay hose bed. The crosslay tray will be constructed of black poly to provide a lightweight sturdy tray. Two (2) hand holes will be in the floor and additional hand holes will be provided in the sides for easy removal and installation from the compartment. The floor of the trays will be perforated to allow for drainage and hose drying.

Trays will be held in place by a mechanical spring-loaded stainless-steel latch that automatically deploys upon loading the trays to hold the trays in place during transit.

STOKES BASKET STORAGE

Mounting will be provide for a stokes basket located in the upper crosslay module. The stokes basket will be enclosed and removable from either side of the truck. A Velcro® strap will be provided on each end of the storage. The stokes basket to be stored will be 84.5"L x 24"W x 7.5"H.

HOSE REEL

A Hannay electric rewind hose reel will be installed B1 rear compartment. The reel will be painted to match the body. The reel will have capacity for 800 to 1,000' of 1.5" single jacket wildland hose.

A polished stainless steel roller and guide assembly will be provided to assist in deployment and rewinding of the hose.

Reel motor will be protected from overload with a circuit breaker rated to match the motor.

An electric rewind control switch will be installed adjacent to the reel.

Capacity of the hosereel will be 800 to 1,000' of 1.5" single jacket flat wildland hose booster hose.

HUSKY 3 FOAM PROPORTIONER

A Pierce Husky® 3 foam proportioning system will be provided. The Husky 3 is an on demand, automatic proportioning, single point, direct injection system suitable for all types of Class A and B foam concentrates, including the high viscosity (6000 cps), alcohol resistant Class B foams. Operation will be based on direct measurement of water flow, and remain consistent within the specified flows and pressures. The system will automatically proportion foam solution at rates from 0.1 percent to 3 percent regardless of variations in water pressure and flow, up to the maximum rated capacity of the foam concentrate pump.

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The design of the system will allow operation from draft, hydrant, or relay operation.

System Capacity

The system will have the ability to deliver the following minimum foam solution flow rates at accuracies that meet or exceed NFPA requirements at a pump rating of 150 psi.

100 gpm @ 3 percent

300 gpm @ 1 percent

600 gpm @ 0.5 percent

Class A foam setting in 0.1 percent increments from 0.1 percent to 1 percent. Typical settings of 1 percent, 0.5 percent and 0.3 percent (maximum capacity will be limited to the plumbing and water pump capacity).

Control System

The system will be equipped with a digital electronic control display located on the pump operators panel. Push button controls will be integrated into the panel to turn the system on/off, control the foam percentage, and to set the operation modes.

The percent of injection will have a preset. This preset can be changed at the fire department as desired. The percent of injection will be able to be easily changed at the scene to adjust to changing demands.

Three (3) 0.50" high LEDs will display the foam percentage in numeric characters. Three (3) indicator LEDs will also be included: one (1) green, one (1) red, and one (1) yellow. The LEDs will indicate various system operation or error states.

The indications will be:

- Solid Green - System On
- Solid Red - Valve Position Error
- Solid Yellow - Priming System
- Flashing Green - Injecting Foam
- Flashing Red - Low Tank Level
- Flashing Yellow - Refilling Tank

The control display will house a microprocessor, which receives input from the systems water flow meter while also monitoring the position of the foam concentrate pump. The microprocessor will compare the values of the water flow versus the position/rate of the foam pump, to ensure the proportion rate is accurate. One (1) check valve will be installed in the plumbing to prevent foam from contaminating the water pump.

Hydraulic Drive System

The foam concentrate pump will be powered by an electric over hydraulic drive system. The hydraulic system and motor will be integrated into one unit.

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Foam Concentrate Pump

The foam concentrate pump will be of positive displacement, self-priming; linear actuated design, driven by the hydraulic system. The pump will be constructed of brass body; chrome plated stainless steel shaft, with a stainless steel piston. In order to increase longevity of the pump, no aluminum will be present in its construction.

A relief system will be provided which is designed to protect the drive system components and prevent over pressuring the foam concentrate pump.

The foam concentrate pump will have minimum capacity for 3 gpm with all types of foam concentrates with a viscosity at or below 6000 cps including protein, fluoroprotein, AFFF, FFFP, or AR-AFFF. The system will deliver only the amount of foam concentrate flow required, without recirculating foam back to the storage tank. Recirculating foam concentrate back to the storage tank can cause agitation and premature foaming of the concentrate, which can result in system failure. The foam concentrate pump will be self-priming and have the ability to draw foam concentrate from external supplies such as drums or pails.

External Foam Concentrate Connection

An external foam pick-up will be provided to enable use of a foam agent that is not stored on the vehicle. The external foam pick-up will be designed to allow continued operation after the on-board foam tank is empty, or the use of foam different than the foam in the foam tank.

Panel Mounted External Pick-Up Connection / Valve

A bronze three (3)-way valve will be provided. The unit will be mounted to the pump panel. The valve unit will function as the foam system tank to pump valve and external suction valve. The external foam pick-up will be one (1) 0.75" male connection GHT (garden hose thread) with a cap.

Pick-Up Hose

A 0.75" flexible hose with an end for insertion into foam containers will be provided. The hose will be supplied with a 0.75" female swivel GHT (garden hose thread) swivel connector. The hose will be shipped loose.

Discharges

The foam system will be plumbed to the lower rear crosslay, lower front crosslay, upper rear crosslay and center of front bumper.

System Electrical Load

The maximum current draw of the electric motor and system will be no more than 55 amperes at 12 VDC.

SINGLE FOAM TANK REFILL

The foam system's proportioning pump will be used to fill the foam tank. This will allow use of the auxiliary foam pick-up to pump the foam from pails or a drum on the ground into the foam tank. A foam shut-off switch will be installed in the fill dome of the tank to shut the system down when the tank is full. The fill operation will be controlled by a mode in the foam system controller. While the proportioner pump is filling the tank, the controller will display a flashing yellow LED to indicate that the tank is filling. When the tank is full, as determined by the float switch in the tank dome, the pump will stop and the

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controller will shut the yellow LED off. If it attempted to use tank fill and the refill valve and suction valve are in the wrong position(s), then a red LED will illuminate to indicate the improper valve position(s). When the valves are positioned properly, then filling will commence.

PUMP PANEL CONFIGURATION

The pump panel configuration will be arranged and installed in an organized manner that will provide user-friendly operation.

PUMP AND GAUGE PANEL

The pump operator's panel and gauge panels will be constructed of stainless steel with a brushed finish.

The side control panels will be constructed of stainless steel with a brushed finish for durability and ease of maintenance.

PUMP AND PLUMBING ACCESS

Simple access to the plumbing will be provided through the front of the body area by raising the cab for complete plumbing service and valve maintenance. Access to valves will not require removal of operator panels or pump panels. Access for rebuilding of the pump will not require removal of more than the tank to pump line and a single discharge line. This access will allow for fast, easy valve or pump rebuilding, making for reduced out of service times. Steps will be provided for access to the top of the pump.

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Access to the pump will be provided by raising the cab. The pump will be positioned such that all maintenance and overhaul work can be performed above the frame and under the tilted cab. The service and overhaul work on the pump will not require the removal of operator panels or pump panels. Complete pump casing and gear case removal will require no more than removal of the intake and discharge manifolds, driveline, coolers and a single discharge line. The pump case and gear case will be able to be removed by lifting upward without interference from piping and be removable in less than 3 hours.

PUMP COMPARTMENT LIGHT

There will be one (1) Whelen®, Model 3SC0CDCR, 3.00" white 12 volt DC LED light(s) with Whelen, Model 3FLANGE, flange(s) installed in the plumbing area.

The light(s) will be activated by a toggle switch located in the pump compartment area.

Engine monitoring graduated LED indicators will be incorporated with the pressure controller.

THROTTLE READY GREEN INDICATOR LIGHT

There will be a green indicator light integrated with the pressure governor and/or engine throttle installed on the pump operators panel that is activated when the pump is in throttle ready mode.

VACUUM AND PRESSURE GAUGES

The pump vacuum and pressure gauges will be liquid filled and manufactured by Class 1 Incorporated ©.

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The gauges will be a minimum of 4.00" in diameter and will have white faces with black lettering, with a pressure range of 30.00"-0-600#.

Gauge construction will include a Zytel nylon case with adhesive mounting gasket and threaded retaining nut.

The pump pressure and vacuum gauges will be installed adjacent to each other at the pump operator's control panel.

Test port connections will be provided at the pump operator's panel. One will be connected to the intake side of the pump, and the other to the discharge manifold of the pump. They will have 0.25 in. standard pipe thread connections and non-corrosive polished stainless steel or brass plugs. They will be marked with a label.

This gauge will include a 10 year warranty against leakage, pointer defect, and defective bourdon tube.

PRESSURE GAUGES

The individual "line" pressure gauges for the discharges will be Class 1© interlube filled.

They will be a minimum of 2.00" in diameter and have white faces with black lettering.

Gauge construction will include a Zytel nylon case with adhesive mounting gasket and threaded retaining nut.

Gauges will have a pressure range of 30"-0-400#.

The individual pressure gauge will be installed as close to the outlet control as practical.

This gauge will include a 10 year warranty against leakage, pointer defect, and defective bourdon tube.

WATER LEVEL GAUGE

An electric water level gauge will be incorporated in the pressure controller that registers water level by means of nine (9) LEDs. They will be at 1/8 level increments with a tank empty LED. The LEDs will be a bright type that is readable in sunlight, and have a full 180-degree of clear viewing.

To further alert the pump operator, the gauge will have a warning flash when the tank volume is less than 25 percent. The gauge will have down chasing LEDs when the tank is almost empty.

The level measurement will be ascertained by sensing the head pressure of the fluid in the tank or cell.

MINI SLAVE UNIT

An electric water level gauge will be provided in the cab that registers water level by means of five (5) LEDs. They will be at 1/4 level increments with a tank empty LED. The LEDs will be a bright type that are readable in sunlight and have a full 180-degree of clear viewing.

The water level gauge in the cab will be activated when the pump is in gear.

WATER LEVEL GAUGE

There will be two (2) additional water level indicator(s), Whelen®, Model PSTANK2, LED module with chrome trim, installed one (1) each side rearward of crew cab doors.

This light module(s) will include four (4) colored levels, and function similar to the water level indicator located at the operators panel:

- First green module indicates a full water level
- Second blue module indicates a water level above 3/4 full
- Third amber module indicates a water level above 1/2 full
- Last red module indicates a water level above 1/4 full and empty
 - Above 1/4 this light will be steady burning
 - At empty this light will be flashing

The flash rate will be determined by the main water level tank sensor.

This module will be activated when the pump is in gear.

FOAM LEVEL GAUGE

A Pierce electric foam level gauge will be provided on the operator's panel, that registers foam level by means of nine (9) LEDs. There will also be a mini foam level gauge with five (5) LEDs in the cab. They will be at 1/8 level increments with a tank empty LED. The LEDs will be a bright type that is readable in sunlight, and have a full 180 degree of clear viewing. The gauge will match the water level gauge in the pressure controller.

To further alert the pump operator, will have a warning flash when the tank volume is less than 25 percent, and will have Down Chasing LEDs when the tank is almost empty.

The level measurement will be ascertained by sensing the head pressure of the fluid in the tank or cell. This method provides accuracy with an array of multi-viscosity foams.

The foam level gauge in the cab will be activated by pump is in gear.

SIDE CONTROL PUMP OPERATOR'S/PUMP PANEL LIGHTING

Illumination will be provided for controls, switches, essential instructions, gauges, and instruments necessary for the operation of the apparatus and the equipment provided on it. External illumination will be a minimum of five (5) foot-candles on the face of the device. Internal illumination will be a minimum of four (4) footlamberts.

The pump panels will be illuminated by two (2) Truck-Lite, Model 60354C, 6.00" x 2.00" oval white LED lights with Model 60700, grommets and chrome covers installed on the back of the cab, one (1) on the driver's side and one (1) on the passenger's side.

The pump operator's panel will utilize the same LED strip lighting at the forward doorframe as all other compartment lighting.

There will be a small white LED pump engaged indicator light installed overhead.

AIR HORN SYSTEM

There will be two (2) Grover air horns recessed in the front bumper. The horn system will be piped to the air brake system wet tank utilizing 0.38" tubing. A pressure protection valve will be installed in-line to prevent loss of air in the air brake system.

Air Horn Location

The air horns will be located on each side of the bumper, just outside of the frame rails.

AIR HORN CONTROL

The air horn(s) will be activated by the following:

- Right side lanyard. The lanyard to be a nylon rope.
- Left side lanyard. The lanyard to be a nylon rope.

ELECTRONIC SIREN

A Whelen®, Model 295SLSA1, electronic siren with noise canceling microphone will be provided.

This siren to be active when the battery switch is on and that emergency master switch is on.

Electronic siren head will be recessed in the driver side center switch panel.

The electronic siren will be controlled on the siren head only. No horn button or foot switches will be provided.

SPEAKER

There will be one (1) Whelen®, Model SA315P, black nylon composite, 100-watt, speaker with through bumper mounting brackets and polished stainless steel grille provided. The speaker will be connected to the siren amplifier.

The speaker will be recessed in the right side of the front bumper, towards the outside.

AUXILIARY MECHANICAL SIREN

There will be a Federal Signal Model Q2B mechanical siren furnished and installed in the front of the apparatus.

The Q2B will be chrome finish.

The siren will have a 2-gauge cable connected to a power solenoid that is connected by a 2-gauge cable ran battery direct to the primary chassis batteries and will be labeled Q2B+ at the battery. The power solenoid will only be enabled when the emergency master switch is on.

The siren will have a 2-gauge ground wire connected to the chassis battery stud. The cable will be labeled Q2B- at the battery.

When the chassis battery switch is on, and the emergency master switch is on, the Q2B siren will be activated by the following:

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The mechanical siren will be recessed behind the front bumper on the left side. The siren will be supported by the bumper framework. The Federal, Model MSFMT-EF, grille will be used on the front bumper in place of the standard Q2B mechanical siren grille.

MECHANICAL SIREN CONTROL

The mechanical siren will be activated by the following:

- Left side foot switch.
- Right side foot switch.

A momentary chrome push button switch will be included in the right side dash panel to activate the siren brake.

A momentary switch will be included in the left side overhead switch panel to activate the siren brake.

FRONT ZONE UPPER WARNING LIGHTS

There will be a 72.00" Whelen® Freedom™ IV LED lightbar mounted on the cab roof.

The lightbar will include the following:

- One (1) red flashing LED module in the left side rear corner position.
- One (1) dual alley LED module in the left side end position.
- One (1) red flashing LED module in the left side front corner position.
- One (1) red flashing LED module in the left side first front position.
- One (1) blue flashing LED module in the left side second front position.
- One (1) red flashing LED module in the left side third front position.
- One (1) blue flashing LED module in the left side fourth front position.
- One (1) white flashing LED module in the left side fifth front position.
- One (1) 795 LED traffic light controller set to national standard high priority in the center positions.
- One (1) white flashing LED module in the right side fifth front position.
- One (1) blue flashing LED module in the right side fourth front position.
- One (1) red flashing LED module in the right side third front position.
- One (1) blue flashing LED module in the right side second front position.
- One (1) red flashing LED module in the right side first front position.
- One (1) red flashing LED module in the right side front corner position.
- One (1) dual alley LED module in the right side end position.
- One (1) red flashing LED module in the right side rear corner position.

There will be clear lenses included on the lightbar.

The following switches may be installed in the cab on the switch panel to control the lightbar:

- a switch to control the flashing LED modules.
- a switch to control the left side alley LED module.
- a switch to control the right side alley LED module.

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- the traffic light controller with the emergency master switch only.
- no momentary switch to activate the traffic light controller.

The white flashing LED modules and the traffic light controller will be disabled when the parking brake is applied.

The eight (8) red and blue flashing LED modules in the front positions and the alley LED modules may be load managed when the parking brake is applied.

LIGHTBAR MOUNTING BRACKETS

There will be a pair of lightbar mounting brackets that will move the lightbar forward of the normal position on the cab roof to allow additional lightbars to be mounted between the main lightbar and the raised roof. These brackets will be made of 12 gauge steel, and painted black.

FRONT ZONE LOWER LIGHTS

There will be four (4) Whelen®, Model C6L**, 5.12" high x 7.56" long x 1.56" deep flashing LED warning lights installed on the cab face above the headlights, in a bezel similar to the headlight bezel per the following:

- The left side outside warning light to include red LEDs.
- The left side inside warning light to include red LEDs.
- The right side inside warning light to include red LEDs.
- The right side outside warning light to include red LEDs.
- The warning light lens color(s) to be clear.
- The housing to be polished and the trim shall be chrome.

The lights will be controlled per the following:

- There will be a switch in the cab on the switch panel to control the lights.
- White LEDs will be deactivated when the parking brake is applied.
- Amber LEDs will be deactivated when the parking brake is released.
- Blue, green or red LEDs in the center positions may be load managed when the parking brake is applied.

HEADLIGHT FLASHER

The high beam headlights will flash alternately between the left and right side.

There will be a switch installed in the cab on the switch panel to control the high beam flash. This switch will be live when the battery switch and the emergency master switches are on.

The flashing will automatically cancel when the hi-beam headlight switch is activated or when the parking brake is set.

SIDE ZONE LOWER LIGHTING

There will be six (6) Whelen®, Model C6L**, 5.12" high x 7.56" wide x 1.54" deep flashing LED warning lights with chrome trim installed per the following:

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- Two (2) lights located, one (1) each side on the bumper extension. The driver's side, side front light to include red warning LEDs and the passenger's side, side front light to include red warning LEDs.
- Two (2) lights located, one (1) each side above the front wheels. The driver's side, side middle light to include red warning LEDs and the passenger's side, side middle light to include red warning LEDs.
- Two (2) lights located, one (1) each side above rear wheels. The driver's side, side rear light to include red warning LEDs and the passenger's side, side rear light to include red warning LEDs.
- The warning light lens color(s) to be clear.

There will be a switch in the cab on the switch panel to control the lights.

SIDE WARNING LIGHTS

There will be two (2) Whelen®, Model C9L**, 8.12" high x 10.12" wide x 1.56" deep flashing LED warning light(s) with chrome trim provided front of hatch compartments on both sides.

The light(s) to include red flashing LEDs.

The warning light lens color(s) to be clear.

There will be a switch in the cab on the switch panel to control the light(s).

The light(s) may be load managed when the parking brake is applied.

REAR ZONE LOWER LIGHTING

There will be two (2) Whelen®, Model C6L**, 5.12" high x 7.56" wide x 1.56" deep flashing LED warning light(s) with chrome trim provided at the rear of the apparatus.

- the driver's side rear light to be red
- the passenger's side rear light to be red
- the warning light lens color(s) to be clear

There will be a switch in the cab on the switch panel to control the lights.

REAR AND SIDE UPPER ZONE WARNING LIGHTS

There will be four (4) Whelen®, Model C9L**, 8.12" high x 10.12" wide x 1.56" deep flashing LED warning lights chrome trim provided per the following:

- One (1) light installed on the left side, side of the apparatus as high and close to the rear as practical. The side rear upper light on the driver's side to include red LEDs.
- One (1) light installed on the left side, rear of the apparatus as high and close to the outside as practical. The rear upper light on the driver's side to include red LEDs.
- One (1) light installed on the right side, rear of the apparatus as high and close to the outside as practical. The rear upper light on the passenger's side to include red LEDs.
- One (1) light installed on the right side, side of the apparatus as high and close to the rear as practical. The side rear upper light on the passenger's side to include red LEDs.
- The clear.

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There will be a switch in the cab on the switch panel to control the lights.

TRAFFIC DIRECTING LIGHT

There will be one (1) Whelen®, Model TAL65, 36.00" long x 2.87" high x 2.25" deep, amber LED traffic directing light installed at the rear of the apparatus.

The Whelen, Model TACTL5, control head will be included with this installation.

The controller will be energized when the battery switch is on.

The auxiliary flash not activated.

This traffic directing light will be recessed with a stainless steel trim plate at the rear of the apparatus as high as practical.

The traffic directing light control head will be located in the driver side overhead switch panel in the right panel position.

INVERTER

There will be a Xantrex Model 806-1802, inverter furnished and properly wired into the chassis battery system.

This inverter will have a built-in 120 volt up to 30 amps transfer switch.

This inverter has been rated at 1350 watts to meet the NFPA testing requirements.

The inverter will provide 120 volts AC power when the shoreline inlet is not connected.

It will be mounted on rear cab wall and have adequate ventilation. The master switch will be located in the cab.

LIGHT TOWER

There will be one (1) Command Light Knight, Model KL408D-W1, light tower provided on the apparatus.

There will be six (6) Whelen®, Model PCH1*, 12 volt DC LED light heads included on this tower.

This tower will include the back light option.

The lights included on this tower may be load managed when the parking brake is applied.

This tower will activate the Do Not Move Truck Indicator light in the cab if not in the stowed position when the parking brake is released.

Light Tower Location

The light tower will be installed on the cab roof.

Light Tower Controller

There will be a panel mount with handheld wireless remote controller included with the light tower.

Light Tower Controller Location

The light tower controller will be installed in the driver's side front body compartment.

120 VOLT RECEPTACLE

There will be two (2), 15/20 amp 120 volt AC three (3) wire straight blade duplex receptacle(s) with interior stainless steel wall plate(s), installed one in each EMS compartment. The NEMA configuration for the receptacle(s) will be 5-20R.

The receptacle(s) will be powered from the shoreline to 120 volt AC power inverter internal transfer sw.

There will be a label installed near the receptacle(s) that state the following:

- Line Voltage
- Current Rating (amps)
- Phase
- Frequency

120 VOLT RECEPTACLE

There will be two (2), 15/20 amp 120 volt AC three (3) wire straight blade duplex receptacle(s) with white receptacle(s) and stainless steel wall plate(s), installed LS1 compartment 26" off the floor to the bottom of recept on forward side wall close to the rear wall and in RS1 26" off the floor to the bottom of recept on forward side wall close to the rear wall. The NEMA configuration for the receptacle(s) will be 5-20R.

The receptacle(s) will be powered from the shoreline to 120 volt AC power inverter internal transfer sw.

There will be a label installed near the receptacle(s) that state the following:

- Line Voltage
- Current Rating (amps)
- Phase
- Frequency

LOOSE EQUIPMENT

The following equipment will be furnished with the completed unit:

- One (1) bag of chrome, stainless steel, or cadmium plated screws, nuts, bolts and washers, as used in the construction of the unit.

NFPA REQUIRED LOOSE EQUIPMENT PROVIDED BY FIRE DEPARTMENT

The following loose equipment as outlined in NFPA 1901, 2016 edition, section 5.9.3 and 5.9.4 will be provided by the fire department.

- 800 ft (60 m) of 2.50" (65 mm) or larger fire hose.
- 400 ft (120 m) of 1.50" (38 mm), 1.75" (45 mm), or 2.00" (52 mm) fire hose.
- One (1) handline nozzle, 200 gpm (750 L/min) minimum.
- Two (2) handline nozzles, 95 gpm (360 L/min) minimum.

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- One (1) smoothbore of combination nozzle with 2.50" shutoff that flows a minimum of 250 gpm.
- One (1) SCBA complying with NFPA 1981 for each assigned seating position, but not fewer than four (4), mounted in brackets fastened to the apparatus or stored in containers supplied by the SCBA manufacturer.
- One (1) spare SCBA cylinder for each SCBA carried, each mounted in a bracket fastened to the apparatus or stored in a specially designed storage space(s).
- One (1) first aid kit.
- Four (4) combination spanner wrenches.
- Two (2) hydrant wrenches.
- One (1) double female 2.50" (65 mm) adapter with National Hose threads.
- One (1) double male 2.50" (65 mm) adapter with National Hose threads.
- One (1) rubber mallet, for use on suction hose connections.
- Two (2) salvage covers each a minimum size of 12 ft x 14 ft (3.7 m x 4.3 m).
- One (1) traffic vest for each seating position, each vest to comply with ANSI/ISEA 207, *Standard for High Visibility Public Safety Vests*, and have a five-point breakaway feature that includes two (2) at the shoulders, two (2) at the sides, and one (1) at the front.
- Five (5) fluorescent orange traffic cones not less than 28.00" (711 mm) in height, each equipped with a 6.00" (152 mm) retro-reflective white band no more than 4.00" (152 mm) from the top of the cone, and an additional 4.00" (102 mm) retro-reflective white band 2.00" (51 mm) below the 6.00" (152 mm) band.
- Five (5) illuminated warning devices such as highway flares, unless the five (5) fluorescent orange traffic cones have illuminating capabilities.
- One (1) automatic external defibrillator (AED).
- Four (4) ladder belts meeting the requirements of NFPA 1983, *Standard on Fire Service Life Safety Rope and System Components* (if equipped with an aerial device).
- If the supply hose carried does not use sexless couplings, an additional double female adapter and double male adapter, sized to fit the supply hose carried, will be carried mounted in brackets fastened to the apparatus.
- If none of the pump intakes are valved, a hose appliance that is equipped with one or more gated intakes with female swivel connection(s) compatible with the supply hose used on one side and a swivel connection with pump intake threads on the other side will be carried. Any intake connection larger than 3.00" (75 mm) will include a pressure relief device that meets the requirements of 16.6.6.
- If the apparatus does not have a 2.50" National Hose (NH) intake, an adapter from 2.50" NH female to a pump intake will be carried, mounted in a bracket fastened to the apparatus if not already mounted directly to the intake.
- If the supply hose carried has other than 2.50" National Hose (NH) threads, adapters will be carried to allow feeding the supply hose from a 2.50" NH thread male discharge and to allow the hose to connect to a 2.50" NH female intake, mounted in brackets fastened to the apparatus if not already mounted directly to the discharge or intake.

SOFT SUCTION HOSE

There will be no soft suction hose provided.

STRAINER PROVIDED BY FIRE DEPARTMENT

NFPA 1901, 2016 edition, section 5.8.2.1.1 requires a suction strainer when suction hose is provided.

The strainer is not on the apparatus as manufactured. The fire department will provide the suction strainer.

DRY CHEMICAL EXTINGUISHER PROVIDED BY FIRE DEPARTMENT

NFPA 1901, 2016 edition, section 5.9.4 requires one (1) approved dry chemical portable fire extinguisher with a minimum 80-B:C rating mounted in a bracket fastened to the apparatus.

The extinguisher is not on the apparatus as manufactured. The fire department will provide and mount the extinguisher.

WATER EXTINGUISHER PROVIDED BY FIRE DEPARTMENT

NFPA 1901, 2016 edition, section 5.9.4 requires one (1) 2.5 gallon or larger water extinguisher mounted in a bracket fastened to the apparatus.

The extinguisher is not on the apparatus as manufactured. The fire department will provide and mount the extinguisher.

FLATHEAD AXE PROVIDED BY FIRE DEPARTMENT

NFPA 1901, 2016 edition, Section 5.9.4 requires one (1) flathead axe mounted in a bracket fastened to the apparatus.

The axe is not on the apparatus as manufactured. The fire department will provide and mount the axe.

PICKHEAD AXE PROVIDED BY FIRE DEPARTMENT

NFPA 1901, 2016 edition, Section 5.9.4 requires one (1) pickhead axe mounted in a bracket fastened to the apparatus.

The axe is not on the apparatus as manufactured. The fire department will provide and mount the axe.

PAINT

The exterior custom cab and body painting procedure will consist of a seven (7) step finishing process as follows:

1. Manual Surface Preparation - All exposed metal surfaces on the custom cab and body will be thoroughly cleaned and prepared for painting. Imperfections on the exterior surfaces will be removed and sanded to a smooth finish. Exterior seams will be sealed before painting. Exterior surfaces that will not be painted include; chrome plating, polished stainless steel, anodized aluminum and bright aluminum treadplate.
2. Chemical Cleaning and Pretreatment - All surfaces will be chemically cleaned to remove dirt, oil, grease, and metal oxides to ensure the subsequent coatings bond well. The aluminum surfaces will be properly cleaned and treated using a high pressure, high temperature 4 step Acid Etch process. The steel and stainless surfaces will be properly cleaned and treated using a high temperature 3 step process specifically designed for steel or stainless. The chemical treatment converts the metal surface to a passive condition to help prevent corrosion.

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3. Surfacer Primer - The Surfacer Primer will be applied to a chemically treated metal surface to provide a strong corrosion protective basecoat. A minimum thickness of 2 mils of Surfacer Primer is applied to surfaces that require a Critical aesthetic finish. The Surfacer Primer is a two-component high solids urethane that has excellent sanding properties and an extra smooth finish when sanded.
4. Finish Sanding - The Surfacer Primer will be sanded with a fine grit abrasive to achieve an ultra-smooth finish. This sanding process is critical to produce the smooth mirror like finish in the topcoat.
5. Sealer Primer - The Sealer Primer is applied prior to the Basecoat in all areas that have not been previously primed with the Surfacer Primer. The Sealer Primer is a two-component high solids urethane that goes on smooth and provides excellent gloss hold out when topcoated.
6. Basecoat Paint - Two coats of a high performance, two component high solids polyurethane basecoat will be applied. The Basecoat will be applied to a thickness that will achieve the proper color match. The Basecoat will be used in conjunction with a urethane clear coat to provide protection from the environment.
7. Clear Coat - Two (2) coats of Clear Coat will be applied over the Basecoat color. The Clear Coat is a two-component high solids urethane that provides superior gloss and durability to the exterior surfaces. Lap style and roll-up doors will be Clear Coated to match the body. Paint warranty for the roll-up doors will be provided by the roll-up door manufacturer.

After the cab and body are painted, the color will be verified to make sure that it matches the color standard. Electronic color measuring equipment will be used to compare the color sample to the color standard entered into the computer. Color specifications will be used to determine the color match. A Delta E reading will be used to determine a good color match within each family color.

All removable items such as brackets, compartment doors, door hinges, and trim will be removed and painted separately if required, to ensure paint behind all mounted items. Body assemblies that cannot be finish painted after assembly will be finish painted before assembly.

The paint finish quality levels for critical areas of the apparatus (cab front and sides, body sides and doors, and boom lettering panels) are to meet or exceed Cadillac/General Motors GMW15777 global paint requirements. Orange peel levels are to meet or exceed the #6 A.C.T. standard in critical areas. These requirements must be met in order for the exterior paint finish to be considered acceptable. The manufacture's written paint standards will be available upon request.

PAINT - ENVIRONMENTAL IMPACT

Contractor will meet or exceed all current state regulations concerning paint operations. Pollution control will include measures to protect the atmosphere, water and soil. Controls will include the following conditions:

- Topcoats and primers will be chrome and lead free.
- Metal treatment chemicals will be chrome free. The wastewater generated in the metal treatment process will be treated on-site to remove any other heavy metals.
- Particulate emission collection from sanding operations will have a 99.99% efficiency factor.

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- Particulate emissions from painting operations will be collected by a dry filter or water wash process. If the dry filter is used, it will have an efficiency rating of 98.00%. Water wash systems will be 99.97% efficient
- Water from water wash booths will be reused. Solids will be removed on a continual basis to keep the water clean.
- Paint wastes are disposed of in an environmentally safe manner.
- Empty metal paint containers will be recycled to recover the metal.
- Solvents used in clean-up operations will be recycled on-site or sent off-site for distillation and returned for reuse.

Additionally, the finished apparatus will not be manufactured with or contain products that have ozone depleting substances. Contractor will, upon demand, present evidence that the manufacturing facility meets the above conditions and that it is in compliance with his state EPA rules and regulations.

CAB TWO-TONE PAINT

The cab will be painted two-tone with the upper section painted #10 white and the lower section painted #90 red. There will be a standard two-tone cab paint break provided.

There will be a standard cab shield provided.

TWO-TONE BODY PAINT

The body will be painted two-tone with the upper section painted to match the upper section of the cab and the lower section painted to match the lower section of the cab. The body paint break will be at the seam between the body and hatch compartment or catwalk on each side.

PAINT CHASSIS FRAME ASSEMBLY

The chassis frame assembly will be finished with a single system black top coat before the installation of the cab and body, and before installation of the engine and transmission assembly, air brake lines, electrical wire harnesses, etc.

Components treated with epoxy E-coat protection prior to paint:

- Two (2) C-channel frame rails

Components that are included with the chassis frame assembly that will be painted not e-coated are:

- Cross members
- Axles
- Suspensions
- Steering gear
- Battery boxes
- Bumper extension weldment
- Frame extensions
- Body mounting angles
- Rear Body support substructure (front and rear)

FILM TECHNICAL PROPERTIES		
PROPERTY	TEST METHOD	PERFORMANCE
Color	~	Black
Film Thickness	~	0.5 - 1.5 Mils
Gloss - 60 Degree	ASTM D523	65 - 85
Pencil Hardness	ASTM D3363	2H Minimum
Direct Impact	ASTM D2794	100 in. - lbs. Minimum
Reverse Impact	ASTM D2794	60 in. - lbs. Minimum
Crosshatch Adhesion	ASTM D3359	4B - 5B
Humidity	ASTM D1735	1000 Hours Minimum
Water Immersion	ASTM D870	250 Hours Minimum
Gravelometer	GM9508P	6 Minimum
Throwpower	GM9535P	12 - 15 in.
Cold rolled steel lab panels, Zinc Phosphate pretreatment, 0.6 mils average film thickness, cured 20 minutes @ 350°F.		
PROPERTY	SUBSTRATE PRETREATMENT	SALT SPRAY* 1000 HOURS
Corrosion Resistance	CRS / Zinc Phos / Non-Chrome	1 - 2 mm
*Salt Spray - ASTM B117, cold rolled steel lab panels cured 20 minutes @ 350°F. (Average Total Scribe Creep)		

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- Pump house substructure
- Air tanks
- Steel fuel tank
- Castings
- Individual piece parts used in chassis and body assembly

The E-coat process will meet the technical properties shown.

AXLE HUB PAINT

All axle hubs will be painted to match lower job color.

TRANSIT COATING

All non-painted metal surfaces on the exterior of the vehicle will be sprayed with a corrosion protective coating provided by Carwell. The coating can be removed with soap and water. The coating is made of a linseed oil base and is biodegradable.

The underside non-painted metal surfaces will also be coated with a corrosion protective coating.

COMPARTMENT INTERIOR PAINT

The interior of all compartments will be painted with a gray spatter finish for ease of cleaning and to make it easier to touch up scratches and nicks.

REFLECTIVE STRIPES

Three (3) reflective stripes will be provided across the front of the vehicle and along the sides of the body. The reflective band will consist of a 1.00" white stripe at the top with a 1.00" gap then a 6.00" white stripe with a 1.00" gap and a 1.00" white stripe on the bottom.

The reflective band provided on the cab face will be at the headlight level.

REAR CHEVRON STRIPING

There will be alternating chevron striping located on the rear-facing vertical surface of the apparatus. The rear surface, excluding the rear roll up door, will be covered.

The colors will be red and fluorescent yellow green diamond grade.

Each stripe will be 6.00" in width.

This will meet the requirements of the current edition of NFPA 1901, which states that 50% of the rear surface will be covered with chevron striping.

FOLDED RIBBON IN REFLECTIVE STRIPE

There will be one (1) folded type ribbon/s added to the reflective stripe located on the LS3 & RS3 roll-up doors..

OUTLINE, REFLECTIVE STRIPE

A Black outline will be applied on the top and the bottom of the reflective band. There will be three (3) set of outline stripes required.

STRIPE ON REAR ACCESS DOORS

There will be alternating striping located on the rear access doors.

The colors will be red and fluorescent yellow green diamond grade.

The stripes will be 6.00" in width and will match the chevron pattern on the rear body.

CAB DOOR REFLECTIVE STRIPE

A 6.00" x 16.00" black reflective stripe will be provided across the interior of each cab door. The stripe will be located approximately 1.00" up from the bottom, on the door panel.

This stripe will meet the NFPA 1901 requirement.

CAB FACE STRIPE

There will be a vinyl stripe across the face of the cab.

LETTERING

The lettering will be totally encapsulated between two (2) layers of clear vinyl.

LETTERING

There will be genuine gold leaf lettering, 3.00" high, with outline and shade provided. There will be eight (8) letters provided.

LETTERING

Twenty-one (21) to forty (40) reflective lettering, 8.00" high, with outline and shade will be provided.

LETTERING

Sixty-one (61) to eighty (80) reflective lettering, 3.00" high, with outline and shade will be provided.

LETTERING

Twenty-one (21) to forty (40) reflective lettering, 4.00" high, with outline and shade will be provided.

MALTESE CROSS INSTALLATION

There will be one (1) pair of maltese crosses, comprised of genuine gold leaf material, provided and installed cab doors.

EMBLEM

There will be two (2) emblem(s), approximately 9.00" - 11.00" wide in size, installed behind crew cab doors. The emblem will feature a "Flying American Flag" and an "Eagle Head".

CAB GRILLE DESIGN

An American flag design will be painted on the cab grille.

FIRE APPARATUS PARTS MANUAL

There will be one (1) custom parts manual(s) in USB flash drive format for the complete fire apparatus provided.

The manual(s) will contain the following:

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- Job number
- Part numbers with full descriptions
- Table of contents
- Parts section sorted in functional groups reflecting a major system, component, or assembly
- Parts section sorted in alphabetical order
- Instructions on how to locate parts

Each manual will be specifically written for the chassis and body model being purchased. It will not be a generic manual for a multitude of different chassis and bodies.

Service Parts Internet Site

The service parts information included in these manuals are also available on the Pierce website. The website offers additional functions and features not contained in this manual, such as digital photographs and line drawings of select items. The website also features electronic search tools to assist in locating parts quickly.

CHASSIS SERVICE MANUALS

There will be one (1) chassis service manuals on USB flash drives containing parts and service information on major components provided with the completed unit.

The manual will contain the following sections:

- Job number
- Table of contents
- Troubleshooting
- Front Axle/Suspension
- Brakes
- Engine
- Tires
- Wheels
- Cab
- Electrical, DC
- Air Systems
- Plumbing
- Appendix

The manual will be specifically written for the chassis model being purchased. It will not be a generic manual for a multitude of different chassis and bodies.

CHASSIS OPERATION MANUAL

The chassis operation manual will be provided on one (1) USB flash drive.

ONE (1) YEAR MATERIAL AND WORKMANSHIP

A Pierce basic apparatus limited warranty certificate, WA0008, is included with this proposal.

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ENGINE WARRANTY

A Paccar five (5) year limited engine warranty will be provided. A limited warranty certificate, XX, is included with this proposal.

STEERING GEAR WARRANTY

A TRW **one (1) year** limited steering gear warranty will be provided. A copy of the warranty certificate will be submitted with the bid package.

FIFTY (50) YEAR STRUCTURAL INTEGRITY

The Pierce custom chassis frame limited warranty certificate, WA0013, is included with this proposal.

FRONT AXLE WARRANTY

A Eaton **five (5)-year/100,000 mile** parts and labor warranty will be provided.

REAR AXLE WARRANTY

A Eaton **five (5)-year/100,000 mile** parts and labor warranty will be provided.

ABS BRAKE SYSTEM THREE (3) YEAR MATERIAL AND WORKMANSHIP WARRANTY

A Meritor Wabco™ ABS brake system limited warranty certificate, WA0232, is included with this proposal.

TEN (10) YEAR STRUCTURAL INTEGRITY

The Pierce custom cab limited warranty certificate, WA0012, is included with this proposal.

TEN (10) YEAR PRO-RATED PAINT AND CORROSION

A Pierce cab limited pro-rated paint warranty certificate, WA0055, is included with this proposal.

FIVE (5) YEAR MATERIAL AND WORKMANSHIP

The Pierce Command Zone electronics limited warranty certificate, WA0014, is included with this proposal.

CAMERA SYSTEM WARRANTY

A Pierce fifty four (54) month warranty will be provided for the camera system.

COMPARTMENT LIGHT WARRANTY

The Pierce 12 volt DC LED strip lights limited warranty certificate, WA0203, is included with this proposal.

TRANSMISSION WARRANTY

The transmission will have a **five (5) year/unlimited mileage** warranty covering 100 percent parts and labor. The warranty will be provided by Allison Transmission.

Note: The transmission cooler is not covered under any extended warranty you may be getting on your Allison Transmission. Please review your Allison Transmission warranty for coverage limitations.

TRANSMISSION COOLER WARRANTY

The transmission cooler will carry a five (5) year parts and labor warranty (exclusive to the transmission cooler). In addition, a collateral damage warranty will also be in effect for the first three (3) years of the

GLENWOOD SPRINGS ENFORCER PUC PUMPER

warranty coverage and will not exceed \$10,000 per occurrence. A copy of the warranty certificate will be submitted with the bid package.

WATER TANK WARRANTY

A UPF poly water tank limited warranty certificate, WA0195, is included with this proposal.

TEN (10) YEAR STRUCTURAL INTEGRITY

The Pierce apparatus body limited warranty certificate, WA0009, is included with this proposal.

ROLL UP DOOR MATERIAL AND WORKMANSHIP WARRANTY

A Gortite roll-up door limited warranty will be provided. The mechanical components of the roll-up door will be warranted against defects in material and workmanship for the lifetime of the vehicle. A **six (6) year** limited warranty will be provided on painted and satin roll up doors.

The limited warranty certificate, WA0190, is included with this proposal.

SIX (6) YEAR PARTS, ONE (1) YEAR LABOR

The pump and its components will be provided with a six (6) year parts and one (1) year labor limited warranty. The manufacturer's warranty will provide that the pump and its components will be free from failures caused by defects in material and workmanship that would arise under normal use and service.

A copy of the warranty certificate will be submitted with the bid package.

TEN (10) YEAR PUMP PLUMBING WARRANTY

The Pierce apparatus plumbing limited warranty certificate, WA0035, is included with this proposal.

FOAM SYSTEM WARRANTY

The Husky 3 foam system limited warranty certificate, WA0231, is included with this proposal.

TEN (10) YEAR PRO-RATED PAINT AND CORROSION

A Pierce body limited pro-rated paint warranty certificate, WA0057, is included with this proposal.

THREE (3) YEAR MATERIAL AND WORKMANSHIP

The Pierce Goldstar gold leaf lamination limited warranty limited warranty certificate, WA0018, is included with this proposal.

VEHICLE STABILITY CERTIFICATION

The fire apparatus manufacturer will provide a certification stating the apparatus complies with NFPA 1901, current edition, section 4.13, Vehicle Stability. The certification will be provided at the time of bid.

ENGINE INSTALLATION CERTIFICATION

The fire apparatus manufacturer will provide a certification, along with a letter from the engine manufacturer stating they approve of the engine installation in the bidder's chassis. The certification will be provided at the time of delivery.

POWER STEERING CERTIFICATION

The fire apparatus manufacturer will provide a certification stating the power steering system as installed meets the requirements of the component supplier. The certification will be provided at the time of bid.

CAB INTEGRITY CERTIFICATION

The fire apparatus manufacturer will provide a cab crash test certification with this proposal. The certification will state that a specimen representing the substantial structural configuration of the cab has been tested and certified by an independent third party test facility. Testing events will be documented with photographs, real-time and high-speed video, vehicle accelerometers, cart accelerometers, and a laser speed trap. The fire apparatus manufacturer will provide a state licensed professional engineer to witness and certify all testing events. Testing will meet or exceed the requirements below:

- European Occupant Protection Standard ECE Regulation No.29.
- SAE J2422 Cab Roof Strength Evaluation - Quasi-Static Loading Heavy Trucks.
- SAE J2420 COE Frontal Strength Evaluation - Dynamic Loading Heavy Trucks.

Roof Crush

The cab will be subjected to a roof crush force of 22,500 lb. This value meets the ECE 29 criteria, and is equivalent to the front axle rating up to a maximum of ten (10) metric tons.

Side Impact

The same cab will be subjected to dynamic preload where a 13,275-lb moving barrier is slammed into the side of the cab at 5.50 mph, striking with an impact of 13,000 ft-lb of force. This test is part of the SAE J2422 test procedure and more closely represents the forces a cab will see in a rollover incident.

Frontal Impact

The same cab will withstand a frontal impact of 32,600 ft-lb of force using a moving barrier in accordance with SAE J2420.

Additional Frontal Impact

The same cab will withstand a frontal impact of 65,200 ft-lb of force using a moving barrier. (Twice the force required by SAE J2420)

The same cab will withstand all tests without any measurable intrusion into the survival space of the occupant area.

CAB DOOR DURABILITY CERTIFICATION

Robust cab doors help protect occupants. Cab doors will survive a 200,000 cycle door slam test where the slamming force exceeds 20 G's of deceleration. The bidder will certify that the sample doors similar to those provided on the apparatus have been tested and have met these criteria without structural damage, latch malfunction, or significant component wear.

WINDSHIELD WIPER DURABILITY CERTIFICATION

Visibility during inclement weather is essential to safe apparatus performance. Windshield wipers will survive a 3 million cycle durability test in accordance with section 6.2 of SAE J198 *Windshield Wiper*

GLENWOOD SPRINGS ENFORCER PUC PUMPER

Systems - Trucks, Buses and Multipurpose Vehicles. The bidder will certify that the wiper system design has been tested and that the wiper system has met these criteria.

SEAT BELT ANCHOR STRENGTH

Seat belt attachment strength is regulated by Federal Motor Vehicle Safety Standards and should be validated through testing. Each seat belt anchor design will withstand 3000 lb of pull on both the lap and shoulder belt in accordance with FMVSS 571.210 Seat Belt Assembly Anchorages. The bidder will certify that each anchor design was pull tested to the required force and met the appropriate criteria.

SEAT MOUNTING STRENGTH

Seat attachment strength is regulated by Federal Motor Vehicle Safety Standards and should be validated through testing. Each seat mounting design will be tested to withstand 20 G's of force in accordance with FMVSS 571.207 Seating Systems. The bidder will certify, at time of delivery, that each seat mount and cab structure design was pull tested to the required force and met the appropriate criteria.

PERFORMANCE CERTIFICATIONS

Cab Air Conditioning

Good cab air conditioning temperature and air flow performance keeps occupants comfortable, reduces humidity, and provides a climate for recuperation while at the scene. The cab air conditioning system will cool the cab from a heat-soaked condition at 100 degrees Fahrenheit to an average of 78 degrees Fahrenheit in 30 minutes. The bidder will certify that a substantially similar cab has been tested and has met these criteria.

Cab Defroster

Visibility during inclement weather is essential to safe apparatus performance. The defroster system will clear the required windshield zones in accordance with SAE J381 Windshield Defrosting Systems Test Procedure And Performance Requirements - Trucks, Buses, And Multipurpose Vehicles. The bidder will certify that the defrost system design has been tested in a cold chamber and passes the SAE J381 criteria.

Cab Auxiliary Heater

Good cab heat performance and regulation provides a more effective working environment for personnel, whether in-transit, or at a scene. An auxiliary cab heater will warm the cab 77 degrees Fahrenheit from a cold-soak, within 30 minutes when tested using the coolant supply methods found in SAE J381. The bidder will certify, at time of delivery, that a substantially similar cab has been tested and has met these criteria.

AMP DRAW REPORT

The bidder will provide, at the time of bid and delivery, an itemized print out of the expected amp draw of the entire vehicle's electrical system.

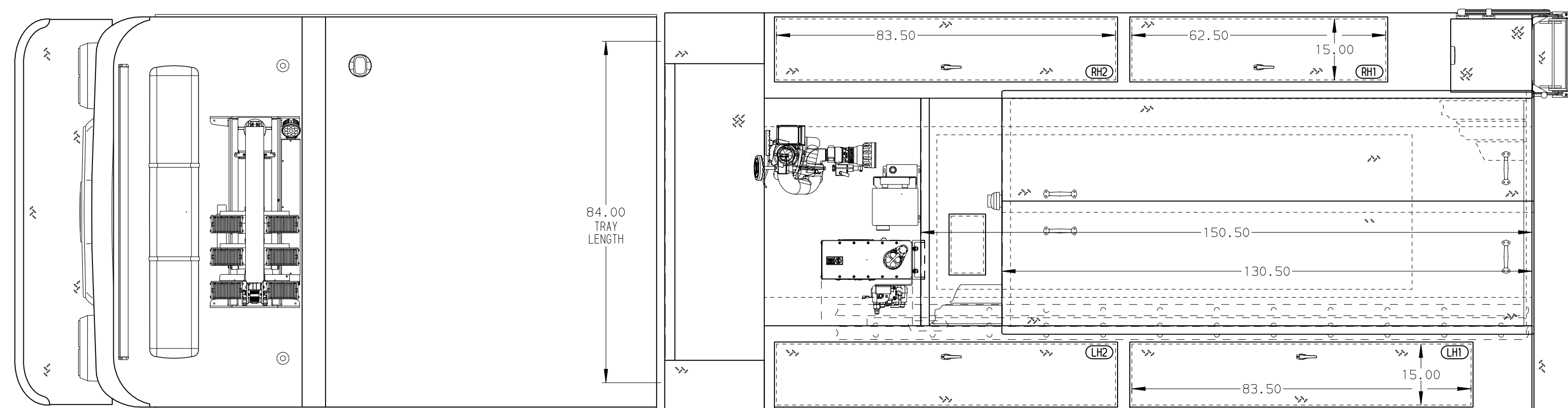
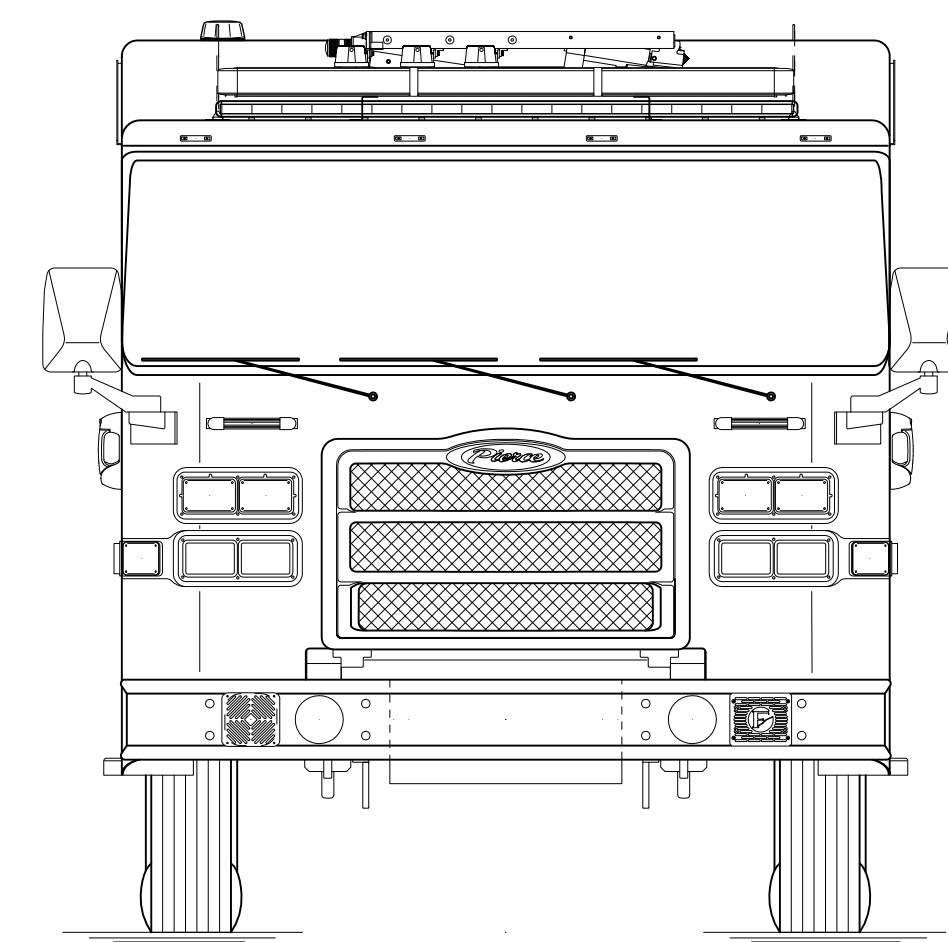
The manufacturer of the apparatus will provide the following:

- Documentation of the electrical system performance tests.
- A written load analysis, which will include the following:

GLENWOOD SPRINGS ENFORCER PUC PUMPER

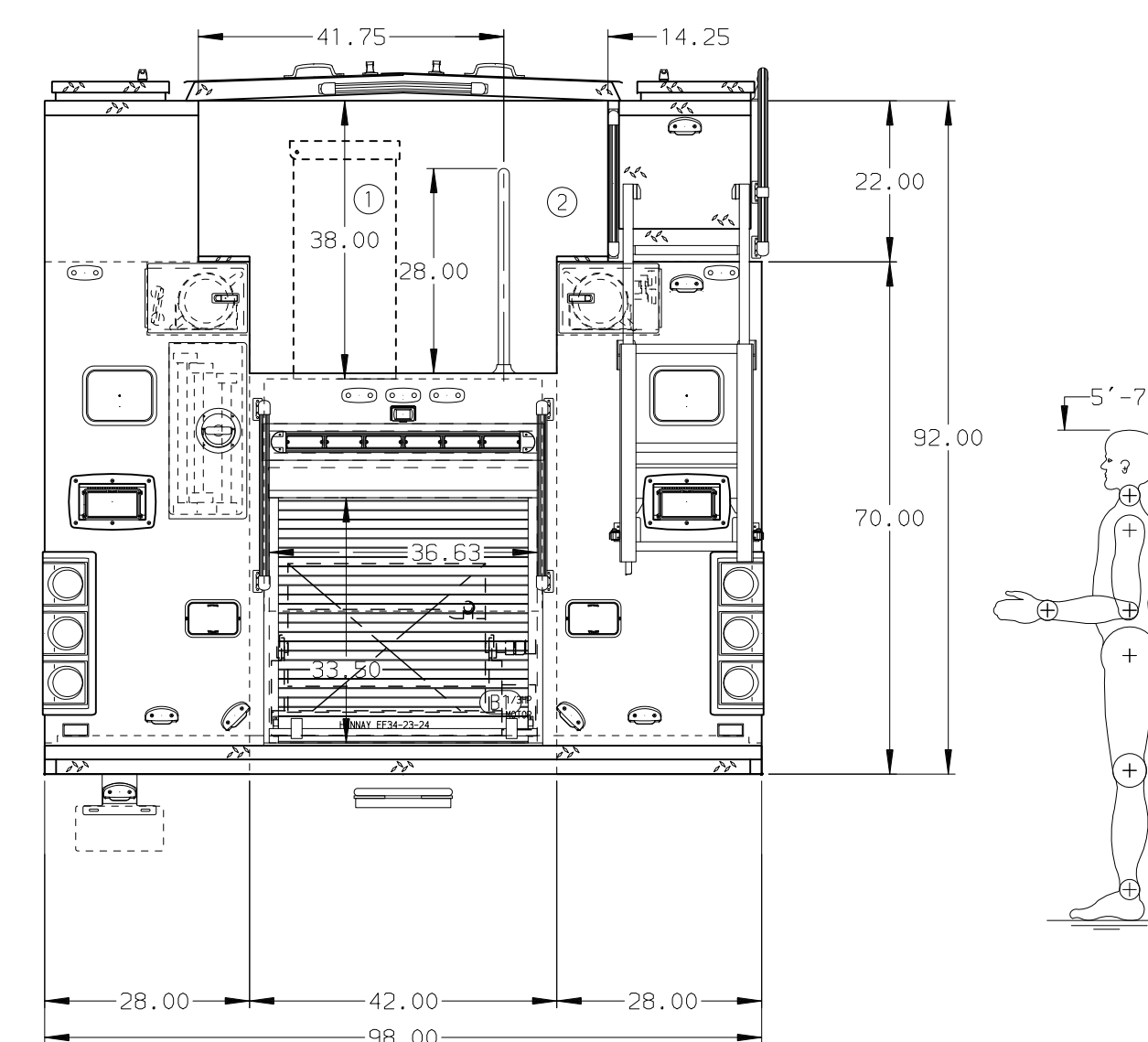
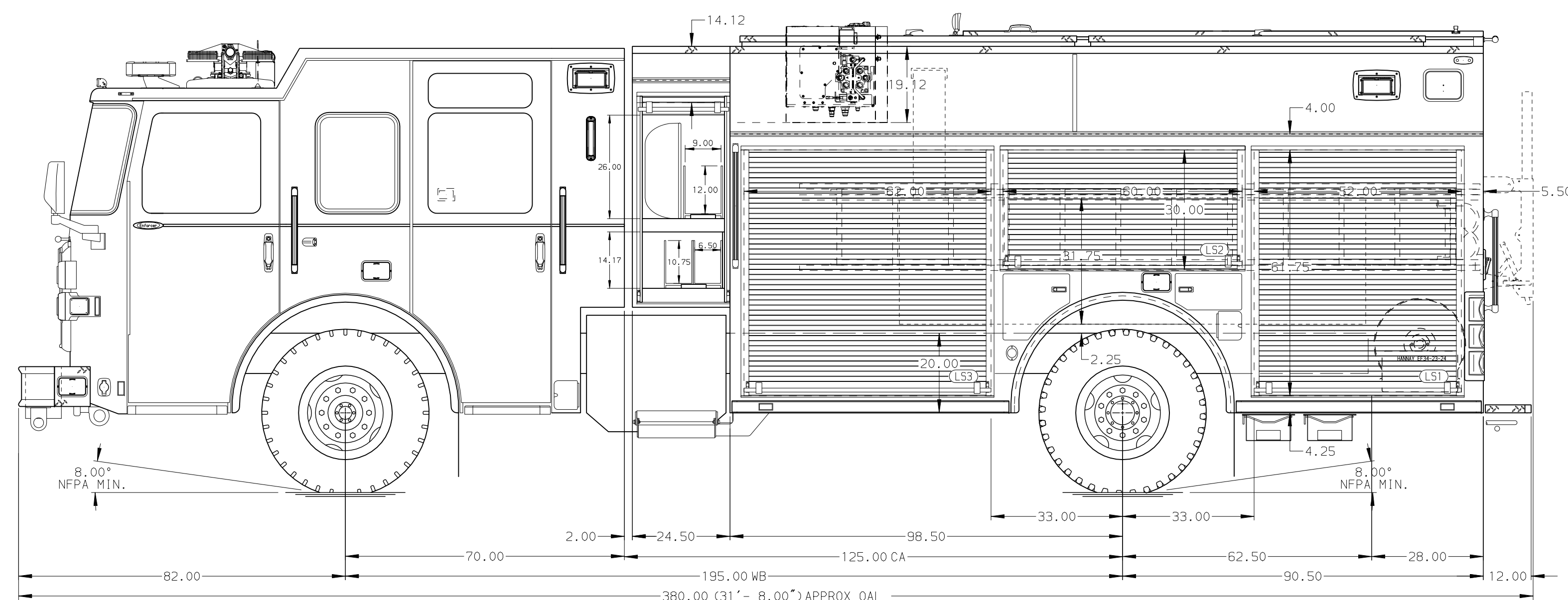
- The nameplate rating of the alternator.
- The alternator rating under the conditions specified per:
 - Applicable NFPA 1901 or 1906 (Current Edition).
- The minimum continuous load of each component that is specified per:
 - Applicable NFPA 1901 or 1906 (Current Edition).
- Additional loads that, when added to the minimum continuous load, determine the total connected load.
- Each individual intermittent load.

All of the above listed items will be provided by the bidder per the applicable NFPA 1901 or 1906 (Current Edition).



HOSEBED CAPACITIES

①	1000' OF 5.00" L.D. HOSE
②	500' OF 2.50" D.J. HOSE



ALUMINUM BODY

NOTE
DIMENSIONS SHOWN ARE APPROXIMATE
AND ARE SUBJECT TO MINOR DEVIATIONS
AS MAY OCCUR OR BE NECESSARY IN
CONSTRUCTION.
MINOR DETAILS NOT SHOWN.

CUSTOMER APPROVAL					 MANUFACTURING INC.			JOB NO.	PRELIM	
APPROVED BY: _____ DATE: _____								SCALE 1:24	DATE	
				CHASSIS DATA	TITLE	1500-D-500P, 189' PUC RESCUE BODY			DRAWN BY	
				MAKE		(3) CROSSLAYS, DELUGE, LADDERS THROUGH BODY			SAM	130CT21
				PIERCE	FOR	GLENWOOD SPRINGS FIRE DEPARTMENT			BID# 1036	CHECKED BY
				MODEL		FRONT RANGE FIRE APPARATUS, LTD			WAYNE KERBER	CKN
	-	-	-	ENFORCER	DWG NO.	04-9533			SHEET SIZE	SHEET NO.
REV	DATE	BY	CH						1 OF 1	



Dana Holding Corporation
Commercial Vehicle Products Group
Graco Lake Corporate Center
1 Village Center Drive
Van Buren Township, Michigan 48111
www.dana.com

FOR IMMEDIATE RELEASE

5 YEAR WARRANTY FOR YOUR FIRE/RESCUE VEHICLE

Dana Holding Corporation's Commercial Vehicle Systems Group is pleased to announce a change in our standard warranty for fire/rescue vehicles. Starting in 2011, all steer and drive axle applications for fire or rescue vehicles will carry a minimum 5 year / 100,000 mile warranty. Additional 1 and 2 year extended warranty packages are available. (Applicable fees apply) That's a total of 7 years of warranty coverage. Our experience in extended warranty coverage's dates back to the mid 80's. Since then, we have pioneered many new programs designed to deliver warranties, which meet the demands of an ever-changing industry. From our first versions of the on/off-highway coverage's, to our more recent vocational warranties, customization and customer satisfaction, have always been our goals.

For further information and requirements, please go to www.roadranger.com.

24K STEER BEAM NOW AVAILABLE

Dana Holding Corporation is continually working with chassis manufactures to determine needs and how best to offer a solution. The amount of equipment has increased over the years and not all firehouses can accommodate a tandem axle vehicle. We have listened to your requests for a slightly higher front GAWR for single axle vehicles. Dana can now offer a front steer beam with a 5 1/4" drop at 24K GAWR. This will allow chassis manufactures to meet the limited length requirements while still carrying the same amount of equipment.

Please contact your Dana representative for further information

For additional information please contact:

Alan Manzon
Account Manager – Specialty Markets
Dana Holding Corporation
One Village Center Dr.
Van Buren Twp., MI 48111-5711
Phone: (734) 629-1141
alan.manzon@dana.com

EATON

The Roadranger System



Roadranger
MORE TIME ON THE ROAD



Dana Holding Corporation
Commercial Vehicle Products Group
Grace Lake Corporate Center
1 Village Center Drive
Van Buren Township, Michigan 48111
www.dana.com

New for 2011!

Dana Holding Corporation is pleased to announce a change in our standard warranty for fire/rescue vehicles. All steer and drive axles will now come with a 5 year / 100,000 mile warranty. For further information, please go to www.roadranger.com.

Dana Holding Corporation is working with chassis manufactures to supply a 24K front steer beam with a 5 ¼' drop. We have listened to your requests for a slightly higher GAWR for single axle aerials. Not all fire stations can accommodate a long wheel base application. This allows manufactures to meet the limited length requirements for smaller fire houses. Please submit your requests through our website. Please indicate on the application your need for 24K GAWR.

Finally, our drive axles will accommodate simultaneous auxiliary braking. Dana axles are built tough and were design with Telma retarders in mind. Submit your application for single or tandem designation.

Dana Holding Corporation will work with you to provide the best drive train solution with the best warranty in the fire/rescue industry. For additional information please contact:

Alan Manzon
Account Manager - Specialty Markets
Dana Holding Corporation
One Village Center Dr.
Van Buren Twp., MI 48111-5711

Phone: (734)629-1141
Cell: (269)312-3220
Alan.manzon@dana.com

AKRON BRASS 10 YEAR WARRANTY ON HEAVY DUTY SWING-OUT™ VALVES

Akron Brass warrants Heavy Duty Swing-Out Valves for a period of ten (10) years after purchase against defects in material or workmanship. Akron Brass will repair or replace any Heavy Duty Swing-Out Valve which fails to satisfy this warranty. Repair or replacement shall be at the discretion of Akron Brass. Electrical components shall carry our standard five (5) year warranty. We will not be responsible for: wear and tear; any improper installation, use or maintenance; negligence of the owner or user; repair or modification after delivery; failure to follow our instructions or recommendations; or anything else beyond our control. WE MAKE NO WARRANTIES, EXPRESS OR IMPLIED, OTHER THAN THOSE INCLUDED IN THIS WARRANTY STATEMENT, AND WE DISCLAIM ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. Further, we will not be responsible for any consequential, incidental or indirect damages (including, but not limited to, any loss of profits) from any cause whatsoever. No person has authority to change this warranty.

**HEAVY
DUTY**
Swing-Outs
Proven Performance Trusted By Firefighters
For Over Half a Century



 **AKRON**
BRASS COMPANY
An ISO 9001: 2000 Registered Company



Fire and Rescue Apparatus

One (1) Year Material and Workmanship

Basic Apparatus

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	Portions of the apparatus manufactured by Pierce shall be free from defects in material and workmanship
Warranty Begins:	The date the apparatus is placed in service, or 60 days from the original buyer invoice date, whichever comes first.
Warranty Period Ends After:	Twelve (12) months.
Conditions and Exclusions: See Also Paragraphs 2 thru 4	No specific exclusions apply

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

2/8/2010 WA0008



Fire and Rescue Apparatus

Ten (10) Year Structural Integrity

Apparatus Body

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	The apparatus body shall be free from structural failures caused by defects in material and workmanship
Warranty Begins:	The date of the original purchase invoice (issued when the product ships from the factory).
Warranty Period Ends After:	Ten (10) Years - or - 100,000 Miles
Conditions and Exclusions: See Also Paragraphs 2 thru 4	This warranty applies only to the body tubular support and mounting structures and other structural components of the body of the vehicle model, as identified in the Pierce specifications for the Fire and Rescue Apparatus. This warranty does not apply to damage caused by corrosion.

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

2/8/2010 WA0009



Fire and Rescue Apparatus

Ten (10) Year Structural Integrity

Custom Cab

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	The Pierce Custom Cab shall be free from structural failures caused by defects in material and workmanship
Warranty Begins:	The date of the original purchase invoice (issued when the product ships from the factory).
Warranty Period Ends After:	Ten (10) Years - or - 100,000 Miles
Conditions and Exclusions: See Also Paragraphs 2 thru 4	This warranty applies only to the cab tubular support and mounting structures and other structural components of the cab of the vehicle model, as identified in the Pierce specifications for the Fire and Rescue Apparatus. This warranty does not apply to damage caused by corrosion.

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

2/8/2010 WA0012



Fire and Rescue Apparatus

Lifetime Fifty (50) Year Structural Integrity

Custom Chassis Frame

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	Custom chassis frame rail manufactured by Pierce shall be free from defects in material and workmanship
Warranty Begins:	The date of the original purchase invoice (issued when the product ships from the factory).
Warranty Period Ends After:	Fifty (50) Years (Expected Life of Apparatus)
Conditions and Exclusions: See Also Paragraphs 2 thru 4	This warranty does not apply to damage caused by corrosion.

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

2/8/2010 WA0013



Fire and Rescue Apparatus

Five (5) Year Material and Workmanship

Command Zone Electronics

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	Command Zone control modules shall be free from failures caused by defects in material and workmanship
Warranty Begins:	The date of the original purchase invoice (issued when the product ships from the factory).
Warranty Period Ends After:	Five (5) Years
Conditions and Exclusions: See Also Paragraphs 2 thru 4	This limited warranty applies to all of the control modules for the Command Zone system, including the full color graphic displays. Related wire harnesses, cables and connectors are not covered under this limited warranty and are instead covered under the Pierce One Year Basic Apparatus Limited Warranty.

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

2/8/2010 WA0014



Fire and Rescue Apparatus

Three (3) Year Material and Workmanship

Goldstar® Gold Leaf Lamination

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	Each Goldstar® gold leaf lamination shall be free from defects in material and workmanship.
Warranty Begins:	The date of the original purchase invoice (issued when the product ships from the factory).
Warranty Period Ends After:	Three (3) Years
Conditions and Exclusions: See Also Paragraphs 2 thru 4	This warranty does not cover damage from lack of maintenance and cleaning (proper cleaning and maintenance procedures are detailed in the Pierce operation and maintenance manual).

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

2/22/2010 WA0018



orporation Classification: Unrestricted

Fire and Rescue Apparatus

Six (6) Month Material and Workmanship Replacement Parts

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the purchaser who first puts the product in service ("Buyer"):

Coverage:	Aftermarket spare parts, purchased from an authorized Pierce dealer, and installed on Pierce-branded vehicles, shall be free of defects in materials & workmanship.
Warranty Begins:	At date of sale to Buyer OR date of install by Pierce authorized dealer.
Warranty Period Ends After:	Six (6) months.
Conditions and Exclusions: See Also Paragraphs 2 thru 4	Defective Aftermarket spare parts must be returned to Pierce within 30 days of repair completion date. If Aftermarket part is sold directly to end-customer: 1. Warranty is valid six (6) months from date of sale; 2. Warranty reimbursement excludes labor; 3. Pierce dealer must submit copy of original invoice which shows date of sale, Pierce part number, and Buyer information (name, address, telephone number, etc.). If Aftermarket spare part is installed by Pierce dealer: 1. Warranty is valid six (6) months from date of installation; 2. Warranty reimbursement shall cover parts & labor IF installed by a Pierce Master Certified Technician; 3. Pierce dealer must submit copy of original invoice which shows date of installation, Pierce part number, and Buyer vehicle information (VIN, Job #, miles, hours, etc.)

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY.

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES.

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

5/2/2018 WA0030



Fire and Rescue Apparatus

Ten (10) Year Material and Workmanship Stainless Steel Piping Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	Stainless steel piping shall be free from structural failures caused by defects in material and workmanship, or perforation caused by corrosion.
Warranty Begins:	The date of the original purchase invoice (issued when the product ships from the factory).
Warranty Period Ends After:	Ten (10) Years - or - 100,000 Miles
Conditions and Exclusions: See Also Paragraphs 2 thru 4	Pierce's obligation under this warranty is limited to repairing or replacing without charge, as Pierce may elect, the stainless steel piping or components which Pierce determines to have failed due to defective material and workmanship, or perforation caused by corrosion. This warranty does not cover the use of fluoroprotein (FP) type foam. The sodium chloride within FP foam can cause long-term damage to system components if not thoroughly flushed immediately after use.

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.



Fire and Rescue Apparatus

Six (6) Year Material and Workmanship

PUC Pump

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	The PUC Pump and its components manufactured under the Pierce brand in its Fire and Rescue Apparatus vehicle shall be free from failures caused by defects in material and workmanship
Warranty Begins:	The date of the original purchase invoice (issued when the product ships from the factory).
Warranty Period Ends After:	Six (6) Years - or - 3000 Pump Hours
Conditions and Exclusions: See Also Paragraphs 2 thru 4	This limited warranty applies to the PUC Pump and all its components manufactured under the Pierce brand. Items not manufactured under the Pierce brand such as valves, relief valves or wear items such as wear rings, seals, bearings or costs of removal, transporting, storing, or reinstallation are not covered by this six-year limited warranty and are instead covered under the Pierce Basic One Year Limited Warranty.

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

2/8/2010 WA0039



Fire and Rescue Apparatus

Ten (10) Year Pro-Rated Paint and Corrosion

Cab

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	Exterior surfaces of the cab painted by Pierce shall be free from blistering, peeling, corrosion or any other adhesion defect caused by defective manufacturing methods or paint material selection.
Warranty Begins:	The date of the original purchase invoice (issued when the product ships from the factory).
Warranty Period Ends After:	Ten (10) Years
Conditions and Exclusions:	This limited warranty is applicable to the vehicle in the following percentage costs of warranty repair, if any: Topcoat Durability & Appearance: Gloss, Color Retention & Cracking 0-72 months 100% 73-96 months 50% 97-120 months 25% Integrity of Coating System: Adhesion, Blistering/Bubbling 0-36 months 100% 37-84 months 50% 85-120 months 25% Corrosion: Dissimilar Metal and Crevice 0-36 months 100% 37-48 months 50% 49-72 months 25% 73-120 months 10% Corrosion Perforation 0-120 months 100% This limited warranty applies only to exterior paint. Paint on the vehicle's interior is warranted only under the Pierce Basic One Year Limited Warranty. Items not covered by this warranty include: (a) Damage from lack of maintenance and cleaning (proper cleaning and maintenance procedures are detailed in the Pierce operation and maintenance manual). (b) UV paint fade. (c) Any cab not manufactured by Pierce.

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

2/8/2010 WA0055



Fire and Rescue Apparatus

Ten (10) Year Pro-Rated Paint and Corrosion

Custom Body

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	Exterior surfaces of the body shall be free from blistering, peeling, corrosion or any other adhesion defect caused by defective manufacturing methods or paint material selection.
Warranty Begins:	The date of the original purchase invoice (issued when the product ships from the factory).
Warranty Period Ends After:	Ten (10) Years
Conditions and Exclusions:	This limited warranty is applicable to the vehicle in the following percentage costs of warranty repair, if any: Topcoat Durability & Appearance: Gloss, Color Retention & Cracking 0-72 months 100% 73-96 months 50% 97-120 months 25% Integrity of Coating System: Adhesion, Blistering/Bubbling 0-36 months 100% 37-84 months 50% 85-120 months 25% Corrosion: Dissimilar Metal and Crevice 0-36 months 100% 37-48 months 50% 49-72 months 25% 73-120 months 10% Corrosion Perforation 0-120 months 100% This limited warranty applies only to exterior paint. Paint on the vehicle's interior is warranted only under the Pierce Basic One Year Limited Warranty. Items not covered by this warranty include: (a) Damage from lack of maintenance and cleaning (proper cleaning and maintenance procedures are detailed in the Pierce operation and maintenance manual). (b) UV paint fade. (c) Any cab not manufactured by Pierce.

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

2/8/2010 WA0057

NEW PRODUCT WARRANTY



**PARTICIPATING OEM SALES
DISTRIBUTOR SALES**

LIMITED WARRANTY ON NEW ALLISON AUTOMATIC TRANSMISSIONS USED IN EMERGENCY VEHICLE APPLICATIONS

Allison Transmission will provide for repairs or replacement, at its option, during the warranty period of each new Allison transmission listed below that is installed in an Emergency Vehicle in accordance with the following terms, conditions, and limitations.

WHAT IS COVERED

- **WARRANTY APPLIES** — This warranty is for new Allison transmission models listed below installed in an Emergency Vehicle and is provided to the original and any subsequent owner(s) of the vehicle during the warranty period.
- **REPAIRS COVERED** — The warranty covers repairs or replacement, at Allison Transmission's option, to correct any transmission malfunction resulting from defects in material or workmanship occurring during the warranty period. Needed repairs or replacements will be performed using the method Allison Transmission determines most appropriate under the circumstances.
- **TOWING** — Towing is covered to the nearest Allison Transmission Distributor or authorized Dealer only when necessary to prevent further damage to your transmission.
- **PAYMENT TERMS** — Warranty repairs, including parts and labor, will be covered per the schedule shown in the chart contained in section "APPLICABLE MODELS, WARRANTY LIMITATIONS, AND ADJUSTMENT SCHEDULE."
- **OBTAINING REPAIRS** — To obtain warranty repairs, take the vehicle to any Allison Transmission Distributor or authorized Dealer within a reasonable amount of time and request the needed repairs. A reasonable amount of time must be allowed for the Distributor or Dealer to perform necessary repairs.
- **TRANSMISSION REMOVAL AND REINSTALLATION** — Labor costs for the removal and re-installation of the transmission, when necessary to make a warranty repair, are covered by this warranty.
- **WARRANTY PERIOD** — The warranty period for all coverages shall begin on the date the transmission is delivered to the first retail purchaser, with the following exception:

Demonstration Service - A transmission in a new truck or bus may be demonstrated to a total of 5000 miles (8000 kilometers). If the vehicle is within this limit when sold to a retail purchaser, the warranty start date is the date of purchase. Normal warranty services are applicable to the demonstrating Dealer. Should the truck or bus be sold to a retail purchaser after these limits are reached, the warranty period will begin on the date the vehicle was first placed in demonstration service and the purchaser will be entitled to the remaining warranty.

APPLICABLE MODELS, WARRANTY LIMITATIONS, AND ADJUSTMENT SCHEDULE

APPLICABLE MODELS	WARRANTY LIMITATIONS (Whichever occurs first)		ADJUSTMENT CHARGE TO BE PAID BY THE CUSTOMER	
	Months	Transmission Miles Or Kilometers	Parts	Labor
MT, MD 3000, 3200, 3500, 3700	0-24	No Limit	No Charge	No Charge
HT with Hydraulic Controls	0-24	No Limit	No Charge	No Charge
AT, 1000 Series™, 2000 Series™, 2400 Series™	0-36	No Limit	No Charge	No Charge
HT with Electronic Controls	0-60	No Limit	No Charge	No Charge
HD 1000 EVS, 2100 EVS, 2200 EVS 2350 EVS, 2500 EVS, 2550 EVS, 3000 EVS, 3500 EVS, 4000, 4000 EVS, 4500, 4500 EVS, 4700, 4700 EVS, 4800, 4800 EVS	0-60	No Limit	No Charge	No Charge

WHAT IS NOT COVERED

- **DAMAGE DUE TO ACCIDENT, MISUSE, or ALTERATION** — Defects and damage caused as the result of any of the following are not covered:
 - Flood, collision, fire, theft, freezing, vandalism, riot, explosion, or objects striking the vehicle;
 - Misuse of the vehicle;
 - Installation into unapproved applications and installations;
 - Alterations or modification of the transmission or the vehicle, and
 - Damage resulting from improper storage (refer to long-term storage procedure outlined in the applicable Allison Service Manual)
 - Anything other than defects in Allison Transmission material or workmanship

NOTE: This warranty is void on transmissions used in vehicles currently or previously titled as salvaged, scrapped, junked, or totaled.

- **CHASSIS, BODY, and COMPONENTS** — The chassis and body company (assemblers) and other component and equipment manufacturers are solely responsible for warranties on the chassis, body, component(s), and equipment they provide. Any transmission repair caused by an alteration(s) made to the Allison transmission or the vehicle which allows the transmission to be installed or operated outside of the limits defined in the appropriate Allison Installation Guideline is solely the responsibility of the entity making the alteration(s).
- **DAMAGE CAUSED by LACK of MAINTENANCE or by the USE of TRANSMISSION FLUIDS NOT RECOMMENDED in the OPERATOR'S MANUAL** — Defects and damage caused by any of the following are not covered:
 - Failure to follow the recommendations of the maintenance schedule intervals applicable to the transmission;
 - Failure to use transmission fluids or maintain transmission fluid levels recommended in the Operator's Manual.
- **MAINTENANCE** — Normal maintenance (such as replacement of filters, screens, and transmission fluid) is not covered and is the owner's responsibility.
- **REPAIRS by UNAUTHORIZED DEALERS** — Defects and damage caused by a service outlet that is not an authorized Allison Transmission Distributor or Dealer are not covered.
- **USE of OTHER THAN GENUINE ALLISON TRANSMISSION PARTS** — Defects and damage caused by the use of parts that are not genuine Allison Transmission parts are not covered.
- **EXTRA EXPENSES** — Economic loss and extra expenses are not covered. Examples include but are not limited to: loss of vehicle use; inconvenience; storage; payment for loss of time or pay; vehicle rental expense; lodging; meals; or other travel costs.
- **"DENIED PARTY" OWNERSHIP** — Warranty repair parts and labor costs are not reimbursed to any participating or non-participating OEMs, dealers or distributors who perform warranty work for, or on behalf of, end users identified by the United States as being a "denied party" or who are citizens of sanctioned or embargoed countries as defined by the U.S. Department of Treasury Office of Foreign Assets Control. Furthermore, warranty reimbursements are not guaranteed if the reimbursement would be contrary to any United States export control laws or regulations as defined by the U.S. Department of Commerce, the U.S. Department of State, or the U.S. Department of Treasury.

OTHER TERMS APPLICABLE TO CONSUMERS AS DEFINED by the MAGNUSON-MOSS WARRANTY ACT

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

Allison Transmission does not authorize any person to create for it any other obligation or liability in connection with these transmissions.

ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE APPLICABLE TO THESE TRANSMISSIONS IS LIMITED IN DURATION TO THE DURATION OF THIS WRITTEN WARRANTY. PERFORMANCE OF REPAIRS AND NEEDED ADJUSTMENTS IS THE EXCLUSIVE REMEDY UNDER THIS WRITTEN WARRANTY OR ANY IMPLIED WARRANTY. ALLISON TRANSMISSION SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES (SUCH AS, BUT NOT LIMITED TO, LOST WAGES OR VEHICLE RENTAL EXPENSES) RESULTING FROM BREACH OF THIS WRITTEN WARRANTY OR ANY IMPLIED WARRANTY.**

** Some states do not allow limitations on how long an implied warranty will last or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

OTHER TERMS APPLICABLE TO OTHER END-USERS

THIS WARRANTY IS THE ONLY WARRANTY APPLICABLE TO THE ALLISON TRANSMISSION MODELS LISTED ABOVE AND IS EXPRESSLY IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. ALLISON TRANSMISSION DOES NOT AUTHORIZE ANY PERSON TO CREATE FOR IT ANY OTHER OBLIGATION OR LIABILITY IN CONNECTION WITH SUCH TRANSMISSIONS. ALLISON TRANSMISSION SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM BREACH OF THIS WARRANTY OR ANY IMPLIED WARRANTY.

QUESTIONS

If you have any questions regarding this warranty or the performance of warranty obligations, you may contact any Allison Transmission Distributor or Dealer or write to:

Allison Transmission, Inc.
P.O. Box 894
Indianapolis, IN 46206-0894
Attention: Warranty Administration PF-9

Form SE0616EN (201009)



Fire and Rescue Apparatus

54 Months Material and Workmanship

Camera System

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	This limited warranty covers repairs to correct any defect related to materials or workmanship of the Sharpvision camera system installed on the apparatus occurring during the warranty period.
Warranty Begins:	The date of delivery.
Warranty Period Ends After:	Fifty - Four (54) months
Conditions and Exclusions: See Also Paragraphs 2 thru 4	This limited warranty does not apply to related wire harnesses, cables, and connectors, which are covered by the Pierce one (1) year basic apparatus limited warranty.

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

1/11/2011 WA0188



Pierce Warranty Statement for Gortite Roll Up Doors Rev 2/24/2011

All mechanical components of the door shall be warranted to be free from defects in materials and workmanship for the lifetime of the vehicle. All parts covered under this warranty shall be to the original owner.

A&A manufacturing warrants that painted doors shall be free of blistering, peeling, bubbling, or any other adhesion defect caused by defective manufacturing methods or paint material selection. The time period for the coverage shall be 6 years from date of door shipment to Pierce. Satin anodized finish doors shall be warranted for 6 years against corrosion defects from date of door shipment to Pierce. Replacement of decals/Scotchlite is not covered.

The maximum amount A&A will reimburse for labor is \$60.00 per hour and the maximum amount of time allowed for repair is as follows:

Door	1.0 Hr.
Slat Replacement	1.0 Hr.
Pennant Plate Replacement	1.0 Hr.
Roller Replacement	.5 Hr.
Seal Replacement	.5 Hr.
Switch/Magnet Replacement	1.0 Hr.
Travel Time	4.0 Hr.



LIFETIME SERVICE WARRANTY

United Plastic Fabricating, Inc. (hereinafter called "UPF") warrants each POLY-TANK®, Booster/Foam Tank POLYSIDE® Wetside Tank, Integrator Tank/Body, ELLIPSE™ Elliptical Tank, Ellip-T-Tank Tank and DEFENDER™ Skid Tank to be free from defects in material and workmanship for the service life of the original vehicle (vehicle must be actively used in an emergency response for fire suppression). All UPF Tanks must be installed and operated in accordance with the UPF Installation and Operating Guidelines. Failure to do so can void the warranty.

Every UPF Tank is inspected and tested before leaving our facility. Should your UPF Tank require service, please notify UPF via email, fax, in writing or by calling UPF at 1-978-975-4520. Please provide the serial number, a description of the service request, the location along with the phone number and name of the contact person. Our goal is to have scheduled work completed within a reasonable time period.

Under a valid warranty claim, UPF will cover the cost to repair the UPF Tank including the customary and reasonable costs to make the tank accessible such as the removal and reinstallation of the tank if authorized in advance (pre-approved) by UPF. The warranty will not cover tanks that have been improperly installed, operated, misused, abused, or modified from its intended or designed use. Serial number must not have been altered, defaced or removed. Tanks that are not stored or installed properly which results in the tank suffering UV damage will not be covered by this agreement.

Should UPF determine that the service claim is valid under this warranty for a tank located outside of the United States and Canada, UPF will assume the costs for labor and material for the warranty repair as described above plus all travel costs to the U.S. port of embarkation. Costs for airline travel outside of the U.S. and Canada will not be the responsibility of UPF.

In the event the tank shall become stationed in an area of the world that is considered to be a war zone or where unsafe conditions exist for the safe passage of United States Nationals, as reported by the United States Department of State, (<http://www.state.gov>), and a request to perform service or warranty repairs, UPF reserves the right to refuse to honor such requests. It is the purchaser's responsibility to relocate the tank to an area where such repairs can be performed without undue risk to UPF employees or their designee. UPF will make every reasonable effort to support our products through alternative means.

For Ellipse™ elliptical tanks, a separate five year warranty provided by the subcontractor is applied to the sub-frames, chute linings (rubber isolation strips) and metal components. The stainless steel wrap provided by UPF shall be warranted by the subcontractor performing the wrap installation in accordance with their warranty in place at the time of the installation. UPF will not be liable for any warranty costs associated with the wrap, sub-frames, chute linings (rubber isolation strips) and metal components but will assist with all claims on behalf of its customer.

For PolySide® wetsided tanks and Integrator™ Tank/Body units, all polypropylene components related to the tank shall carry the standard UPF lifetime

UNITED PLASTIC FABRICATING, INC.

WARRANTY

FOR: POLY-TANK®, POLYSIDE®, INTEGRATOR™, ELLIPSE™, ELLIP-T-TANK™ & DEFENDER™

service warranty. Other polypropylene components, including but not limited to compartments, wheel wells, fenders and other body related components shall be warranted by UPF for a period of ten years. The warranty for the PolySide® and Integrator™ units excludes paint or hardware, which shall be covered by the manufacturer of the paint/hardware.

All UPF tanks 50 gallons or less utilized for non-fire applications and installed on specialty vehicles such as ATVs, trailers, boats, etc. are covered under a separate warranty policy available from UPF. Further, UPF Protector™ foam and water trailers are warranted under a separate warranty policy available from UPF.

This UPF warranty is transferable within the United States only with prior written approval by UPF (except an original apparatus manufacturer may assign this warranty to the first titled owner/lessee of the apparatus).

UPF will NOT reimburse any unnecessary work and/or work that has not been pre-approved. Any and all third party charges must be pre-authorized and approved in writing by UPF prior to commencing the work. Any unauthorized third party repairs, alterations, actions or modifications will not be covered and can void the warranty. UPF will be the sole determining authority as to whether a service claim will be valid and covered under this warranty.

In no event will UPF be liable for an amount in excess of the purchase price of the booster/foam tank at the time of manufacture or for any loss or damage, whether direct, indirect, incidental, consequential, or otherwise arising out of failure of its product. Loss of contents (water, foam, etc.) shall not be the responsibility of UPF. Further, UPF is not responsible for costs associated with service repairs to chassis, sub-frames, bodies, valves, dumps, hoses, pressure vacuum vents, and other components (i.e. liquid level transducers, etc.). Further, UPF will not cover the cost for travel of the vehicle to and from a repair facility.

This warranty contains the entire warranty. It is the sole warranty and price agreements or representation, whether oral or written, are either merged herein or expressly cancelled. UPF neither assumes, nor authorizes any person supposing to act on its behalf to change, nor assume for it, any warranty or liability concerning its product.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow exclusion or limitation or incidental or consequential damage, so the above limitation or exclusion may not apply to you. Since some states do not allow limitations on the length of an implied warranty, the above limitation may not apply to you.

THERE ARE NO WARRANTIES, EXPRESSED OR IMPLIED, WHICH EXTEND BEYOND THE DESCRIPTION OF THE FACE HEREOF. THERE IS NO EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR A WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. ADDITIONALLY, THIS WARRANTY IS IN LIEU OF ALL OTHER OBLIGATION OR LIABILITIES ON THE PART OF UPF.

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TRW COMMERCIAL STEERING SYSTEMS
800 HEATH STREET
LAFAYETTE, INDIANA 47904



PRODUCT WARRANTY

- I. WARRANTY:** The Commercial Steering Systems group of TRW, Inc., hereinafter referred to as "CSS", warrants that each new product supplied by CSS to its customer, when properly installed, used and maintained, shall be free from defect in material and workmanship for the period specified below:
- (A) CSS Product installed in **New On-highway Motor Vehicle:**
- Within twelve (12) months after date of delivery of such vehicle to the original retail purchaser, or before such vehicle has been driven one hundred thousand (100,000) miles, whichever event shall first occur.
- (B) CSS Product installed in **New Agricultural, Turf, Industrial, or Construction Vehicles and Related Equipment**
- Within twelve (12) months after date of delivery of such vehicle/equipment to the original retail purchaser or before such vehicle/equipment has been operated for two thousand (2000) hours or fifty thousand (50,000) miles, whichever occurs first.
- (C) CSS Product installed in **New End Product, Not Specifically Mentioned in Classifications (A) or (B) Above and All Other Off-Highway/Severe Applications:**
- Within six (6) months after date of delivery of the original equipment manufacturer's end product to the original retail purchaser.
- II. REMEDY:** Customer's sole remedy under the foregoing warranty is limited to correction by means of repair, replacement or issuance of credit, at the option of CSS, of any product which is:
- (A) Returned to CSS within the specified warranty time period, with prior notice to, and the written consent of, CSS, with transportation and handling charges prepaid, together with a statement describing the alleged defect, the part number, model number and application, and mileage or hours of use of such product; and
- (B) Upon examination, determined by CSS not to conform to the warranty.
- III.** Any product which is repaired or replaced under this warranty will be returned to customer prepaid. Disposition of any product determined not to be covered by this warranty will be at the customer's expense.
- IV.** CSS will not be liable for any repairs, replacements, or adjustments to any product or any cost of labor performed by or at the request of customer without the express prior written consent of CSS.
- V. EXCEPTIONS:** The provision of this warranty shall not apply to any CSS product which is used for a purpose for which it is not designed, or which shall have been repaired or altered in any way, or which has been subject to misuse, negligence or accident, neglect of normal maintenance services, so as, in the judgement of CSS to adversely affect its performance and reliability. In no case will the CSS warranty exceed the standard published warranty of its customer in terms of time and/or distance. In all events, the CSS warranty will expire thirty (30) months after the date of manufacture as stamped on the Product. In the case of hydraulic equipment, operation with unapproved fluid or temperatures voids this warranty.
- VI. EXCLUSION OF ALL OTHER REMEDIES AND LIMITATION OF LIABILITY:** Customer's sole and exclusive remedy under the foregoing warranty shall be for the repair, replacement or issuance of credit with respect to a defective product, as set forth and described above. Other provisions hereof notwithstanding, CSS shall not be liable to Customer, or any successor in interest, beneficiary or assignee of Customer, based upon any claim against CSS, whether in contract, warranty, negligence, strict liability, indemnity or otherwise, for any special, consequential, incidental or other damages relating in any way to the design, manufacture, sale, installation or other use of any product purchased from CSS.
- VII. EXCLUSION OF ALL OTHER WARRANTIES: THE FOREGOING WARRANTY IS THE EXCLUSIVE WARRANTY BY CSS AND IS IN LIEU OF AND EXCLUDES ALL OTHER WARRANTIES AND REPRESENTATIONS, WHETHER ORAL, WRITTEN, EXPRESSED, IMPLIED OR STATUTORY, INCLUDING BUT NOT LIMITED TO ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**

TRW COMMERCIAL STEERING SYSTEMS

Revised November 2001



Fire and Rescue Apparatus

Ten (10) Year Material and Workmanship

Pierce 12V LED Strip Light

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	This limited warranty covers repairs to correct any defect related to materials or workmanship of the Pierce 12V LED strip lights installed on the apparatus occurring during the warranty period.
Warranty Begins:	The date of the original purchase invoice (issued when the product ships from the factory).
Warranty Period Ends After:	Ten (10) Year
Conditions and Exclusions: See Also Paragraphs 2 thru 4	This limited warranty does not apply to related wire harnesses, cables, and connectors, which are covered by the Pierce one (1) year basic apparatus limited warranty.

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY.

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES.

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

7/5/2011 WA0203



Fire and Rescue Apparatus

Five (5) Year Material and Workmanship - Transmission Oil Cooler Three (3) Year Collateral Damage Coverage

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	The transmission cooler shall be free from component or structural failures caused by defects in material and/or workmanship. Collateral damage up to \$10,000 per occurrence is available for the first three (3) years.
Warranty Begins:	The date of delivery to the first retail purchaser.
Warranty Period Ends After:	Five (5) Years on Oil Cooler and three (3) years on collateral damage coverage
Conditions and Exclusions: See Also Paragraphs 2 thru 4	This warranty does not cover repair due to accidents, misuse, and excessive vibration, flying debris, storage damage (freezing), negligence or modification. This warranty is void if any modification or repairs are performed without authorization. This also voids any future warranty. This warranty does not cover cost of maintenance or repairs due to lack of required maintenance services as recommended. Performance of the required maintenance and use of proper fluids are the responsibility of the owner. Towing is covered to the nearest distributor or authorized dealer only when necessary to prevent further damage to your transmission. Labor costs for the removal and reinstallation of goods may be covered when necessary to make repairs. Please contact your OEM for authorization. Replacement of cooler during the warranty period is limited to 100% of reasonable labor costs up to a maximum of \$700 to remove, replace, or repair the oil cooler.

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.



Fire and Rescue Apparatus

One (1) Year Material and Workmanship Foam System & Five (5) Year Material and Workmanship Control Head

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	Limited warranty 1 year parts and labor for the foam system and 5 years parts and labor for the control head.
Warranty Begins:	The date of the original purchase invoice (issued when the product ships from the factory).
Warranty Period Ends After:	One (1) Year & Five (5) Year
Conditions and Exclusions: See Also Paragraphs 2 thru 4	This warranty does not cover repair due to accidents, misuse, and excessive vibration, flying debris, storage damage (freezing), negligence or modification. This warranty is void if any modification or repairs are performed without authorization. This also voids any future warranty. This warranty does not cover cost of maintenance or repairs due to lack of required maintenance services as recommended. Performance of the required maintenance and use of proper fluids are the responsibility of the owner.

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.



Fire and Rescue Apparatus

Three (3) Year Material and Workmanship Meritor Wabco ABS Brake System Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the Buyer:

Coverage:	The Meritor Wabco ABS brake system shall be covered by Meritor Wabco as indicated in the attached Meritor Wabco warranty coverage description
Warranty Begins:	The date of the original purchase invoice (issued when the product ships from the factory).
Warranty Period Ends After:	Three (3) Year
Conditions and Exclusions: See Also Paragraphs 2 thru 4	The exclusions listed in the attached Meritor Wabco warranty description shall apply.

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

2/25/2013 WA0232



MERITOR WABCO

Safety Strong. Efficiency Smart.

Warranty
Model Year 2018 Vehicles

SIMPLER IS BETTER

Warranty coverage is essential to protecting your investment. But understanding the full details of your coverage can be challenging. This straightforward approach allows you, our valued customer, to better understand how your specific vehicle applications will be covered in your region. Our component warranty coverage is provided according to vocation/usage categories listed below.

- Linehaul covers high mileage operation (over 60,000 miles/year) on well maintained major highways of concrete or asphalt construction.
- General Service covers moderate mileage operations (less than 60,000 miles/year) on well maintained public roads (less than 10 percent off-road) typically with less than three (3) stops per mile.
- Heavy Service (Vocational) covers vehicles with more than 10 percent off-road OR moderate to frequent starts/stops typically with more than three (3) stops per mile.
- Off-Highway Service covers lower mileage operations. Vehicles are not typically licensed for highway use.

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How to Read Warranty Coverage (Example)

Number of Years	Mileage (in thousands) Unl=Unlimited	P=Parts Only P&L=Parts & Labor
3	300	P

HEAVY SERVICE (VOCATIONAL) WARRANTY INFORMATION

Heavy Service Vehicles

- Airport Rescue Fire (ARF)
- Airport Shuttle
- Asphalt Truck
- Block Truck
- Bottom Dump Trailer Combination
- Cementing Vehicle
- City Bus
- Commercial Pick-Up
- Concrete Pumper
- Construction Material Hauler
- Crash Fire Rescue (CFR)
- Mixer
- Demolition
- Drill Rig
- Dump
- Emergency Service
- Equipment Hauling
- Flatbed Trailer Hauler
- Flatbed Truck
- Fracturing Truck
- Front Loader
- Geophysical Exploration
- Hopper Trailer Combinations
- Landscaping Truck
- Liquid Waste Hauler
- Log Hauling
- Lowboy
- Michigan Special Gravel Trains
- Michigan Special Log Hauler
- Michigan Special Steel Hauler
- Michigan Special Waste Vehicle
- Municipal Dump
- Newspaper Delivery
- Package Delivery
- Pick-up and Delivery
- Rapid Intervention Vehicle (RIV)
- Rear Loader
- Recycling Truck
- Residential Pick-Up/Waste
- Rigging Truck
- Roll-Off
- Scrap Truck
- Semi-End Dump
- Sewer/Septic Vacuum
- Shuttle Bus
- Side Loader
- Snowplow/Snowblower
- Steel Hauling
- Tanker
- Tank Truck
- Tractors with Pole Trailers
- Tractor/Trailer with Jeeps
- Transfer Dump
- Transfer Vehicle
- Transit Bus
- Trolley
- Utility Truck
- Winch Truck

Heavy Service Typically Is

- On/Off road vocations (10% or more off-road) OR
- Moderate to frequent starts/stops typically more than three (3) stops per mile

Meritor WABCO Components¹

ABS (Anti-Lock Braking System) Air	3/300/P&L
ABS (Anti-Lock Braking System) Hydraulic	2/200/P&L
Electronic Braking System (EBS)	3/300/P&L
Electronic Stability Control (ESC)	3/300/P&L
Roll Stability Control (RSC)	3/300/P&L
Air Dryers (ALL)	1/100/P&L
Leveling Valves	1/100/P&L
Air Brake Valves	1/100/P&L
Emission Valves (SCR)	2/200/P&L
Clutch Controls	2/200/P&L
Air Compressors (ALL) ²	1/100/P&L
OnGuard™	3/300/P&L
OnGuardACTIVE™	3/300/P&L
OnLane™ Lane Departure Warning	3/300/P&L
Blind Spot Detection	3/300/P&L
OptiRide™	2/200/P&L
Trailer Roll Stability Support (RSS)	3/300/P&L
Trailer Control Line Filter ³	1/100/P&L
Trailer ABS Valve ³	3/300/P&L

¹ WABCO and Meritor WABCO branded components.

² WABCO compressors installed on Cummins, Mercedes, and DDC engines are not warranted or serviced by Meritor WABCO. Please contact your respective dealer/distributor of those engines for warranty and servicing.

³ An extended warranty of 4/400/P will be applied when a Meritor WABCO Trailer Control Line Filter is used in combination with a Meritor WABCO Trailer ABS valve.



TERMS AND CONDITIONS

Coverage Exclusions

Product Description

All

The cost of any repairs, replacements or adjustments to a covered product due to the following: (1) damage to the product or its component parts caused by incorrect use, installation, maintenance or repair, including without limitation (a) improper fit of mating components or brackets, (b) damaged threads, (c) cut, broken, chafed, pinched or otherwise damaged wiring (sensors, harnesses and connectors), (d) damaged sensors from removal when seized in block, or associated with sensor adjustments/alignments, and (e) damage resulting from the use or installation of non-genuine Meritor WABCO components or materials; (2) damage to the product, its component parts, or diminished product or component part performance due to incorrect operation, deviation from approved conditions or misapplication; (3) any unauthorized disassembly of the product or its component parts including without limitation (a) obliterated, defaced or missing WABCO or Meritor WABCO name plate, serial numbers or label identifying the device as a Meritor WABCO product or WABCO component, (b) changes to sealed adjusting screws, and (c) opening or attempted repair of non-serviceable components; (4) malfunction of the component due to internal contamination out of the vehicle system including without limitation (a) water and other contamination damage that is due to the use of a non-genuine air dryer cartridge or (b) valve failures due to contamination in air system, (5) complaints associated with noise, (6) damage resulting from corrosion (including oxidation of electrical devices and connections).

Air Dryers

Mounting brackets (see vehicle OEM). Desiccant cartridge housing only.

Air System Components

Normal wear items; Gladhand seals, dash valve knobs, valve actuation handles, treadles, pedals.

ABS, Electronic Stability Control (ESC), Roll Stability Control (RSC), OptiRide™, OnGuard™ and OnLane™, collectively “Electronics”

Failure of electronic components due to overvoltage condition, improper grounding, electrostatic discharge (ESD), improper shielding, electromagnetic interference (EMI), or other wiring or installation issues.

Malfunctions and failure codes caused by other electronic subsystem failures (data bus, engine, transmission, dashboard, etc.)

Hydraulic Components

For certain components, brake fluid DOT3 or DOT4 is used as the operating medium. Use of any other fluid will void all warranties associated with that component. For hydraulic braking applications the brake fluid is considered a maintenance item. Maintenance intervals are listed in TB-1367.

Coverage Limitations

Product Description

All

Any claim beyond 60 days from date of repair will not be accepted or honored under this warranty program.

Products purchased on an incomplete vehicle (glider) are limited to one year, 1/Unl/P.

For vehicles that operate full- or part-time outside of the United States and Canada, a 1-Year/Unlimited Miles parts only (1/Unl/P) will apply.

TOOLBOX™ Software

Proper diagnostics of Meritor WABCO Electronics may require the latest version of TOOLBOX™. Additional labor due to use of an outdated version of TOOLBOX™. TOOLBOX™ software, and/or the time to purchase or install latest version of TOOLBOX™ are not covered under product warranty.

TERMS AND CONDITIONS

(1) What is Covered by this Commercial Warranty?

Meritor WABCO Vehicle Control Systems warrants to the owner ("Owner") that the components listed in this publication, which have been installed by an Original Equipment Manufacturer ("OEM") as original equipment will be free from defects in material and workmanship. This warranty coverage begins from the original in-service date to the limits provided and runs concurrently with any warranties provided by OEMs and/or any service contracts that cover the components listed in this publication, if any. If the components listed in this publication are covered by an OEM warranty and/or service contract, then the OEM's warranty and/or service contract shall supersede Meritor WABCO's warranty and Owner shall comply with all OEM's warranty and/or service contract requirements for claims under such OEM's warranty and/or service contract until those agreements expire. Once those agreements expire and provided the Meritor WABCO warranty has not expired under the terms stated above, the Meritor WABCO warranty would be in effect until its expiration date.

Warranty coverage ends at the expiration of the applicable time period from the date of vehicle purchase by the first Owner, or, the applicable mileage limitation, whichever occurs first. Duration of coverage varies by component and vocation as detailed previously in this publication. Some components are warranted for parts only and the Owner must pay any labor costs associated with the repair or replacement of the component. Other components are warranted for both parts and reasonable labor to repair or replace the subject component. Additional diagnostic time due to use of an outdated version of TOOLBOX™, time to purchase or install latest version of TOOLBOX™ are the responsibility of the authorized Meritor WABCO service location and are not covered under product warranty. Components installed as replacements under this warranty are warranted only for the remainder of the original period of time or mileage under the original warranty.

(2) Designation of Vocational Use Required.

To obtain warranty coverage, each Owner must notify Meritor WABCO through the OEM new truck and/or trailer dealer of the intended vocational use of the vehicle into which the Meritor WABCO components have been incorporated prior to the vehicle in-service date. This notification may be accomplished by registering the vehicle through your OEM new truck and/or trailer dealer or with Meritor WABCO directly. Failure to notify Meritor WABCO of (I) the intended vocational use of the vehicle or (II) a change in vocational use from that which was originally designated, will result in the application of a one year, unlimited mileage, parts only warranty (1/Unl/P) from the initial in-service date.

A second Owner and each subsequent Owner must also notify Meritor WABCO as to the intended vocational use of the vehicle. This notification can be sent directly to Meritor WABCO or through the OEM new truck and/or trailer dealer. The duration and mileage coverage of this warranty cannot exceed the coverage extended to the first Owner after his or her initial designation of vocational use.

Coverage under Meritor WABCO's warranty requires that the application of products be properly approved pursuant to OEM and Meritor WABCO, approvals.

(3) What is the Cost of this Warranty?

There is no charge to the Owner for this warranty.

(4) What is not Covered by this Warranty?

In addition to the items listed on page 7, this warranty does not cover normal wear and tear, or service items; nor does it cover a component that fails, malfunctions or is damaged as a result of

(a) improper handling, storage, installation, adjustment, repair or modification including the use of unauthorized attachments or changes or modification in the vehicle's configuration, usage, or vocation from that which was originally approved by Meritor WABCO, (b) accident, fire or other casualty, natural disaster, road debris, negligence, misuse, abuse, or improper use (including loading beyond the specified maximum vehicle weight or altering engine power settings to exceed the brake system capacity), or (c) improper or insufficient maintenance (including deviation from maintenance intervals, approved lubricants, or lube levels). This warranty does not cover any component or part that is not sold by Meritor WABCO.

(5) Remedy.

The exclusive remedy under this warranty shall be the repair or replacement of the defective component at Meritor WABCO's option. Meritor WABCO reserves the right to require that all applicable covered components are available and/or returned to Meritor WABCO for review and evaluation.

(6) DISCLAIMER OF WARRANTY.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES OR CONDITIONS, EXPRESS, IMPLIED OR STATUTORY INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE. SOME STATES LIMIT OR DO NOT ALLOW THE DISCLAIMER OF IMPLIED OR OTHER WARRANTIES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO THE EXTENT SUCH STATE'S LAW IS APPLICABLE TO THESE TERMS.

(7) LIMITATION OF REMEDIES.

IN NO EVENT SHALL MERITOR WABCO BE LIABLE FOR SPECIAL, INCIDENTAL, INDIRECT, OR CONSEQUENTIAL DAMAGES OF ANY KIND OR UNDER ANY LEGAL THEORY, INCLUDING, BUT NOT LIMITED TO, TOWING, DOWNTIME, LOST PRODUCTIVITY, CARGO DAMAGE, TAXES, LOST PROFITS, COSTS OF PROCUREMENT OF A SUBSTITUTE COMPONENT OR ANY OTHER LOSSES OR COSTS RESULTING FROM A COVERED COMPONENT. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF SPECIAL, INCIDENTAL, INDIRECT OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO THE EXTENT SUCH STATE'S LAW IS APPLICABLE TO THESE TERMS.

(8) TIME LIMIT ON COMMENCING LEGAL ACTION.

ANY LEGAL ACTION OR CLAIM ARISING FROM OR RELATED TO THIS WARRANTY, IN CONTRACT OR OTHERWISE, MUST BE COMMENCED WITHIN ONE YEAR FROM THE ACCRUAL OF THAT CAUSE OF ACTION, OR BE BARRED FOREVER.

(9) To Obtain Service.

If the Owner discovers within the applicable coverage period a defect in material or workmanship, the Owner must promptly give notice to either Meritor WABCO or the dealer from which the vehicle was purchased. To obtain service, the vehicle must be taken to any participating OEM new truck and/or trailer dealer or authorized Meritor WABCO service location. The dealer will inspect the vehicle and contact Meritor WABCO for an evaluation of the claim. When authorized by Meritor WABCO, the dealer will repair or replace during the term of this warranty any defective Meritor WABCO component covered by this warranty.

(10) Entire Agreement.

This is the entire agreement between Meritor WABCO and the Owner about warranty and no Meritor, Meritor WABCO employee, or dealer is authorized to make any additional warranty on behalf of Meritor WABCO unless in writing and signed by an authorized representative of Meritor WABCO.

For more information on
Meritor WABCO Warranty, call
our OnTrac Customer Service team
at 866-OnTrac1 (866-668-7221)
or visit meritorwabco.com.



Fire and Rescue Apparatus

SUPPLIER

Limited Warranty

1. LIMITED WARRANTY

Subject to the limitations and exclusions set forth below, Pierce Manufacturing provides the following warranty to the purchaser who first puts the product in service ("Buyer"):

Coverage:	Covers any failures of the engine which result, under normal use and service, from a defect in material or factory workmanship.
Warranty Begins:	The date of the original buyer invoice.
Warranty Period Ends After:	Five (5) years or 100,000 miles, whichever occurs first
Conditions and Exclusions: See Also Paragraphs 2 thru 4	See warranty for exclusions.

This limited warranty shall apply only if the product is properly maintained in accordance with Pierce's maintenance instructions and manuals and is used in service which is normal to the particular model. Normal service means service which does not subject the product to stresses or impacts greater than normally result from careful use. If the Buyer discovers a defect or nonconformity, it must notify Pierce in writing within thirty (30) days after the date of discovery, but in any event prior to the expiration of the warranty period. THIS LIMITED WARRANTY MAY NOT BE ASSIGNED OR OTHERWISE TRANSFERRED BY THE BUYER TO ANY SUBSEQUENT USER OR PURCHASER OR TO ANY OTHER PERSON OR ENTITY.

Notwithstanding anything to the contrary herein, Pierce makes no warranty whatsoever as to:

(a) any integral parts, components, attachments or trade accessories of or to the product that are not manufactured by Pierce, including but not limited to engines, transmissions, drivelines, axles, water pumps and generators; with respect to all such parts, components, attachments and accessories, Pierce shall assign to Buyer the applicable warranties, if any, made by the respective manufacturers thereof;

(b) any vehicle, chassis, or component, part, attachment or accessory damaged by misuse, neglect, fire, exposure to severe environmental or chemical conditions, acidic environment, improper maintenance, accident, crash, or force majeure such as natural disaster, lightning, earthquake, windstorm, hail, flood, war or riot;

(c) any vehicle, chassis or component, part, attachment or accessory that has been repaired, altered or assembled in any way by any person or entity other than Pierce which, in the sole judgment of Pierce, adversely affects the performance, stability or purpose for which it was manufactured; or

(d) products or parts which may in the ordinary course wear out and have to be replaced during the warranty period, including, but not limited to, tires, fluids, gaskets and light bulbs. Pierce assumes no responsibility for the assembly of its parts or subassemblies into finishing products or vehicles unless the assembly is performed by Pierce.

The original purchaser may void this warranty in part or in its entirety if the product is repaired or replaced (a) without prior written approval of the Pierce Customer Service Department; or (b) at a facility which has not been approved by Pierce as to technical capability. Any repairs, modifications, alterations or aftermarket parts added after manufacture without the authorization of Pierce may void this warranty.

2. DISCLAIMERS OF WARRANTIES

THE WARRANTY SET FORTH IN PARAGRAPH 1 IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY PIERCE. PIERCE HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

3. BUYER'S EXCLUSIVE REMEDY

If the product fails to conform to the warranty set forth in paragraph 1 during the warranty period, and such nonconformity is not due to misuse, neglect, accident or improper maintenance, Buyer must notify Pierce within the time period specified in paragraph 1, and shall make the product available for inspection by Pierce or its designated agent. At the request of Pierce, any allegedly defective product shall be returned to Pierce by Buyer for examination and/or repair. Buyer shall be responsible for the cost of such transportation, and for risk of loss of or damage to the product during transportation. Within a reasonable time, Pierce shall repair or replace (at Pierce's option and expense) any nonconforming or defective parts. Repair or replacement shall be made only by a facility approved in advance in writing by Pierce. THIS REMEDY SHALL BE THE EXCLUSIVE AND SOLE REMEDY FOR ANY BREACH OF WARRANTY.

4. EXCLUSION OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

Notwithstanding anything to the contrary herein or in any agreement between Pierce and Buyer, IN NO EVENT SHALL PIERCE BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, INDIRECT, OR PUNITIVE DAMAGES WHATSOEVER, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORY OF LAW OR EQUITY, WITH RESPECT TO VEHICLES OR OTHER PRODUCTS SOLD BY PIERCE, OR THEIR OPERATION OR FAILURE TO OPERATE, OR ANY DEFECTS THEREIN, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATED THERETO, REGARDLESS OF WHETHER PIERCE HAS BEEN INFORMED OF THE POSSIBILITY OF ANY SUCH DAMAGES. Without limiting the generality of the foregoing, Pierce specifically disclaims any liability for property or personal injury damages, penalties, damages for lost profits or revenues, loss of vehicles or products or any associated equipment, cost of substitute vehicles or products, down-time, delay damages, any other types of economic loss, or for any claims by any third party for any such damages.

Note: Any Surety Bond, if a part of the sale of the vehicle as to which this limited warranty is provided, applies only to this Pierce Basic One Year Limited Warranty for such vehicle, and not to other warranties made by Pierce in a separate document (if any) or to the warranties (if any) made by any manufacturer (other than Pierce) of any part, component, attachment or accessory that is incorporated into or attached to the vehicle.

3/19/2021 WA0386

PACCAR ENGINE LIMITED WARRANTY

PACCAR MX Warranty

United States

THIS LIMITED WARRANTY ("LIMITED WARRANTY") LISTS THE RESPECTIVE RIGHTS AND RESPONSIBILITIES OF PIERCE MANUFACTURING INC.'S END USER CUSTOMER THAT FIRST PUTS THE PACCAR ENGINE INTO SERVICE ("YOU" or "FIRST PURCHASER"), PACCAR INC ("PACCAR"), AND THE SERVICING PACCAR ENGINE DISTRIBUTORS ("AUTHORIZED DISTRIBUTORS"). PLEASE READ THIS LIMITED WARRANTY CAREFULLY.

PACCAR warrants directly to You that the PACCAR MX engine and related kitted parts (collectively, the "Engine") will be free from defects in materials and factory workmanship ("Warrantable Failures") appearing under normal commercial use and service during the time, mileage or hour limitations set forth in the attached Warranty Schedule. **This Engine warranty extends only to You, and not any subsequent owner or user of the Engine.** The Emissions warranty is made to all owners of the Engine in the chain of distribution until the end of the Emissions warranty coverage period. Warranty coverage relating to the Emissions components is outlined in the Emissions Warranty section of the PACCAR MX Operator's Manual, the terms and conditions of which are incorporated herein by reference.

YOUR SOLE AND EXCLUSIVE REMEDY AGAINST PACCAR AND ITS SUBSIDIARIES AND AFFILIATES ARISING FROM YOUR PURCHASE AND USE OF THIS ENGINE IS LIMITED TO THE REPAIR OR REPLACEMENT OF WARRANTABLE FAILURES AT AUTHORIZED DISTRIBUTORS IN THE UNITED STATES AND CANADA AND IS SUBJECT TO PACCAR'S TIME, MILEAGE, AND HOUR LIMITATIONS LISTED IN THE ATTACHED WARRANTY SCHEDULES. The maximum time, mileage and hour limitations in the Warranty Schedules begin running on the Date of Delivery to the First Purchaser. **The accrued time, mileage, or hours is calculated when this Engine is brought into an Authorized Distributor for correction of Warrantable Failures.**

WARRANTY DISCLAIMER AND LIMITATIONS OF LIABILITY (ENGINE AND EMISSIONS)

This Limited Warranty is the sole warranty made by PACCAR and its Authorized Distributors to You relating to the Engine. Except for the above limited express warranty, PACCAR and its Authorized Distributors make no other warranties to You, express or implied. PACCAR AND ITS AUTHORIZED DISTRIBUTORS EXPRESSLY DISCLAIM ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

IT IS AGREED THAT PACCAR AND ITS AUTHORIZED DISTRIBUTORS SHALL NOT BE LIABLE TO YOU FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES INCLUDING, BUT NOT LIMITED TO: LOSS OF INCOME OR LOST PROFITS; ENGINE OR VEHICLE DOWNTIME; THIRD PARTY DAMAGE, INCLUDING DAMAGE OR LOSS TO OTHER ENGINES, VEHICLES OR PROPERTY, ATTACHMENTS, TRAILERS AND CARGO; LOSS OR DAMAGE TO PERSONAL CONTENTS; COMMUNICATION EXPENSES; LODGING AND/OR MEAL EXPENSES; FINES; APPLICABLE TAXES OR BUSINESS COSTS OR LOSSES; ATTORNEYS' FEES; AND ANY LIABILITY YOU MAY HAVE IN RESPECT TO ANY OTHER PERSON OR ENTITY.

This warranty does not apply to parts or accessories supplied by the vehicle manufacturer or third parties.

Failures of belts and hoses supplied by PACCAR are covered during the first year from the Date of Delivery of the Engine to the First Purchaser. PACCAR does not warrant antifreeze, lubricants, filters, filter elements, or any other part that is a maintenance or repair item. However, in its sole discretion, PACCAR may pay for lubricating oil, antifreeze, filter elements, belts, hoses, and other maintenance or repair items if the need for replacing such items is due to a Warrantable Failure of the Engine.

You are responsible for the safe operation and maintenance of the Engine and Emissions equipment as specified in the applicable Operator's Manuals. You are responsible for providing proof that all recommended inspections and maintenance have been performed. Before the expiration of the applicable warranty, You must notify an Authorized Distributor of any Warrantable Failures and make the Engine available for Engine repair by such Authorized Distributor. You are responsible for delivery of the Engine to the Authorized Distributor. Locations in the United States and Canada of Authorized Distributors may be found at WWW.PACCARPOWERTRAIN.COM.

PACCAR IS NOT RESPONSIBLE FOR WEAR AND TEAR OR WEAROUT OF COVERED PARTS, storage deterioration, and changes in adjustment resulting from your use of the Engine. Damage due to accident, misuse, abuse, neglect, negligence, improper or insufficient maintenance, or unauthorized modification is not warranted. This may include, but is not limited to: operation without adequate coolants, lubricants, or other fluids; over-fueling; over-speeding; lack of maintenance of the lubricating, cooling or air intake systems; improper storage, starting, warm-up, run-in or shutdown practices; and unauthorized modifications to the Engine. **PACCAR is not responsible for damage or loss resulting from Engine horsepower/torque upgrades.**

Parts used to repair a Warrantable Failure may be new parts, approved remanufactured parts, or repaired parts. PACCAR is not responsible for failures resulting from the use of parts not approved by PACCAR. A new or approved remanufactured part used to repair a Warrantable Failure assumes the identity of the part it has replaced and is entitled to the remaining warranty coverage, if any.

PACCAR IS NOT RESPONSIBLE FOR DAMAGE OR LOSSES CAUSED BY INCORRECT OIL, FUEL, DIESEL EXHAUST FLUID, COOLANT, OR ADDITIVES; WATER, DIRT OR OTHER CONTAMINANTS IN THE FUEL, OIL OR DIESEL EXHAUST FLUID; OPERATION WITHOUT ADEQUATE COOLANTS OR LUBRICANTS; OVER-FUELING; OVER-SPEEDING; IMPROPER STORAGE, STARTING, WARM-UP, RUN-IN OR SHUT-DOWN PRACTICES; OR UNAUTHORIZED MODIFICATIONS OF THE ENGINE. Failure of replacement parts used in repairs due to the above non-warrantable conditions is not warrantable.

If your vehicle is disabled by a Warrantable Failure to the Engine during the base warranty period, PACCAR is not responsible for towing expenses to transport the vehicle to the nearest Authorized Distributor. In lieu of the towing expense and at the sole discretion of PACCAR,

PACCAR will pay the reasonable costs of an authorized mechanic to travel to and from the location of the disabled Vehicle in order to perform the Engine repair.

PACCAR will pay for reasonable labor costs for Engine removal and reinstallation when necessary to repair a Warrantable Failure.

Warrantable Failures resulting in excessive oil consumption will be handled within the basic Engine coverage as stated in the attached Engine Schedule. Before a claim for excessive oil consumption, low power, or excessive fuel consumption will be considered for payment, You must submit adequate documentation to show that consumption exceeds PACCAR published standards

PACCAR reserves the right to inspect and download data from the Engine Electronic Control Module for purpose of failure analysis unless prohibited by applicable law.

TIME LIMIT ON COMMENCING LEGAL ACTION / OTHER TERMS

IT IS AGREED THAT YOU HAVE 12 MONTHS FROM THE ACCRUAL OF THE CAUSE OF ACTION TO COMMENCE ANY LEGAL ACTION ARISING FROM THE PURCHASE OR USE OF THE ENGINE, OR BE BARRED FOREVER.

To the extent any provision of this limited warranty is found to contravene the law of any jurisdiction, the remainder of the warranty shall not be affected thereby.

PACCAR ENGINE LIMITED WARRANTY SCHEDULE

PACCAR MX Warranty

United States

THIS ENGINE WARRANTY SCHEDULE APPLIES ONLY TO ORIGINAL FACTORY EQUIPMENT AND IS SUBJECT TO THE TERMS AND LIMITATIONS IN THE ATTACHED LIMITED WARRANTY. This Engine Warranty Schedule does not apply to the vehicle which is warranted separately. Pursuant to the terms of the attached Limited Warranty, PACCAR Inc ("PACCAR") will pay warranty claims for Warrantable Failures within the following maximum limits in time, mileage, or hours, **whichever shall occur first**. The Warrantable Failure must be brought to the attention of an Authorized Distributor within 30 days of discovery.

PACCAR MX Engine

Basic Engine -Twenty-four (24) months or 250,000 miles (or 400,000 km) or 6,250 hours - (all applications except fire apparatus)

Fire Apparatus Truck Applications Basic Engine - Sixty (60) months or 100,000 miles (or 160,000 km) or 6,250 hours

Major Engine Components - Sixty (60) months or 500,000 miles or 12,500 hours

Cylinder Block Casting
Main Bearing Bolts
Cylinder Head Casting
Cylinder Head Capscrews

Crankshaft
Camshaft
Cam Follower Assemblies
Connecting Rod Assemblies

Lube Pump Gear
Crankshaft Gear
Camshaft Gear
Camshaft Idler Gear

Flywheel Housing
Water Pump Housing
Thermostat Housing



BULLETIN



TO: All Dealer Service Representatives

From: Kevin Hanegraaf

DATE: January 4, 2010

RE: UPF Tank Warranty Policy – Truck in Accident

Service Topic #292

To keep the UPF tank warranty valid on trucks that have been involved in a vehicular accident, it is UPF's policy that the customer must remove the tank from the truck and send it back to one of UPF's facilities for inspection. In the event that this does not take place, the warranty will be considered null and void.

The customer must remove and send the tank back to UPF for inspection in order to maintain the original warranty coverage, at which time it will be:

- *Filled with water*
- *Visually inspected*
- *Ultraviolet spark tested on articulating test stand in the dark*
- *Recommendation for repairs if necessary provided by UPF*
- *Fully evaluated and repaired by UPF*

If your customer chooses to leave the tank on the truck and wants a technician to inspect and/or repair the tank in the field, then **the warranty is no longer in effect.** This direction is upheld by UPF because the technician cannot inspect the entire tank when it is still installed on the truck.

Note: This memo is intended to relay the information Pierce has received on UPF's tank warranty for trucks that are in a vehicular accident. In the event of an actual claim, we direct you to consult with UPF's service Manager Maura Watts (800-638-8265 x253)



Certification Document CD0008 Command Zone® D-Series Module Environmental Capability

Pierce Manufacturing certifies the environmental capability of the D-Series electronic modules used in the Pierce Command Zone® system.

Enclosure Capability

Enclosures used to house the electronics are selected from the very highest quality environmentally sealed Deutsch products using only genuine Deutsch sealed connectors. This matched enclosure and connector system is constructed to the following specifications:



- **Dielectric Withstanding Voltage:** Current leakage less than 2 milliamps at 1500 VAC.
- **Durability:** No electrical or mechanical defects after 100 cycles of engagement or disengagement.
- **Physical Shock:** No unlocking, unmating, or other unsatisfactory results after 50 g's in each of three mutually perpendicular planes.
- **Temperature:** Operative at temperatures from -55° C (-67° F) to +125° C (257° F) at rated current.
- **Fluid Resistance:** Connectors show no damage when exposed to most fluids used in industrial applications.
- **Insulation Resistance:** 1000 megohms minimum at 25° C (77° F).
- **Moisture Resistance:** Water does not penetrate seals when submerged in three feet of water. Tested to IP6K9K rating (comparable to NEMA 6 Submersible, Water Tight, Dust Tight, & Ice/Sleet Resistant - Indoors/Outdoors).
- **Vibration:** Maintains continuity and exhibits no mechanical or physical damage after vibration levels of 20 g's between limits of 10 to 2000 Hz.
- **Thermal Cycle:** No cracking, chipping or leaking after twenty cycles from -55° C (-67° F) to +125° C (257° F).

Electronics Capability

- **Shock and Vibration:** An apparatus equipped with D-Series modules completed a 10,000 mile accelerated durability test (RD1308) and all modules performed flawlessly. This test involved around-the-clock travel over resonance events, inverted chatter bumps, stagger bumps, and gravel including a once-per-shift drive through a 1-foot deep water basin.
- **Current Rating:** Field Effect Transistors used in the electronic circuits are rated up to 10 amps each. Size 20 contacts in conjunction with 16 gauge wiring provides a continuous duty rating of 10 amps per pin at 158° F (RD 1201).
- **Thermal Capability:** Functioning modules were tested in a constant 158° F ambient environment (RD 1273). Internal module temperature rose no more than 10° F and all modules continued to function properly.

Summary

Given the above capabilities, Pierce Command Zone® modules are certified for installation on exterior areas of the apparatus that might be subject to water spray, salt, dust, dirt, automotive fluids, elevated temperatures, and occasional complete submersion in water up to 3 ft.

Pierce Manufacturing, Inc.



James Roger Lackore, PE
June 5, 2008

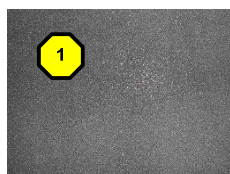


Certification Document CD0020

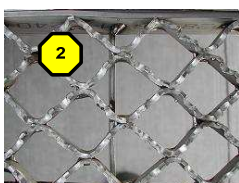
Stepping, Standing & Walking Areas

Slip Resistance Certification

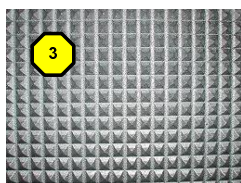
Pierce Manufacturing certifies that samples of the following interior and exterior stepping, standing and walking surfaces used in the manufacture of Pierce custom and commercial fire apparatus conform to the requirements of NFPA 1901, 2009 edition paragraphs 15.7.4.1 and 15.7.4.2 when tested using an English XL Variable Incidence Tribometer.



Anti-Slip Adhesive Tape



Bustin Firm-Grip



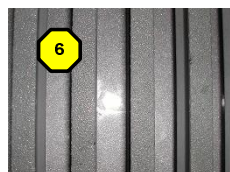
Cast Pyramids



Diamond Plate (Aluminum)



Diamond Plate Edge Punch



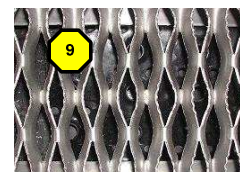
Duradek



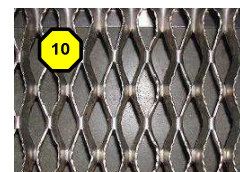
Eberhard Folding Step



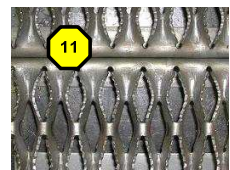
Freightliner Step



Grip Strut (Aluminum .080)



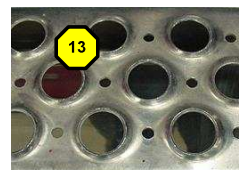
Grip Strut Aluminum 12 Ga



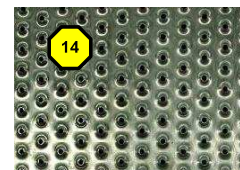
Grip Strut (Steel 12 Ga)



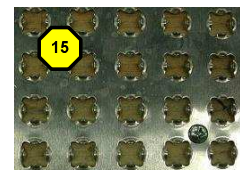
International Step



Kenworth Step



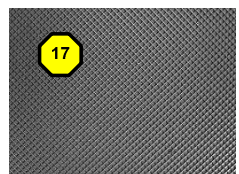
Morton Cass



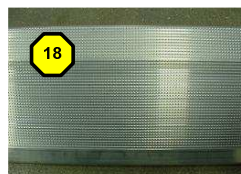
Octagonal Punch



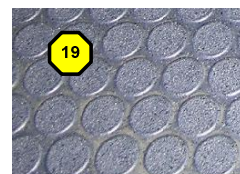
OverKrete Coating



Rubber Mat



Serration and Knurl



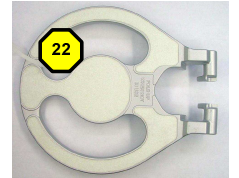
Loncoin II



Lonplate I



Thermach
(Stainless Coating)



Trident Luminescent
Folding Step



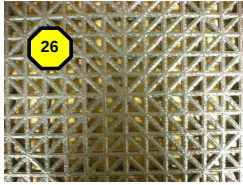
Line-X
(Spray-On Coating)



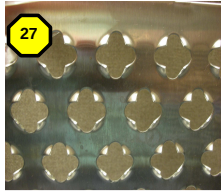
Rhino Lining
(Spray-On Coating)



Durabak SSV 170



Turtle Tile w/Grit Surface



Step Slot



Gortite Stepping Surface

VALIDATION TESTS:

RD1008	Surfaces	1 – 18
RD1153	Surfaces	19 – 20
RD1195	Surface	21
RD1219	Surface	22
RD1232	Surface	23
RD1227	Surface	24
RD1633	Surface	25
RD1942	Surface	26
RD1948	Surface	27
RD2027	Surface	28

Pierce Manufacturing, Inc.

A handwritten signature in blue ink, appearing to read 'James Lackore'.



James Roger Lackore, PE
December 1, 2008



Certification Document CD0049 NFPA 1901 UL Factory Inspection Process

Pierce Manufacturing, Inc. contracts with Underwriter's Laboratories to inspect Pierce apparatus for compliance to NFPA standards. Every NFPA 1901 apparatus manufactured in the Appleton facility is reviewed by a UL certified inspector after it is completed.

Each apparatus is subjected to a visual inspection of construction and installed components such as chassis, driving and crew compartments, body compartments, steps, warning lights, reflective trim, warning and instructional labels, etc. The inspection checklist, based on apparatus type, may have over 100 items to check.

Any feature that does not comply with the NFPA standard is identified. If the deviation is not indicated on the exceptions report, the UL inspector works with Pierce employees to correct the oversight before the apparatus is shipped.

This "Vehicle Inspection Program" process ensures that Pierce apparatus comply fully with NFPA standards unless noted on the exceptions report.



June 18, 2020

Pierce Manufacturing Inc.
Bob Good
2600 American Drive
Appleton, WI 54914

Delivered via e-mail to bgood@piercemfg.com

Subject: UL Annual Audit to Determine Continued Compliance with CAN/ULC S515-13, and/or NFPA 1901, for Coverage under the Vehicle Inspection Program (VIP)

Dear Mr. Good,

On December 2 – 4, 2019, UL conducted the annual Vehicle Inspection Program (VIP-S515 or VIP-1901) audit of automotive fire apparatus manufactured at Pierce Mfg. Inc., Appleton WI. The purpose and scope of the VIP audit was to review manufacturer processes, evaluate documentation, witness manufacturer tests, perform physical inspections on representative apparatus, and examine records of calibration. To help maintain coverage, one third of applicable chapters from the standards were reviewed to assess Pierce Manufacturing's compliance with applicable construction and performance requirements of CAN/ULC S515, *Standard for Automobile Fire Fighting Apparatus*, 2013 Edition and NFPA 1901, *Standard for Automotive Fire Apparatus*, 2016 Edition.

As a result of the audit, and evidence provided following the audit, it was determined that automotive fire apparatus manufactured at the Pierce Mfg. Inc., Appleton WI facilities are eligible to continue use of the UL VIP Certificates of Inspection and the VIP sticker. The issuance of the UL "VIP Certificate of Inspection" is the only means to identify apparatus as being compliant with the applicable construction and performance requirements of ULC S515-13 or NFPA 1901.

Included with this letter is the Certificate of Compliance stating that Pierce Manufacturing Inc. maintains coverage under the VIP programs.

Thank you for choosing UL for your automotive fire apparatus inspection and certification needs. Please contact the undersigned if you have any questions or wish to discuss this program.

Very truly yours,

A handwritten signature in black ink, appearing to read "Patrick Ginnaty-Moore".

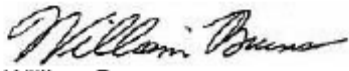
Patrick Ginnaty-Moore, ASNT Level III
Senior Project Engineer
Field Operations
P: 847.664.2366
M: 847. 226.5649
e-mail: patrick.t.ginnaty-moore@ul.com

UL LLC
333 Pfingsten Road, Northbrook, IL 60062-2096 USA
T: 847.272.8800 / F: 847.272.8129 / W: UL.com



**Certification Document CD0061
Pierce Poly Tank Fabrication Capability**

United Plastic Fabricating, Inc. acknowledges that Pierce facilities are capable and certified to install poly water tanks.

	UNITED PLASTIC FABRICATING, INC. 165 Flagship Drive, North Andover, MA 01845 Phone: 1-800-638-8265 • Fax: 1-800-966-4520 www.unitedplastic.com
14 May 2002	
Pierce Manufacturing, Inc. 2600 American Drive Appleton, WI 54913	
RE: Certification as Authorized Representative/Installer of UPF Poly-Tanks®	
This letter is the required Certification to acknowledge that Pierce Manufacturing, Inc. is an authorized representative and installer of the United Plastic Fabricating, Inc. product line including the UPF Poly-Tank®, the UPF PolySide™ wetside tank, the UPF Ellipse™ elliptical tank and the UPF Defender™ slip-on tanks. This certification of the adherence to the UPF recommended Installation Guidelines for handling, sub-frame fabrication, mounting, and testing are based on inspections and reviews of the Pierce processes. With more than 7,000 Poly-Tank® installations, Pierce Manufacturing's facilities in Appleton, WI; Ontario, CA; and Bradenton, FL are all authorized as UPF installation facilities. Should there be any questions regarding this Certification, please direct them to Michael Ashley, Vice President of Engineering or William Bruns, Vice President of Sales & Marketing at UPF. They may be reached at 1-800-638-8265.	
Respectfully Submitted,  William Bruns Vice President	



Certification Document CD0062 Pierce Welder Certification

Pierce Manufacturing Inc. (PMI) is certified to ISO Quality Standard 9001, which includes the oversight and quality assurance of all welding operations.

PMI also adheres to the National Fire Protection Association (NFPA) Standard 1901 which specifies the following welding codes:

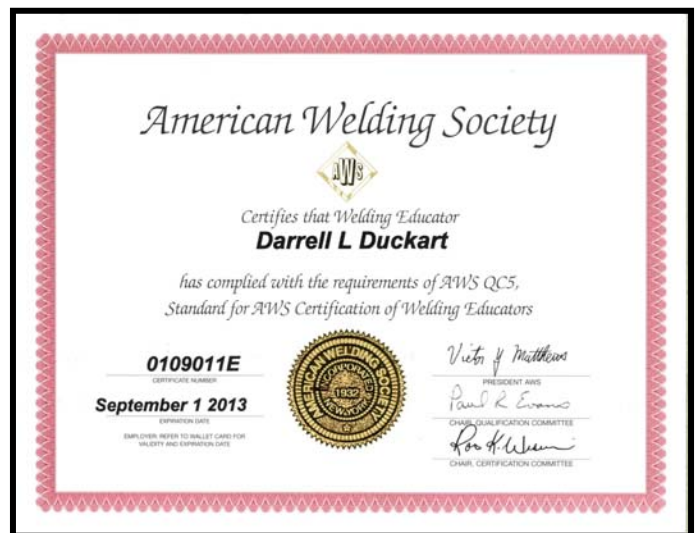
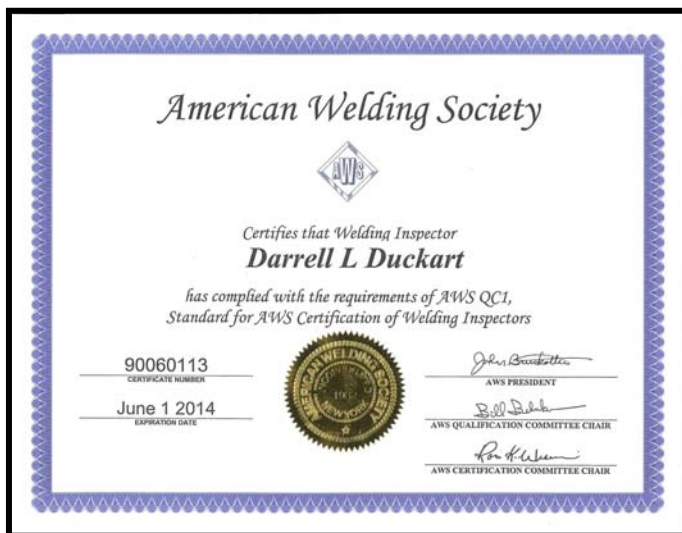
- AWS D1.1, Structural Welding Code – Steel
- AWS D1.2, Structural Welding Code – Aluminum
- AWS D1.3, Structural Welding Code - Sheet Steel.

PMI ensures that all welders working on fire apparatus are properly qualified and trained, and that they maintain their qualification. All welders are subject to:

- Pre-Employment Weld Skill Evaluation
- Initial Welder Training/Certification Program
- Welder Re-certification Schedule.

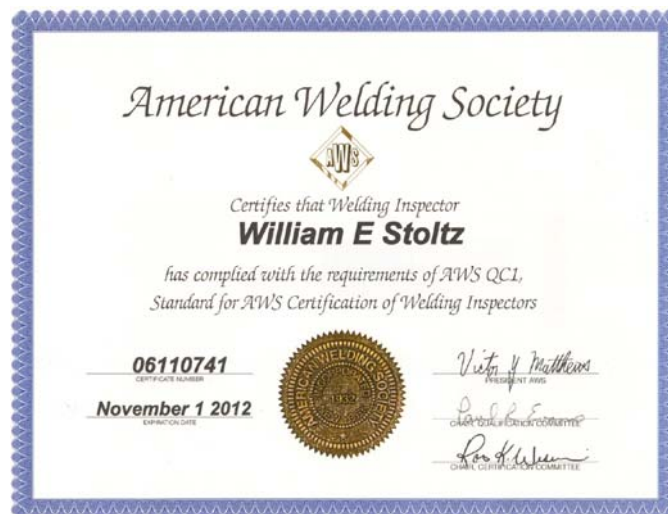
PMI's welder qualification program is administered by weld educators and inspectors certified by the American Welding Society.

The following individuals are located at the Appleton, Wisconsin facility.





The following individual is located at the Bradenton, Florida facility.





Certification Document CD0068 Electromagnetic Interference and Radio Frequency Interference Capability

Command Zone equipped Chassis

Pierce Manufacturing certifies the performance of the Pierce Quantum, Velocity, Impel, and Arrow XT multiplexed chassis meets the required emission and immunity criteria for Electro Magnetic and Radio Frequency Interference outlined in SAE J551/1.

Radiated Radio Frequency Emissions

Radio Frequency emissions were tested in accordance with *CISPR 12 Vehicles, boats, and internal combustion engine driven devices— Radio disturbance characteristics*. The test vehicle was operated with the ignition turned on and the engine running.

The antenna was positioned at a 3 meter test distance from the driver's side and then from the passenger's side of the DUT. The vehicle was compliant with the narrowband and broadband radiated emissions limits as outlined in the specification.



Immunity to Radiated Electromagnetic Fields

Radiated Electromagnetic Field emissions were tested in accordance with *SAE J551/16 Electromagnetic Immunity—Off-Vehicle Source (Reverberation Chamber Method)—Part 16—Immunity to Radiated Electromagnetic Fields*. The test vehicle was operated with the ignition turned on, the engine running, and the truck operating in the Block Right of Way mode.

The vehicle did not malfunction while being subjected to the radiated immunity requirements of this test. The vehicle was compliant within the acceptable criteria.



Electrostatic Discharge Capability

Electrostatic Discharge capability was tested in accordance with *SAE J551/15 Vehicle Electromagnetic Immunity—Electrostatic Discharge (ESD)*. The test vehicle was operated with the ignition turned on, the engine running, and the truck operating in the Block Right of Way mode.

The vehicle did not malfunction while being subjected to electrostatic discharge requirements of this test. The vehicle was compliant within the acceptable criteria.



VALIDATION TEST: RD1667

Pierce Manufacturing, Inc.

James Roger Lackore, PE
April 8, 2009



Certification Document CD0073 NFPA Lighting Requirements

Pierce Manufacturing, Inc. certifies that each apparatus lighting configuration is reviewed to ensure compliance with the requirements of NFPA 1901 and NFPA 1906 guidelines.



The highly customized nature of fire apparatus is particularly exemplified in the selection of lighting packages. Most fire departments have individual lighting desires based on performance and fleet commonality. Each Pierce apparatus lighting configuration is therefore reviewed to ensure that the lights selected will conform to the lighting supplier's guidelines for conformance to the NFPA standards. Pierce ensures that the lighting system is installed within the geometric parameters specified by the manufacturer of the lighting products. Optical source tests upon which these parameters are based are the responsibility of the lighting manufacturer.

Pierce Manufacturing, Inc.

A handwritten signature in blue ink, appearing to read "James R. Lackore".



James Roger Lackore, PE
July 20, 2009



Certification Document CD0075 Federal Signal Sirens

Pierce Manufacturing, Inc. has received certification that Federal Signal sirens are compliant with NFPA 1901 and NFPA 1906 guidelines.



FEDERAL SIGNAL
Safety and Security Systems
Advancing security and well-being.

2645 Federal Signal Drive
University Park, Illinois 60466-3195
708.534.3400
federalsignal.com

January 27, 2012

To Whom It May Concern:

Please let this correspondence serve as certification that the following siren and speaker combinations have been tested and have met the sound output requirements for SAEJ1849 as found in the NFPA 1901 2009 edition.

Siren	PA300	PA300	PA300	PA300	PA300	EQ2B	EQ2B	EQ2B
Speaker	BP100	BP200	TS100	AS124	ES100	(2) ES100	BP200	(2) BP100

Siren	Q2B	MS4000	MS4000	SSP3000	PA640	PA640	PA640	PA650
Speaker	N/A	TS100	ES100	ES100	TS100	ES100	AS124	TS100

Siren	80K w/480 control	80K w/480 control	UTMD	U90*	U90*	U90*	TM4
Speaker	BP100	TS100	AS124	BP100	TS100	ES100	TS100

* U90 amplifier is used in all U3000 and U5000 Omega Siren models.

This information has been provided to illustrate Federal Signal's commitment to the development and production of quality products. Thank you for your continued support of Federal Signal products and services. Should you need additional product information, please call 1-800-264-3578.

Sincerely,

Maria Hovanes
Marketing Manager
Federal Signal Corporation



FEDERAL SIGNAL

Laboratory Services

Acoustic Testing Lab

2645 Federal Signal Drive, University Park, IL 60466 – USA

Tel: 800-433-9132 • Fax: 800-343-9706

Certificate of Compliance

DESCRIPTION: U180K, 80K SERIES 100/200W

INDIVIDUALLY TESTED WITH FEDERAL SIGNAL
SPEAKERS:

AS124 (750501), BP100, ES100 AND BP200

DATE TESTED 10/8/2008 REPORT #AR091013A

Based on this testing, we certify that the above described products meet or exceed the following Standards:

SAE J1849 REV. APR2008 Emergency Vehicle Sirens
And CCR-Title 13, CHP Article 8. Sirens – CLASS A

TECHNICIAN: TODD STOOKSBURY

Federal Signal is ISO9001:2000 Certified.

Robert Hartke, Engineering Manager Fire/EMS



AMECA
Accredited Laboratory



FEDERAL SIGNAL

Laboratory Services

Acoustic Testing Lab

2645 Federal Signal Drive, University Park, IL 60466 – USA

Tel: 800-433-9132 • Fax: 800-343-9706

Certificate of Compliance

DESCRIPTION: UTM1 100/200W

INDIVIDUALLY TESTED WITH FEDERAL SIGNAL
SPEAKERS:

AS124 (750501), BP100, ES100 AND BP200

DATE TESTED 10/8/2008 REPORT #AR091013A

Based on this testing, we certify that the above described products meet or exceed the following Standards:

SAE J1849 REV. APR2008 Emergency Vehicle Sirens
And CCR-Title 13, CHP Article 8. Sirens – CLASS A

TECHNICIAN: TODD STOOKSBURY

Federal Signal is ISO9001:2000 Certified.

Robert Hartke, Engineering Manager Fire/EMS



AMECA
Accredited Laboratory



FEDERAL SIGNAL

Laboratory Services

Acoustic Testing Lab

2645 Federal Signal Drive, University Park, IL 60466 – USA

Tel: 800-433-9132 • Fax: 800-343-9706

Certificate of Compliance

DESCRIPTION: SSP3000 SMART SIREN PLATINUM, 100/200W

INDIVIDUALLY TESTED WITH FEDERAL SIGNAL
SPEAKERS:

AS124 (750501), BP100, ES100 AND TS100-N

DATE TESTED 10/8/2008 REPORT #AR091013A

Based on this testing, we certify that the above described products meet or exceed the following Standards:

SAE J1849 REV. APR2008 Emergency Vehicle Sirens
And CCR-Title 13, CHP Article 8. Sirens – CLASS A

TECHNICIAN: TODD STOOKSBURY

Federal Signal is ISO9001:2000 Certified.

Paul Gergets, Director of Engineering



AMECA
Accredited Laboratory



FEDERAL SIGNAL

Laboratory Services

Acoustic Testing Lab

2645 Federal Signal Drive, University Park, IL 60466 – USA

Tel: 800-433-9132 • Fax: 800-343-9706

Certificate of Compliance

DESCRIPTION: U280K, 80K SERIES 100/200W

INDIVIDUALLY TESTED WITH FEDERAL SIGNAL
SPEAKERS:

AS124 (750501), BP100, ES100 AND BP200

DATE TESTED 10/8/2008 REPORT #AR091013A

Based on this testing, we certify that the above described products meet or exceed the following Standards:

SAE J1849 REV. APR2008 Emergency Vehicle Sirens
And CCR-Title 13, CHP Article 8. Sirens – CLASS A

TECHNICIAN: TODD STOOKSBURY

Federal Signal is ISO9001:2000 Certified.

Robert Hartke, Engineering Manager Fire/EMS



AMECA
Accredited Laboratory



Certification Document CD0076 Whelen Sirens

Pierce Manufacturing, Inc. has received certification that Whelen sirens are compliant with NFPA 1901 and NFPA 1906 guidelines.

WHELEN® ENGINEERING COMPANY, INC. Technical Research Testing Laboratory

51 Winthrop Rd., Chester, CT 06412
Phone: 860-526-9504
Fax: 860-526-4078

Certificate of Compliance

This notice verifies that the items below have been tested by an AMECA accredited laboratory and have been found to be in compliance with the jurisdictional standard(s) listed below where applicable.

295SL100 Siren Amplifier
SA315P Siren Speaker
SD-210RX Siren Driver

Meets acoustical compliance standard(s) identical to:

SAE JA849 APR2008

Location of Anechoic Chamber: 51 Winthrop Rd.
Chester, CT 06412

Date Test Conducted: January 27, 2010

A handwritten signature in black ink, appearing to read "D. S. S.", is positioned above the technician's title.

Acoustic Laboratory Technician



AMECA
Accredited
Laboratory

WHELEN[®]
ENGINEERING COMPANY, INC.
Technical Research Testing Laboratory

51 Winthrop Rd., Chester, CT 06412
Phone: 860-526-9504
Fax: 860-526-4078

Certificate of Compliance

This notice verifies that the items below have been tested by an AMECA accredited laboratory and have been found to be in compliance with the jurisdictional standard(s) listed below where applicable.

295 HFS Series Siren Amplifier
SA315P Siren Speaker
SD-210RX Siren Driver

Meets acoustical compliance standard(s) identical to:

SAE J1849 JUL2002

Location of Anechoic Chamber: 51 Winthrop Rd.
Chester, CT 06412

Date Test Conducted: May 17, 2007



Acoustic Laboratory Technician



AMECA
Accredited
Laboratory

**WHELEN ENGINEERING ACOUSTIC LABORATORY
TEST REPORT**

Test Report No.: S-010508A

Test Report Date: 1-5-10

ELECTRONIC SIREN-SPEAKER SYSTEM

Manufacturer: Whelen Engineering Co.
51 Winthrop Rd.
Chester, CT 06412-0684
(860) 526-9504

Model: 295HFS2X
SA122FMP
SD-210RX (100Watt Driver)

Serial number: 0032

Test Conducted: SAE J1849

Test Conducted by: Bill Stuchell
(860) 526-9504

Location of Anechoic Chamber: 51 Winthrop Rd.
Chester, CT 06412-0684

Date Test Conducted: January 5, 2010

Results: The system meets all acoustical
requirements of SAE J1849.



AMECA CERTIFIED TEST LABORATORY

**WHELEN ENGINEERING ACOUSTIC LABORATORY
TEST REPORT**

Test Report No.: S-010510A

Test Report Date: 1-5-10

ELECTRONIC SIREN-SPEAKER SYSTEM

Manufacturer: Whelen Engineering Co.
51 Winthrop Rd.
Chester, CT 06412-0684
(860) 526-9504

Model: 295SLSA1
SA122FMP
SD-210RX

Serial number: CO764846

Test Conducted: SAE J1849

Test Conducted by: Bill Stuchell
(860) 526-9504

Location of Anechoic Chamber: 51 Winthrop Rd.
Chester, CT 06412-0684

Date Test Conducted: January 5, 2010

Results: The system meets all acoustical
requirements of SAE J1849.



AMECA CERTIFIED TEST LABORATORY

**WHELEN ENGINEERING ACOUSTIC LABORATORY
TEST REPORT**

Test Report No.: S-030211A

Test Report Date: 1-5-10

ELECTRONIC SIREN-SPEAKER SYSTEM

Manufacturer: Whelen Engineering Co.
51 Winthrop Rd.
Chester, CT 06412-0684
(860) 526-9504

Model: 295SLSA1
SA314P
SD-210RX

Serial number: CO764846

Test Conducted: SAE J1849

Test Conducted by: Bill Stuchell
(860) 526-9504

Location of Anechoic Chamber: 51 Winthrop Rd.
Chester, CT 06412-0684

Date Test Conducted: January 5, 2010

Results: The system meets all acoustical
requirements of SAE J1849.



AMECA CERTIFIED TEST LABORATORY

**WHELEN ENGINEERING ACOUSTIC LABORATORY
TEST REPORT**

Test Report No.: S-030906

Test Report Date: 3/9/06

ELECTRONIC SIREN-SPEAKER SYSTEM

Manufacturer: Whelen Engineering Co.
Route 145, Winthrop Rd.
Chester, CT 06412-0684
(860) 526-9504

Model: 295HFSA1
SA314P
SD-210RX

Serial number: PKL24808

Test Conducted: SAE J1849

Test Conducted by: Bill Stuchell
(860) 526-9504

Location of Anechoic Chamber: Route 145, Winthrop Rd.
Chester, CT 06412-0684

Date Test Conducted: March 9, 2006

Results: The system meets all acoustical
requirements of SAE J1849.



AMECA CERTIFIED TEST LABORATORY

**WHELEN ENGINEERING ACOUSTIC LABORATORY
TEST REPORT**

Test Report No.: S-090507

Test Report Date: 9-5-07

ELECTRONIC SIREN-SPEAKER SYSTEM

Manufacturer: Whelen Engineering Co.
Route 145, Winthrop Rd.
Chester, CT 06412-0684
(860) 526-9504

Model: 295SLSA1 Amplifier
SA315P Speaker
SD-210RX 100 Watt Driver

Serial number: 0026

Test Conducted: SAE J1849

Test Conducted by: Bill Stuchell
(860) 526-9504

Location of Anechoic Chamber: Route 145, Winthrop Rd.
Chester, CT 06412-0684

Date Test Conducted: September 5, 2007

Results: The system meets all acoustical
requirements of SAE J1849.



AMECA CERTIFIED TEST LABORATORY

**WHELEN ENGINEERING ACOUSTIC LABORATORY
TEST REPORT**

Test Report No.: S-101907C

Test Report Date: 10-19-07

ELECTRONIC SIREN-SPEAKER SYSTEM

Manufacturer: Whelen Engineering Co.
51 Winthrop Rd.
Chester, CT 06412-0684
(860) 526-9504

Model: HHS2200 Siren
SA315P
SD-210RX

Serial number: C0094346

Test Conducted: SAE J1849

Test Conducted by: Bill Stuchell
(860) 526-9504

Location of Anechoic Chamber: 51 Winthrop Rd.
Chester, CT 06412-0684

Date Test Conducted: October 19, 2007

Results: The system meets all acoustical
requirements of SAE J1849.



AMECA CERTIFIED TEST LABORATORY

**WHELEN ENGINEERING ACOUSTIC LABORATORY
TEST REPORT**

Test Report No.: S-102509

Test Report Date: 10-5-09

ELECTRONIC SIREN-SPEAKER SYSTEM

Manufacturer: Whelen Engineering Co.
51 Winthrop Rd.
Chester, CT 06412-0684
(860) 526-9504

Model: 295HFSA7
295HFSA8
SA122FMP
SD-210RX

Serial number: N015816

Test Conducted: SAE J1849

Test Conducted by: Bill Stuchell
(860) 526-9504

Location of Anechoic Chamber: 51 Winthrop Rd.
Chester, CT 06412-0684

Date Test Conducted: October 5, 2009

Results: The system meets all acoustical
requirements of SAE J1849.



AMECA CERTIFIED TEST LABORATORY

WHELEN[®]
ENGINEERING COMPANY, INC.
Technical Research Testing Laboratory

51 Winthrop Rd., Chester, CT 06412
Phone: 860-526-9504
Fax: 860-526-4078

Certificate of Compliance

This notice verifies that the items below have been tested by an AMECA accredited laboratory and have been found to be in compliance with the jurisdictional standard(s) listed below where applicable.

295HFSC9 Siren Amplifier
SA314P Siren Speaker
SD-210RX Siren Driver

Meets acoustical compliance standard(s) identical to:

SAE J1849 APR2008

Location of Anechoic Chamber: 51 Winthrop Rd.
Chester, CT 06412

Date Test Conducted: October 21, 2011



Acoustic Laboratory Technician



AMECA
Accredited
Laboratory

WHELEN ENGINEERING ACOUSTIC LABORATORY TEST REPORT

Test Report No.: S-010510

Test Report Date: 1-5-10

ELECTRONIC SIREN-SPEAKER SYSTEM

Manufacturer: Whelen Engineering Co.
51 Winthrop Rd.
Chester, CT 06412-0684
(860) 526-9504

Model: 295SLSA7
SD-210RX

Serial number: CO764846

Test Conducted: SAE J1849

Test Conducted by: Bill Stuchell
(860) 526-9504

Location of Anechoic Chamber: 51 Winthrop Rd.
Chester, CT 06412-0684

Date Test Conducted: January 5, 2010

Results: The system meets all acoustical
requirements of SAE J1849.



AMECA CERTIFIED TEST LABORATORY

WHELEN[®]
ENGINEERING COMPANY, INC.
Technical Research Testing Laboratory

51 Winthrop Rd., Chester, CT 06412
Phone: 860-526-9504
Fax: 860-526-4078

Certificate of Compliance

This notice verifies that the items below have been tested by an AMECA accredited laboratory and have been found to be in compliance with the jurisdictional standard(s) listed below where applicable.

**CenCom Sapphire Siren Amplifier
SA315P Siren Speaker
SD-210RX Siren Driver**

Meets acoustical compliance standard(s) identical to:

SAE J1849 APR2008

**Location of Anechoic Chamber: 51 Winthrop Rd.
Chester, CT 06412**

Date Test Conducted: February 22, 2012



Acoustic Laboratory Technician



**AMECA
Accredited
Laboratory**



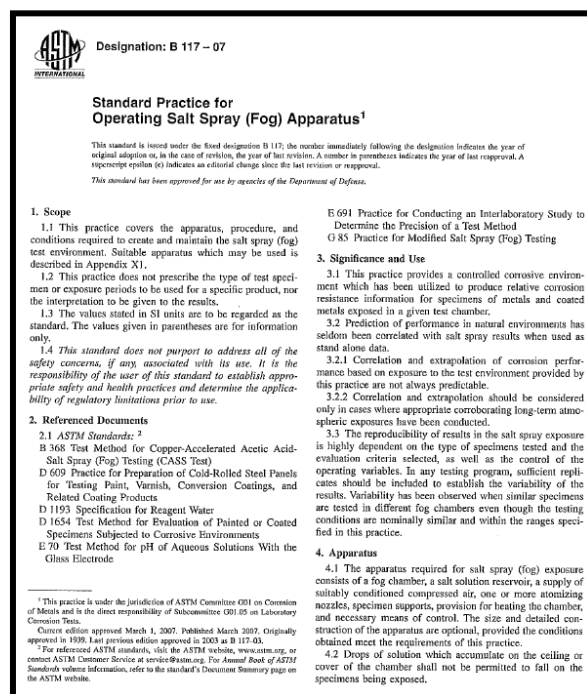
Certification Document CD0081 Cab Material Corrosion Resistance

Pierce Manufacturing certifies the Aluminum material used in the construction of Pierce Custom Cabs is resistant to corrosion.

Testing Method

Resistance to corrosion is one of the characteristics used to determine the most suitable material for construction of cab structures. Other characteristics include weight, strength, formability, weldability, and the ability to extrude shapes from billet. Pierce has performed extensive salt spray testing to compare alternative materials and aid in the material selection process.

The most common test to compare material corrosion resistance performance is ASTM B117. This industry standard method provides a controlled corrosive environment which has been utilized to produce relative corrosion resistance information for specimens of metals and coated metals exposed in a given test chamber.

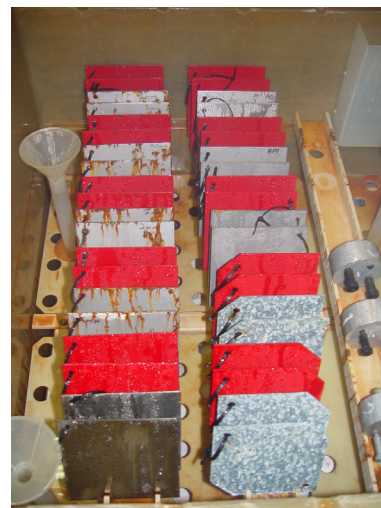


Materials Considered.

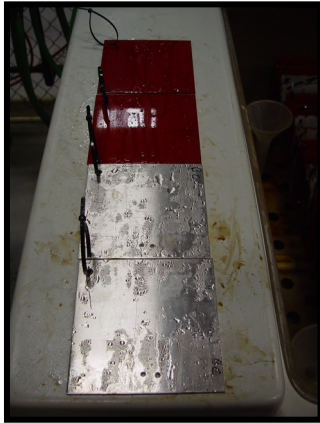
There are four practical materials that can or could be used in the manufacture of fire apparatus cabs or bodies:

- | | |
|------------------------|---------------------------|
| • Aluminum | Apparatus Cabs and Bodies |
| • 304L Stainless Steel | Apparatus Bodies |
| • Galvaneal | Apparatus Bodies |
| • Cromgard | Seagrave "SS" Cabs |

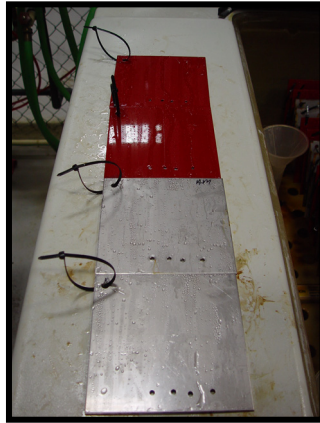
To compare the corrosion resistance performance of these materials, Pierce prepared four 6 x 6 inch samples of each material, two painted and two raw. Samples were subjected to salt spray testing in an ASTM B117 Salt Spray (Fog) Apparatus.



After 50 hours of Salt Spray.....



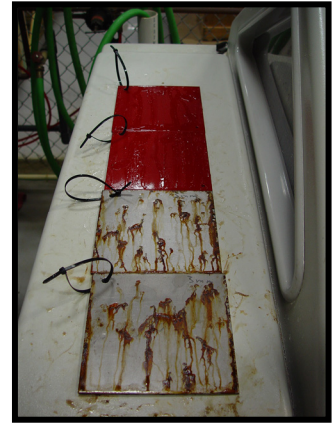
Aluminum



304L SS



Galvaneal

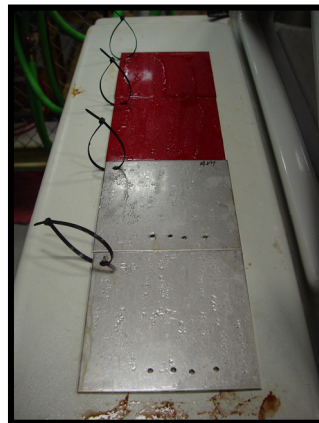


Cromgard

After 400 hours of Salt Spray.....



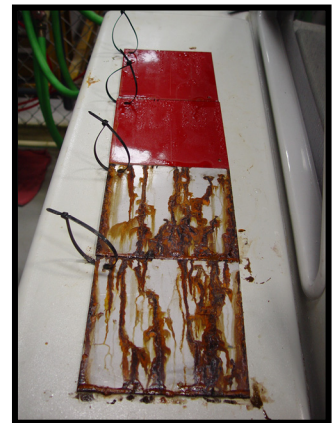
Aluminum



304L SS



Galvaneal



Cromgard

Summary

The aluminum material currently used in Pierce custom cab and body designs provided better resistance to corrosion than either galvanized steel or Cromgard.

VALIDATION TEST: RD1726

Pierce Manufacturing, Inc.

A handwritten signature in blue ink, reading "James R. Lackore".



James Roger Lackore, PE
August 12, 2009



Certification Document CD0082 Pierce Engineering Capabilities

Pierce maintains an extensive engineering department responsible for designing custom apparatus. As of the date of this document, Pierce Appleton engineering personnel hold the following credentials:

Mechanical

Associates Degree in Mechanical Design or Similar
Bachelors Degree in Mechanical Engineering or Similar
Masters Degree in Mechanical Engineering or Similar

Personnel

96
32
2

Electrical

Associates Degree in Electrical Design or Similar
Bachelors Degree in Electrical Engineering or Similar
Masters Degree in Electrical Engineering or Similar

Personnel

12
7
1

Computer Science

Bachelors Degree in Computer Science

Personnel

1

Professional Engineers

Wisconsin Registration
Florida Registration

Personnel

1
1

Pierce Manufacturing, Inc.

A handwritten signature in black ink, appearing to read "David Archer".

David Archer – Vice President Engineering
November 12, 2013



Certification Document CD0083 Water Tank Capacity

Pierce Manufacturing, Inc. has received certification that UPF Tanks are certified to meet the nominal tank capacity.



UNITED PLASTIC
FABRICATING, INC.

WILLIAM BRUNS
Vice President Sales & Marketing
(978) 989-0264

25 August 2009

To Whom It May Concern:

United Plastic Fabricating, Inc. (UPF) certifies that each tank manufactured for Pierce Manufacturing, Inc. meets, at a minimum, the usable liquid capacity indicated by the nominal tank capacity ordered. For the purposes of NFPA certification be it understood that while each tank is provided with an exact usable liquid capacity certification at the time the tank is delivered, the capacity will never be less than the nominal capacity. Pierce can be assured that a UPF tank will always be manufactured to provide slightly greater capacity than nominal.

Respectfully Submitted,

A handwritten signature in cursive script that reads "William Bruns".

William Bruns
Vice President
Sales & Marketing

United Plastic Fabricating, Inc. • 165 Flagship Drive, No. Andover, Massachusetts 01845
fax: (978) 691-8564
e-mail: bbruns@unitedplastic.com
web: www.unitedplastic.com



Certification Document CD0084 Pierce Engineering Methodology

Every Pierce custom fire apparatus undergoes an extensive configuration and custom design process. Engineers and designers from Pierce's design staff review the specification, creating a master package of bills of material and engineering drawings before the manufacturing process is begun.

Part drawings are created using computer-aided-design (CAD) software to ensure dimensional accuracy.

Designs are created using best industry practices including Federal Motor Vehicle Safety Standards (FMVSS), National Fire Protection Association (NFPA) guidelines, and Society of Automotive Engineers (SAE) recommended practices.

Design reviews on each truck include:

- Weight Distribution
- Axle Capacity
- Driveline Analysis
- Hose Capacity
- Electrical Amperage Draw
- Lighting and Conspicuity

Pierce Manufacturing, Inc.

The block contains a handwritten signature in blue ink, which appears to read "James R. Lackore". To the right of the signature is a circular professional engineer seal for the State of Wisconsin. The seal contains the text "WISCONSIN" at the top, "JAMES R. LACKORE" in the center, "E-26228" below the name, "APPLETON, WI" below the license number, and "PROFESSIONAL ENGINEER" around the bottom edge.

James Roger Lackore, PE
October 28, 2009



Certification Document CD0086 Custom Chassis Exhaust Temperature Mitigation

Pierce Manufacturing certifies that Pierce Custom Chassis equipped with a Pierce exhaust temperature mitigation device will maintain exhaust temperatures at or below the value specified by NFPA 1901 and NFPA 1906.

NFPA specifies that the exhaust gas exiting the tail pipe during regeneration shall not exceed 851° F.

12.2.6.7.6* Engine exhaust gas temperature shall not exceed 851°F (455°C) when measured at the exit of the exhaust pipe during normal DPF regeneration.

Physical testing was performed on the highest horsepower engine offering to verify that the exhaust gas temperature does not exceed this value. Temperatures were measured before and after the mitigation device.

VALIDATION TEST: RD1856

Pierce Manufacturing, Inc.

A handwritten signature in blue ink, appearing to read "James R. Lackore".



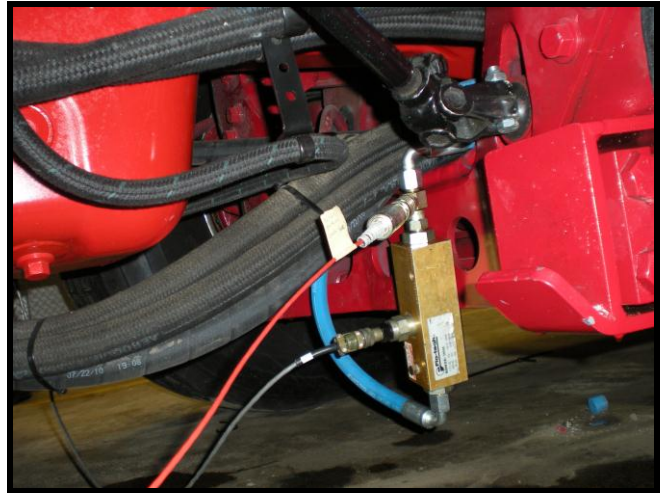
James Roger Lackore, PE
June 22, 2010





Certification Document CD0098 Power Steering System

Pierce Manufacturing, Inc. certifies that the power steering system as installed in our custom chassis meets the requirements of the component supplier, the NFPA 1901 and NFPA 1906 guidelines as applicable, and Pierce internal design standards.



VALIDATION TEST: RD1987, RD2055
RD2056, RD2057, RD2058, RD2059

Pierce Manufacturing, Inc.

A handwritten signature in black ink, appearing to read "David W. Archer".

David W. Archer
Director of Engineering
June 03, 2011



Certification Document CD0130 Saber® FR - Enforcer™ Cab Integrity Certification

Pierce Manufacturing certifies the integrity of the Saber® FR – Enforcer™ cab relative to occupant protection.

A specimen representing the substantial structural configuration of the Saber® FR – Enforcer™ cab models has been successfully tested in accordance with the following standards.

- SAE J2422 Cab Roof Strength Evaluation – Quasi-Static Loading Heavy Trucks.
- European Occupant Protection Standard ECE Regulation No. 29.
- SAE J2420 COE Frontal Strength Evaluation – Dynamic Loading Heavy Trucks.

Side Impact: The test cab was subjected to dynamic preload where a 14,253 lb moving barrier was slammed into the side of the cab at 5.25 mph, striking with an impact of 13,000 ft-lbs of energy. This test is not required to meet the ECE 29 standard, but is part of the SAE J2422 test procedure and more closely represents the forces a cab will see in a roll-over incident.



Frontal Impact: The test cab was struck by the 14,253 lb moving barrier at a speed sufficient to impart the required 32,549 ft-lbs of energy.



Roof Crush: This same test cab was then subjected to a roof crush force of 24,453 lbs. This value meets the ECE 29 criteria, which must be equivalent to the front axle rating up to a maximum of 10 metric tons.



Pass-Fail criteria of the SAE tests and the ECE 29 test is a measure of whether the “survival space” inside the cab is compromised, all doors remain shut, and the cab remained attached to the chassis frame in at least one location. The Pierce cab met all of the Performance Criteria requirements on all 3 integrity tests.

Witnessed and Certified by:

Pierce Manufacturing, Inc.

A handwritten signature in black ink, appearing to read "David Archer".

David Archer
Vice President of Engineering



Certification Document CD0132
Saber®FR – Enforcer™
Windshield Wiper System

Pierce Manufacturing certifies the integrity of the Saber® FR –Enforcer™ Windshield Wiper System.

Specimens representing the configuration of the Saber® FR –Enforcer™ windshield wipers have been successfully tested to meet the following objectives:

OBJECTIVES:

- Complete 3,000,000 cycles of windshield wiper operation per SAE J198 § 6.2
- Inspect wiper motor, pivots, linkages, and mounts frequently to validate cumulative wiper system integrity.

CONCLUSIONS:

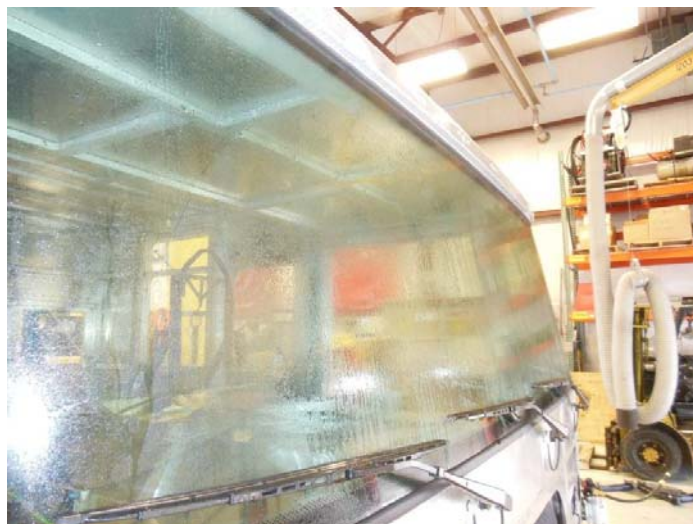
- The wiper linkage, pivots, and mounts successfully completed the 3,000,000 cycles.

VALIDATION TEST: RD2462

Pierce Manufacturing, Inc.

A handwritten signature in black ink, appearing to read "David Archer".

David Archer
Vice President of Engineering





Certification Document CD0134

Saber® FR – Enforcer™ Seats and Seat Belts

Pierce Manufacturing certifies the conformance of the Saber® FR – Enforcer™ cab seats and seat belts to Federal Motor Vehicle Safety Standards. Representative Saber® FR – Enforcer™ Seat and Seat Belt designs have been tested successfully in accordance with FMVSS 207.

Physical testing was performed to qualify passenger seats to meet Federal Motor Vehicle Safety Standards (FMVSS) 207 and 210. This requires that a minimum of 3,000 lbf be applied to both the lap and shoulder belts via appropriate body blocks. A third force of twenty times the mass of the seat must be applied at the center-of-gravity (CG) of the seat. All three forces are applied at the same time, reached within thirty seconds of the start of the test, and be held for a minimum of ten seconds.

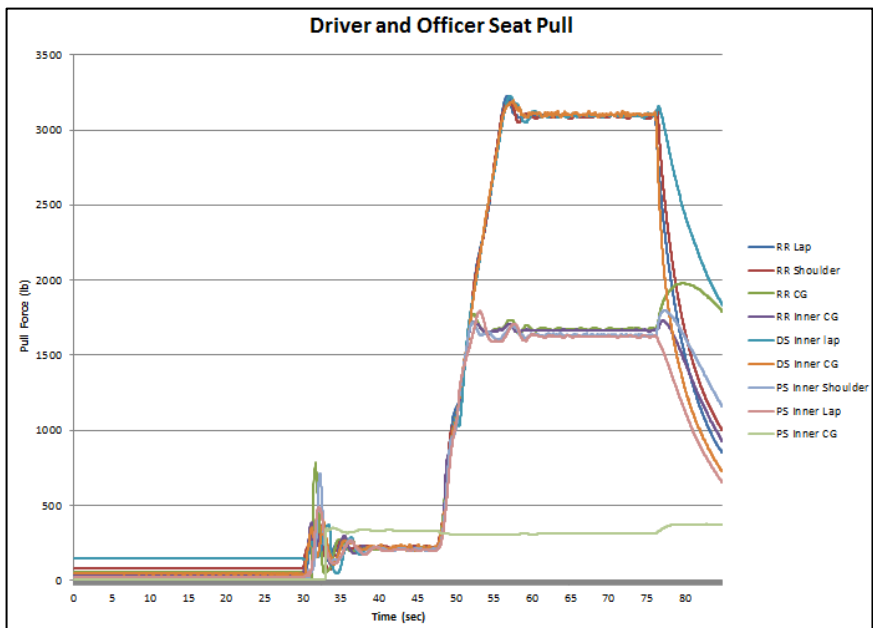
A force equal to twenty times the mass of the seat was applied to each seat in the direction opposite to the combination pull. A moment of 275 lb-ft was applied to the seat with reference to the H-point.

This testing ensures that the seat mounting and seat belt anchors are adequate to retain the seats and occupants in a crash. The Federal requirements are based on the high deceleration rates of passenger vehicles, so the design requirements are significantly more conservative considering the slower crash speeds of heavy trucks.

VALIDATION TESTS: RD2397

Pierce Manufacturing, Inc.

David Archer
Vice President of Engineering



PIERCE MANUFACTURING INC.®

AN OSHKOSH CORPORATION® COMPANY



Certification Document CD0137 **Saber®FR – Enforcer™** **Cab Doors**

Pierce Manufacturing certifies the integrity of the Saber®FR – Enforcer™ cab doors.

Specimens representing the substantial structural configuration of the Saber®FR – Enforcer™ cab front and crew doors have been successfully tested to meet the following objectives:

OBJECTIVES:

- Survive a 200,000-cycle door slam test with a slam acceleration up to 20 g's on one representative
- Validate the assembly concept of the main structure of the door by evaluating the durability of the bonding technique.
- Evaluate components, structure, and mounting of the door during and the end of the test for fatigue and failure to ensure durability.
- Verify that the door seals function properly at the end of the test.
- Evaluate the new extrusions and castings of the cab doorframe during and at the end of the test for fatigue, failure, and deformation of seal flanges.
- Evaluate various mounting options for the electronic control module for durability during portions of the slam test.

CONCLUSIONS:

- The door structure and doorframe successfully completed a 200,000-cycle door slam test with a door slam acceleration of 20 g's.

VALIDATION TEST: RD2425

Pierce Manufacturing, Inc.

David Archer
November 18, 2014





Certification Document CD0156

Statement of Compliance to NFPA 1901-2016

Vehicle Stability

Pierce fire apparatus comply with NFPA 1901 Section 4.13 Vehicle Stability using the tilt table method. As prescribed by the standard, each apparatus is compared to a substantially similar apparatus that has been loaded as required and tested on a tilt table per the SAE J2180 test procedure. If the apparatus configuration was not expected to meet the minimum tilt table criteria, then it will be equipped with the Electronic Stability Control option. A listing of all tested apparatus is maintained by the Research and Development lab and is available for inspection at the Appleton factory.



4.13 Vehicle Stability.

4.13.1* Rollover Stability. The apparatus shall meet the criteria defined in 4.13.1.1, or it shall be equipped with a stability control system in accordance with 4.13.1.2.

4.13.1.1 The apparatus shall meet the criteria defined in either of the following:

- (1)*The apparatus shall remain stable to 26.5 degrees in both directions when tested on a tilt table in accordance with SAE J2180, *A Tilt Table Procedure for Measuring the Static Rollover Threshold for Heavy Trucks*.
- (2) The calculated or measured center of gravity (CG) shall be no higher than 80 percent of the rear axle track width.

4.13.1.1.1 Compliance shall be certified by testing, calculating, or measuring the apparatus or by comparing the apparatus to a compliant, substantially similar example apparatus, and the certification shall be delivered with the fire apparatus.

4.13.1.1.2 The example apparatus shall be considered substantially similar if it includes a chassis with the same or higher CG height, the same or narrower rear axle track width, the same or greater water tank size and CG height, the same type of front and rear suspension, and the same type and size of aerial device.

4.13.1.1.3 For purposes of 4.13.1.1, the apparatus shall be loaded with fuel, fire-fighting agents, hose, ladders, a weight of 250 lb in each seating position, and weight equivalent to the miscellaneous equipment allowance as defined in Table 12.1.2.

4.13.1.1.3.1 If the apparatus is designed to meet a specified higher equipment loading or larger hose bed capacity or to carry additional ground ladders, these greater loads shall be included in the testing, calculating, or measuring.

4.13.1.1.3.2 The weight added to the fire apparatus for the purpose of test, calculation, or measurement shall be distributed to approximate typical in-service use of the fire apparatus while not exceeding the manufacturer's published individual compartment weight ratings.

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.

VALIDATION TEST: Multiple Tests

Pierce Manufacturing, Inc.

David W. Archer
Vice President of Engineering
June 1, 2017

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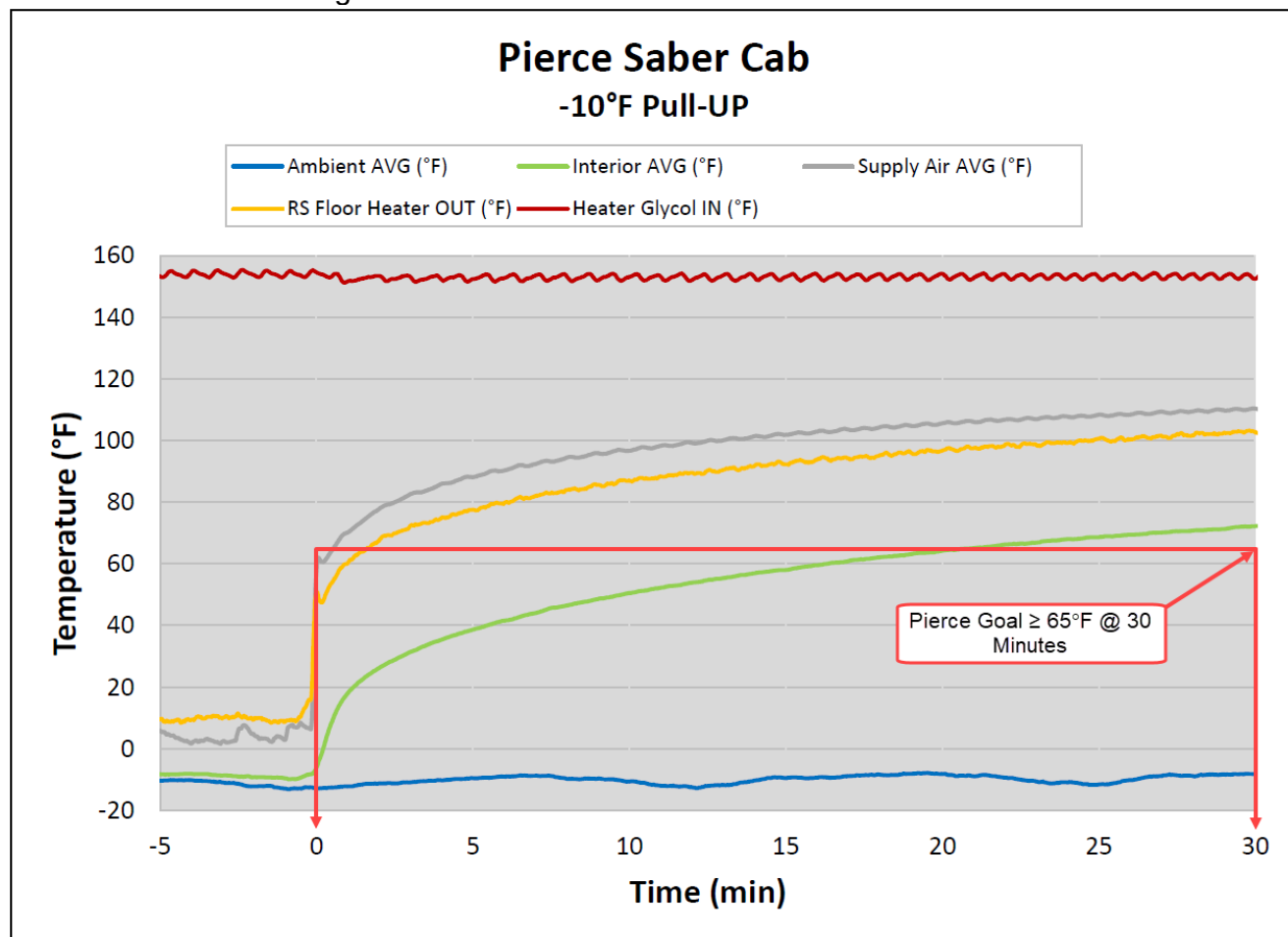
Certification Document CD0165

Saber® FR – Enforcer™ Cab Heater

Pierce Manufacturing certifies the performance of the Saber® FR – Enforcer™ cab heat systems.

The Saber®FR - Enforcer™ Heater System was tested successfully in an environmental chamber.

Heater testing was performed using the coolant supply procedures from SAE J381. The average cab temperature increased 82.3° F from -10° F to 72.3° F within the prescribed 30 minutes utilizing the right side under seat auxiliary heater. The cab was contained in a cold chamber at -10° F during the duration of the test.



VALIDATION TEST: TR#19-0047 R00

Pierce Manufacturing, Inc.

A handwritten signature in black ink, appearing to read "David Archer", written in a cursive style.

David Archer
Vice President of Engineering

PIERCE MANUFACTURING INC.®

AN OSHKOSH CORPORATION® COMPANY



Certification Document CD0167

Saber® FR - Enforcer™

Air Conditioning & Defrost

Pierce Manufacturing certifies the performance of the Saber®FR - Enforcer™ cab air conditioning and defrost system.

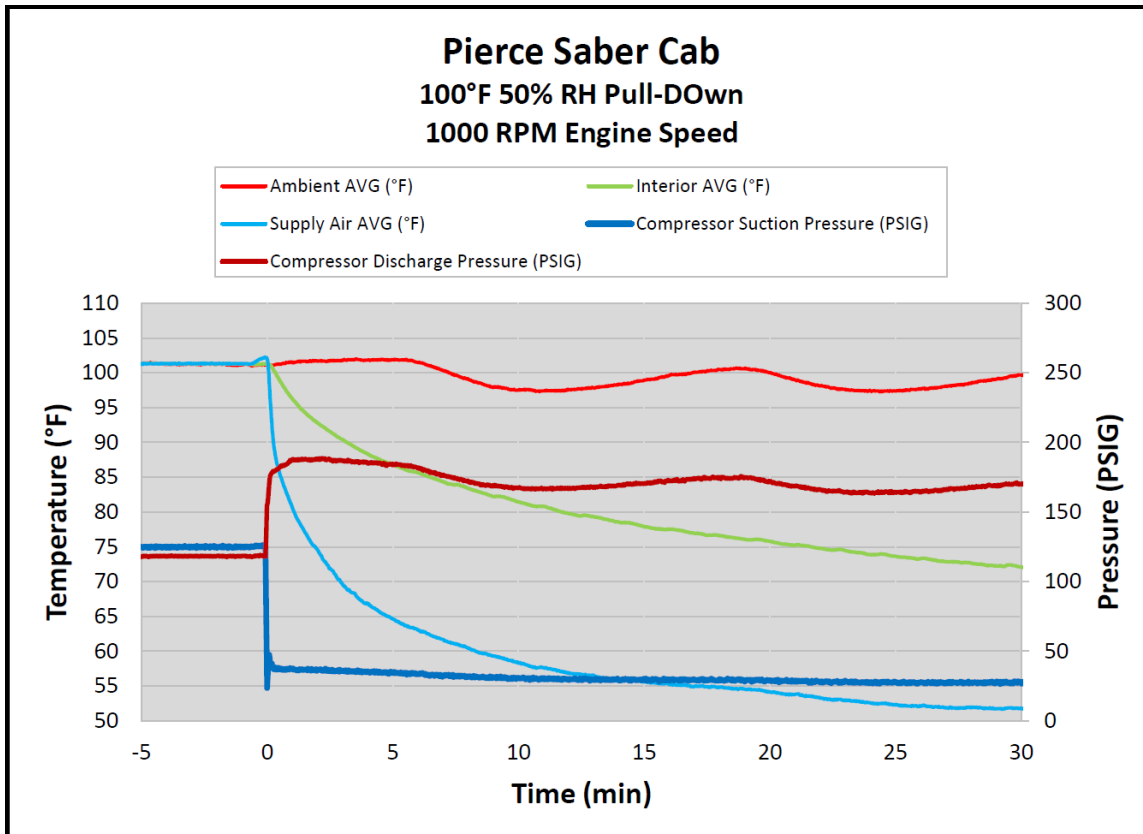
The air conditioning and defrost system was tested successfully in an environmental chamber.

Air Conditioning:

Air conditioning performance testing was conducted at an ambient of 100°F and 50 percent relative humidity. The engine speed was maintained at 1000 RPM with the QP21 compressor.

The vehicle was heat soaked in the environmental chamber. All temperature probes were monitored to confirm temperature stabilization. The transient test began when all the vehicle doors were closed, and the air conditioning turned on.

The average cab temperature dropped to a maximum of 72.1°F within 30 minutes.



Defrosting

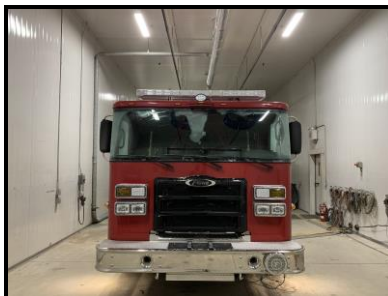
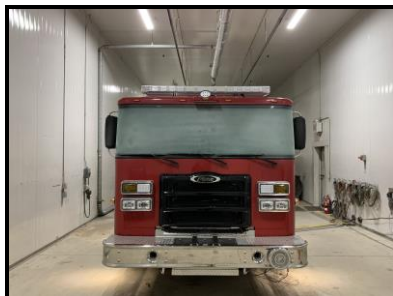
Defroster testing was performed in accordance with *SAE J381 Windshield Defrosting Systems Test Procedure and Performance Requirements-Trucks, Buses, and Multipurpose Vehicles*.

This SAE Recommended Practice establishes uniform test procedures and performance requirements for the defrosting system of enclosed cab trucks, buses, and multipurpose vehicles. Current engineering practice prescribes that for laboratory evaluation of defroster systems, an ice coating of known thickness be applied to the windshield and left- and right-hand side windows to provide more uniform and repeatable test results, even though under actual conditions such a coating would necessarily be scraped off before driving. The test condition, therefore, represents a more severe condition than the actual condition, where the defroster system must merely be capable of maintaining a cleared viewing area.

During the test, the vehicle is cold soaked to 0° F in a cold chamber. A prescribed layer of ice is applied to the windshield. The defroster is then run, and the advancing melt boundary marked as the test proceeds.

The SAE prescribed area of the windshield was 100% cleared and the side windows were 75% cleared within the specified 30-minute period.

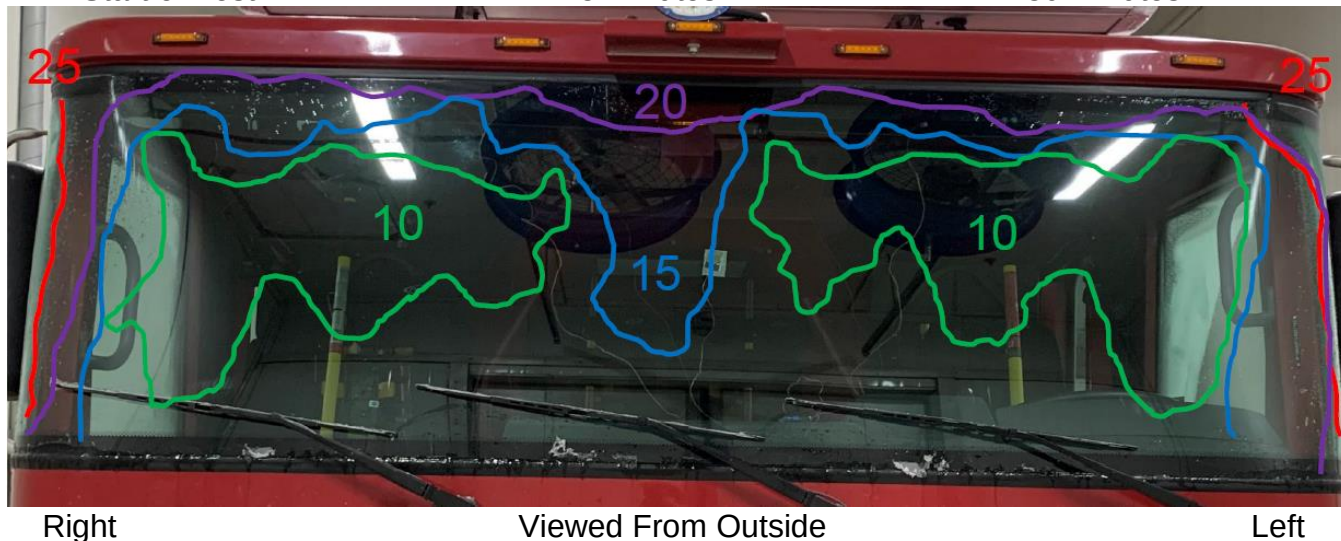
Defrost Results



Start of Test

15 Minutes

30 Minutes



VALIDATION TEST: MCC Test Report TR#19-0047 R00

Pierce Manufacturing, Inc.

A handwritten signature in black ink, appearing to read "David W. Archer". The signature is fluid and cursive, with the first name "David" being more prominent.

David W. Archer
Vice President of Engineering

PIERCE MANUFACTURING INC.®

AN OSHKOSH CORPORATION® COMPANY



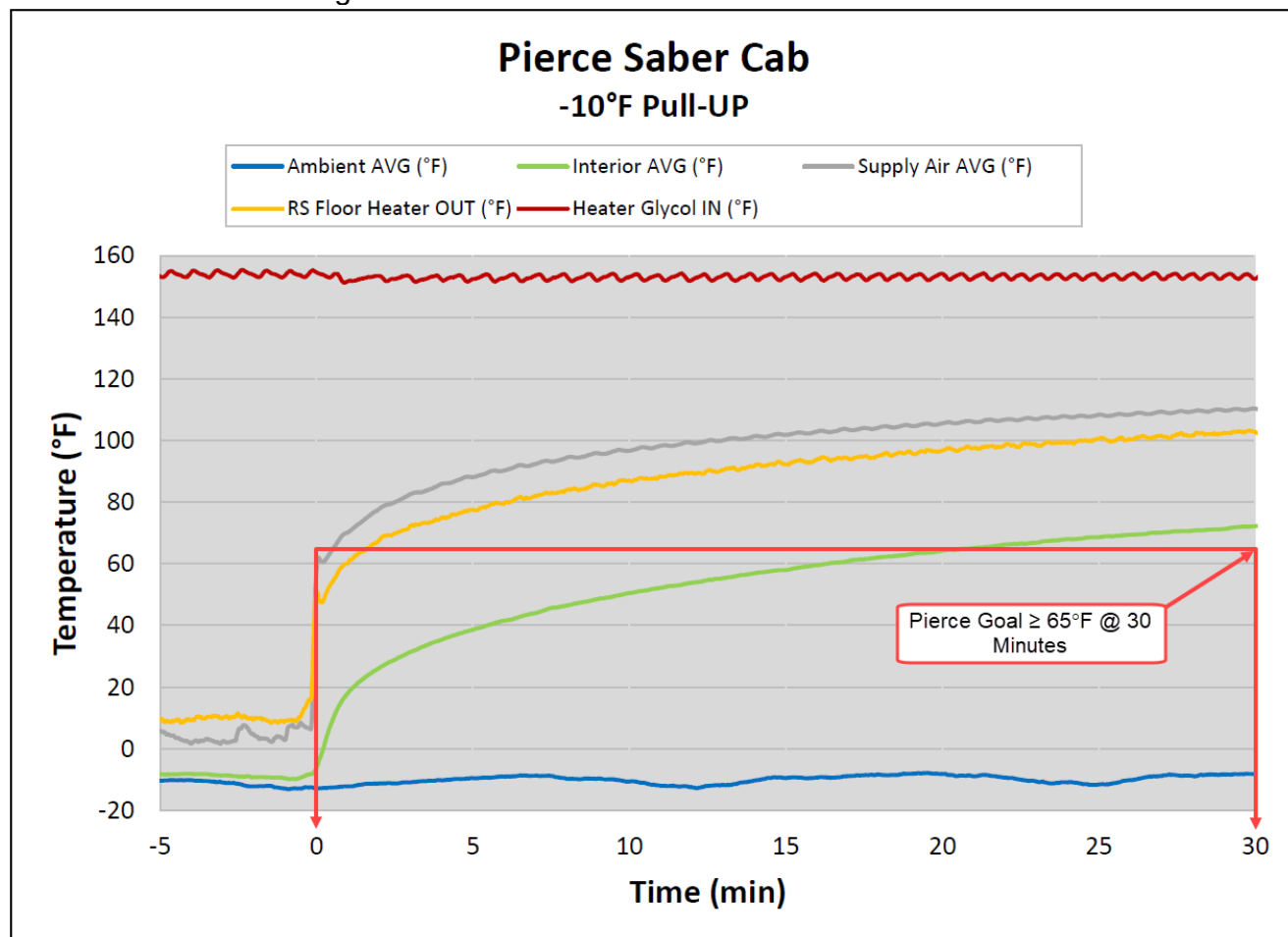
Certification Document CD0174

Saber® FR – Enforcer™ Cab Heater

Pierce Manufacturing, in conjunction with Mobile Climate Control, Inc., certifies the performance of the Saber® FR – Enforcer™ cab heat systems.

The Saber®FR - Enforcer™ Heater System was tested successfully in an environmental chamber.

Heater testing was performed using the coolant supply procedures from SAE J381. The average cab temperature increased 82.3° F from -10° F to 72.3° F within the prescribed 30 minutes utilizing the right side under seat auxiliary heater. The cab was contained in a cold chamber at -10° F during the duration of the test.



VALIDATION TEST: TR#19-0047 R00

Pierce Manufacturing, Inc.

A handwritten signature in black ink, appearing to read "David Archer".

David Archer
Vice President of Engineering

Mobile Climate Control, Inc.

A handwritten signature in purple ink, appearing to read "Brent Griffith".

Brent Griffith
Lead Test Engineer & Large Application Specialist

PIERCE MANUFACTURING INC.®

AN OSHKOSH CORPORATION® COMPANY



Certification Document CD0175 Saber® FR - Enforcer™ Air Conditioning & Defrost

Pierce Manufacturing, in conjunction with Mobile Climate Control, Inc., certifies the performance of the Saber®FR - Enforcer™ cab air conditioning and defrost system.

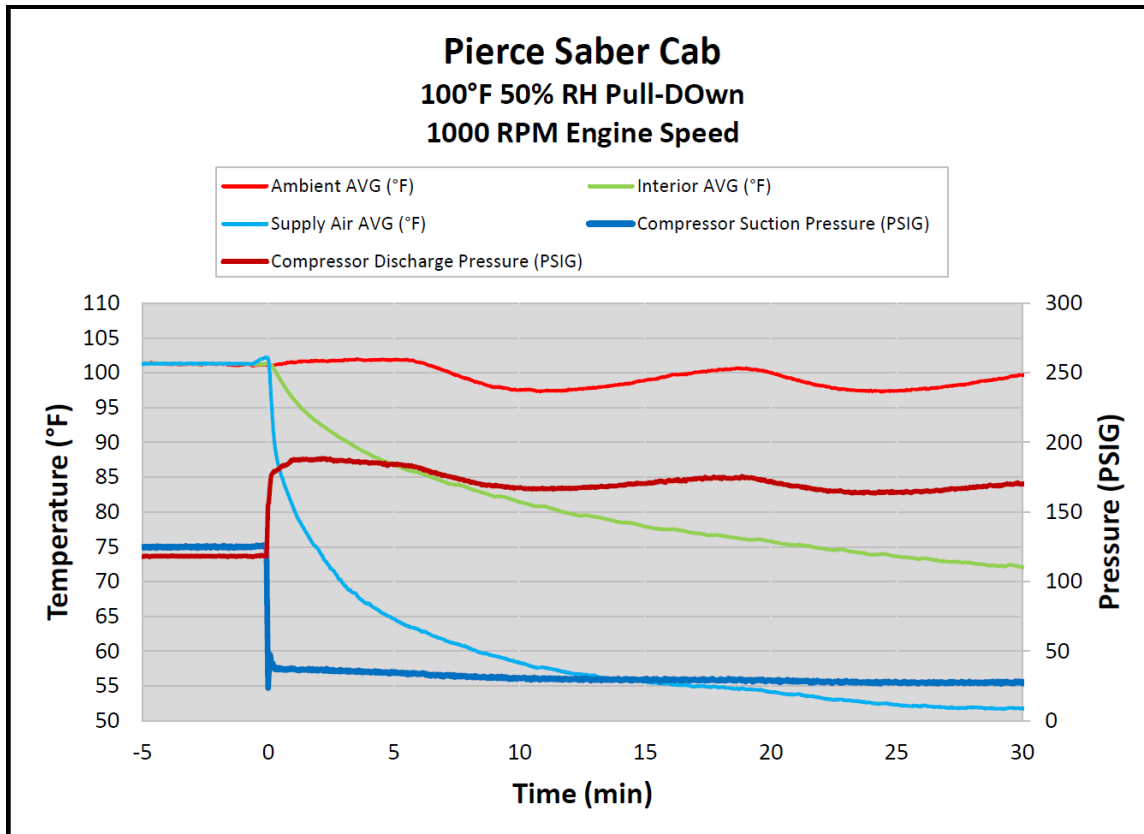
The air conditioning and defrost system was tested successfully in an environmental chamber.

Air Conditioning:

Air conditioning performance testing was conducted at an ambient of 100°F and 50 percent relative humidity. The engine speed was maintained at 1000 RPM with the QP21 compressor

The vehicle was heat soaked in the environmental chamber. All temperature probes were monitored to confirm temperature stabilization. The transient test began when all the vehicle doors were closed, and the air conditioning turned on.

The average cab temperature dropped to a maximum of 72.1°F within 30 minutes.



Defrosting

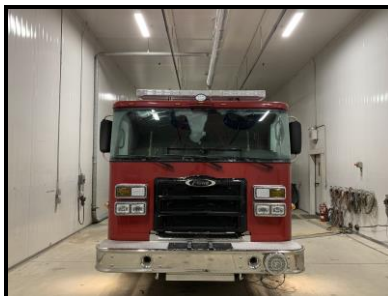
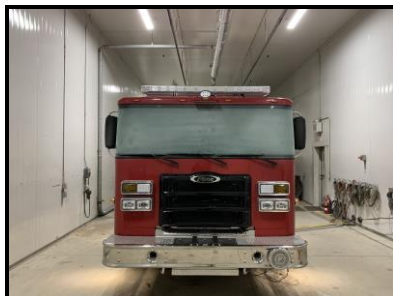
Defroster testing was performed in accordance with *SAE J381 Windshield Defrosting Systems Test Procedure and Performance Requirements-Trucks, Buses, and Multipurpose Vehicles*.

This SAE Recommended Practice establishes uniform test procedures and performance requirements for the defrosting system of enclosed cab trucks, buses, and multipurpose vehicles. Current engineering practice prescribes that for laboratory evaluation of defroster systems, an ice coating of known thickness be applied to the windshield and left- and right-hand side windows to provide more uniform and repeatable test results, even though under actual conditions such a coating would necessarily be scraped off before driving. The test condition, therefore, represents a more severe condition than the actual condition, where the defroster system must merely be capable of maintaining a cleared viewing area.

During the test, the vehicle is cold soaked to 0° F in a cold chamber. A prescribed layer of ice is applied to the windshield. The defroster is then run, and the advancing melt boundary marked as the test proceeds.

The SAE prescribed area of the windshield was 100% cleared and the side windows were 75% cleared within the specified 30-minute period.

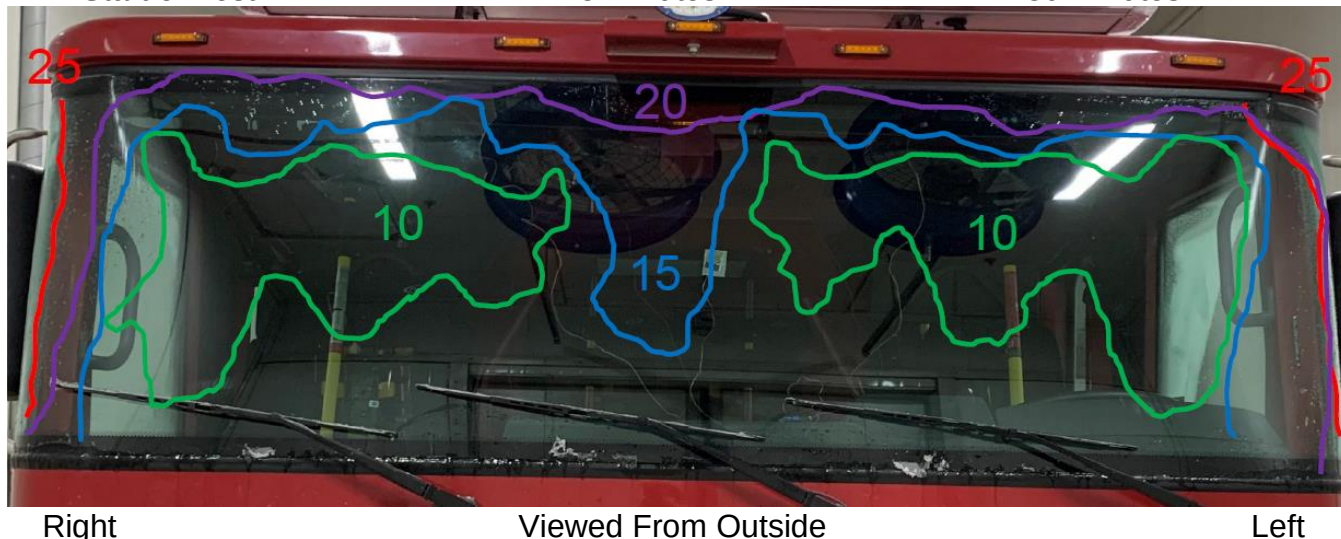
Defrost Results



Start of Test

15 Minutes

30 Minutes



VALIDATION TEST: MCC Test Report TR#19-0047 R00

Pierce Manufacturing, Inc.

A handwritten signature in black ink, appearing to read "David W. Archer".

David W. Archer
Vice President of Engineering

Mobile Climate Control, Inc.

A handwritten signature in purple ink, appearing to read "Brent Griffith".

Brent Griffith
Lead Test Engineer & Large Application Specialist

Fire Apparatus Manufacturers' Association



Certificate of Membership

In accordance with its bylaws,
FAMA affirms that

Pierce Manufacturing, Inc.

meets the membership qualifications
and is a member in good standing through

2021

A handwritten signature in black ink, which appears to read "Jeromie Johnston", is written over a horizontal line.

Jeromie Johnston
FAMA Board President

ABS Quality Evaluations

Certificate Of Conformance

This is to certify that the Quality Management System of:

Pierce Manufacturing, Inc. (A Division of Oshkosh Corporation)

**41 Assembly Plant
2600 American Drive
Appleton, WI 54914
U.S.A.**

(WITH ADDITIONAL FACILITIES LISTED ON ATTACHED ANNEX)

has been assessed by ABS Quality Evaluations, Inc. and found to be in conformance with the requirements set forth by:

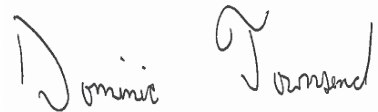
ISO 9001:2015

The Quality Management System is applicable to:

DESIGN, MANUFACTURE, REPAIR, REFURBISHMENT AND SERVICING OF FIRE AND EMERGENCY VEHICLES

This certificate may be found on the ABS QE Website (www.abs-qe.com). For certificates issued in the People's Republic of China information may also be verified on the CNCA website (www.cnca.gov.cn).

Certificate No: 32454
Certification Date: 27 March 1998
Effective Date: 31 December 2018
Expiration Date: 08 March 2022
Revision Date: 22 May 2020



Dominic Townsend, President



Validity of this certificate is based on the successful completion of the periodic surveillance audits of the management system defined by the above scope and is contingent upon prompt, written notification to ABS Quality Evaluations, Inc. of significant changes to the management system or components thereof.

ABS Quality Evaluations, Inc. 1701 City Plaza Drive, Spring, TX 77389, U.S.A.

Validity of this certificate may be confirmed at www.abs-qe.com/cert_validation.

ABS Quality Evaluations

ISO 9001:2015

Certificate Of Conformance

ANNEX

Certificate No: 32454

Pierce Manufacturing, Inc. (A Division of Oshkosh Corporation)

At Below Facilities:

Facility: Global Logistics Center
498 N. Perkins Street
Appleton, WI 54914
U.S.A.

Activity: Materials distribution, warranty, service and repair of vehicles.

Facility: Industrial Park Plant (IPP)
3100 N. MacCarthy Road
Appleton, WI 54913
U.S.A.

Activity: Design, assembly, paint, test.

Facility: Midwest Regional Service Center
816 Commercial Avenue
Weyauwega, WI 54983
U.S.A.

Activity: Refurbishment/Design/Service and Warranty Repair/Test.

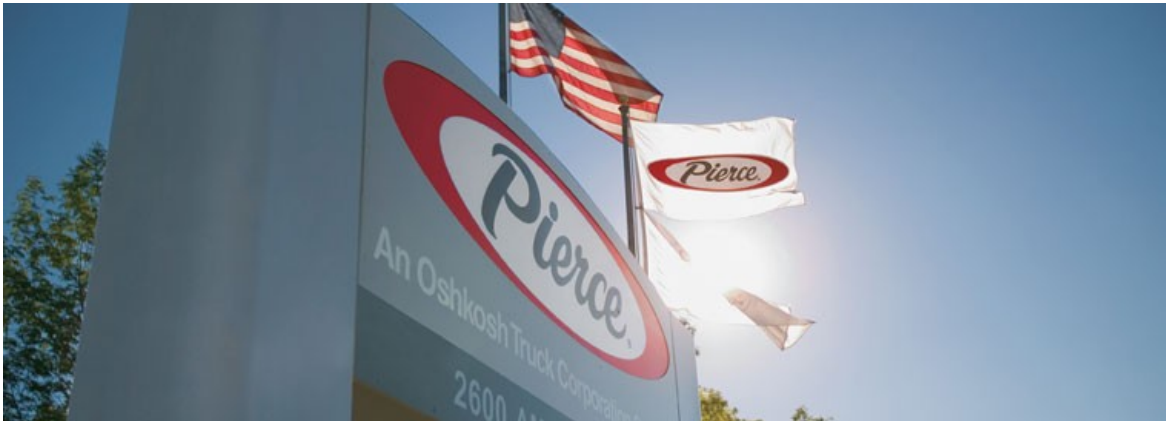
Facility: Oshkosh Airport Products
1515 County Road O
Neenah, WI 54956
U.S.A.

Activity: Design and assembly of airport rescue and fire fighting trucks.



Validity of this certificate may be confirmed at www.abs-qe.com/cert_validation.

Pierce Manufacturing





CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
03/19/2018

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

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

PRODUCER Hays Companies 1200 North Mayfair Road, Suite 100 Milwaukee, WI 53226	1-414-443-0000	CONTACT NAME: PHONE: (A/C, No, Ext): E-MAIL: ADDRESS:	FAX (A/C, No):
INSURED Pierce Manufacturing Inc. P.O. Box 2017 Appleton, WI 54912-2017		INSURER(S) AFFORDING COVERAGE INSURER A: NATIONAL FIRE & MARINE INS CO INSURER B: TRAVELERS PROPERTY CAS CO OF AMER INSURER C: PHOENIX INS CO INSURER D: BERKLEY NATL INS CO INSURER E: INSURER F:	
		NAIC # 20079 25674 25623 38911	

COVERAGES

CERTIFICATE NUMBER: 52318109

REVISION NUMBER:

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

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	☒ COMMERCIAL GENERAL LIABILITY ☐ CLAIMS-MADE ☒ OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: ☒ POLICY ☐ PRO-JECT ☐ LOC OTHER:	X		42-GLO-100190-04	04/01/18	04/01/19	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 500,000 MED EXP (Any one person) \$ Excluded PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 5,000,000 PRODUCTS - COMP/OP AGG \$ 1,000,000 \$
B	AUTOMOBILE LIABILITY ☒ ANY AUTO ☐ OWNED AUTOS ONLY ☐ HIRED AUTOS ONLY ☐ SCHEDULED AUTOS ☐ NON-OWNED AUTOS ONLY			TJCAP118D2004TIL17	10/01/17	10/01/18	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
A	☒ UMBRELLA LIAB ☒ OCCUR ☐ EXCESS LIAB ☐ CLAIMS-MADE DED RETENTION \$			42-UMO-100191-04	04/01/18	04/01/19	EACH OCCURRENCE \$ 15,000,000 AGGREGATE \$ 15,000,000 \$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below		N/A	TRJUB117D757717 TC2NUB117D756517	10/01/17 10/01/17	10/01/18 10/01/18	☒ PER STATUTE ☐ OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
D	Excess Liability			CRX0960017405	04/01/18	04/01/19	Ea Occ/Agg 10,000,000

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

Additional Insured when required by written contract.

CERTIFICATE HOLDER**CANCELLATION**

Front Range Fire Apparatus 7600 Miller Court Longmont, CO 80504	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE 
USA	

© 1988-2015 ACORD CORPORATION. All rights reserved.

Auto Industry Division, 1881 Pierce Street, Lakewood CO 80214
LICENSE



License #: 9233

This Certifies

Is duly licensed
as a motor vehicle/
powersports

PIERCE MANUFACTURING INC
Motor Vehicle Manufacturer

This license is issued under the provisions of Title 12, Article 6, Colorado Revised Statutes.

PIERCE MANUFACTURING INC
120 S. Central Ave., Suite 400
Saint Louis MO 63105



Michael Hartman
EXECUTIVE DIRECTOR
Department of Revenue

Display at place of business

OFFICE OF THE SECRETARY OF STATE
OF THE STATE OF COLORADO

CERTIFICATE OF FACT OF GOOD STANDING

I, Wayne W. Williams, as the Secretary of State of the State of Colorado, hereby certify that,
according to the records of this office,

Pierce Manufacturing Company

is an entity formed or registered under the law of Tennessee, has complied with all
applicable requirements of this office, and is in good standing with this office. This entity has
been assigned entity identification number 20171636101 and has provided the assumed entity
name for use in Colorado

Pierce Corporation

This certificate reflects facts established or disclosed by documents delivered to this office on
paper through 08/06/2018 that have been posted, and by documents delivered to this office
electronically through 08/08/2018 @ 16:36:43.

I have affixed hereto the Great Seal of the State of Colorado and duly generated, executed, and issued this
official certificate at Denver, Colorado on 08/08/2018 @ 16:36:43 in accordance with applicable law. This
certificate is assigned Confirmation Number 11052899.



A handwritten signature in blue ink that reads 'Wayne W. Williams'. The signature is written in a cursive style.

Secretary of State of the State of Colorado

*****End of Certificate*****

Notice: A certificate issued electronically from the Colorado Secretary of State's Web site is fully and immediately valid and effective. However, as an option, the issuance and validity of a certificate obtained electronically may be established by visiting the Validate a Certificate page of the Secretary of State's Web site, <http://www.sos.state.co.us/biz/CertificateSearchCriteria.do> entering the certificate's confirmation number displayed on the certificate, and following the instructions displayed. Confirming the issuance of a certificate is merely optional and is not necessary to the valid and effective issuance of a certificate. For more information, visit our Web site, <http://www.sos.state.co.us/> click "Businesses, trademarks, trade names" and select "Frequently Asked Questions."

Pierce Celebrates Its 100th Year in Business

Pierce Manufacturing, an Oshkosh Corporation (NYSE:OSK) company, and the leading U.S. manufacturer of fire and emergency vehicles, is celebrating its 100th Anniversary in 2013. Pierce is kicking off its yearlong commemoration by launching a special website section located at www.piercemfg.com/100thAnniversary. The site features an interactive historical timeline, a 100th Anniversary video, a photo contest, limited edition merchandise, and upcoming events.

"Pierce is a company with humble beginnings, a rich history, and an exciting future," said Jim Johnson, Oshkosh Corporation executive vice president and president of the Fire & Emergency segment and Pierce Manufacturing. "It is significant that only a small fraction of companies from any industry achieve the 100 year milestone. On behalf of Pierce employees, and all those who preceded us, we pledge an unwavering level of commitment to firefighters, and boldness in our thinking, as we look ahead to the next hundred years."

Founded in 1913 by Humphrey and Dudley Pierce in Appleton, Pierce Manufacturing first built after-market bodies for Ford Model T chassis. In 1939, the company manufactured its first fire truck body and grew to 20 employees. In 1958, ushering in a new era of boom and platform vehicles, Pierce designed the first ever articulating aerial apparatus that was used to reach up and over tall obstructions. Pierce introduced its first custom chassis and body – the Arrow – in 1982, and that design changed the face of the modern fire industry. Pierce Manufacturing has built 51,650 fire trucks and 27,000 custom chassis.

Pierce manufactures pumpers, tankers, aerials, wildland pumpers, rescues, hazmat, and communication vehicles.

More recent examples of Pierce innovations include industry firsts like the **Dash® CF** fire apparatus (that features an innovative cab-forward design), frontal airbag and the side roll protection systems, and the patented **Pierce Ultimate Configuration (PUC)** response vehicle. Other examples include **Command Zone™** advanced electronics to enhance vehicle troubleshooting and reliability, and **TAK-4®** independent front suspension for unmatched vehicle maneuverability. Pierce engineers and manufactures its own **Husky® foam** and **Hercules®** compressed air foam systems that more effectively attack and suppress structural, wildland, automobile, and fuel fires. Every vehicle component is designed to help firefighters perform safely at their highest level.

"The more than 2,000 people who work for Pierce, including many families with multiple generations of service, are our backbone – and the reason for our longevity, success and growth," added Johnson. "Pierce employees think of their work as more of a vocation than a job, and the average employee tenure is nearly 20 years. That speaks volumes."

Pierce markets its products through the industry's largest and most comprehensive dealer and service network. The company enjoys a nationwide web of dealerships with over 600 certified and factory trained Service Brigade technicians and over 50 service centers. Pierce also offers custom training sessions for fire departments.

Oshkosh Capital offers lease purchases which can range from 3, 5, 7 or 10 year terms.



About Pierce Manufacturing

Pierce Manufacturing Inc., an Oshkosh Corporation [NYSE: OSK] company, is celebrating its 100th year in business in 2013. Pierce is the leading North American manufacturer of custom fire apparatus. Products include custom and commercial pumpers, aerials, rescue trucks, wildland trucks, mini-pumpers, elliptical tankers, and homeland security apparatus. In addition, Pierce designs its own foam systems and was the first company to introduce frontal airbags and the Side Roll Protection system to fire apparatus. To learn more about Pierce, visit www.piercemfg.com.

About Oshkosh Corporation

Oshkosh Corporation is a leading designer, manufacturer and marketer of a broad range of specialty access equipment, commercial, fire & emergency and military vehicles and vehicle bodies. Oshkosh Corporation manufactures, distributes and services products under the brands of Oshkosh®, JLG®, Pierce®, McNeilus®, Jerr-Dan®, Frontline™, CON-E-CO®, London® and IMT®. Oshkosh products are valued worldwide in businesses where high quality, superior performance, rugged reliability and long-term value are paramount. For more information, visit www.oshkoshcorporation.com.

®, TM All brand names referred to in this news release are trademarks of Oshkosh Corporation or its subsidiary companies.

Pierce Manufacturing Inc.

AN OSHKOSH CORPORATION COMPANY • ISO 9001:2000 CERTIFIED



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

October 8, 2013

Re: Pierce Authorized Dealership

To whom it may concern:

Front Range Fire Apparatus with its corporate location at 7600 Miller Ct, Frederick West Business Park, Longmont, CO 80504 is an authorized Pierce Manufacturing, Inc. dealership. Front Range is the only dealership authorized to sell Pierce apparatus in the states of Wyoming, Nebraska, and Colorado and is the sole source for Pierce fire/rescue apparatus in those areas. Front Range Fire Apparatus has been representing Pierce Manufacturing, Inc. since 1985 and has the authorization to sign bid documents on Pierce's behalf. If you have questions, or need further information, please feel free to contact me.

Yours very truly,

PIERCE MANUFACTURING, INC.

A handwritten signature in cursive script, appearing to read "David J. Stoffel".

David J. Stoffel

Sr. Manager, Order Management

**Environmental Protection Department
Environmental Management Practice
Pierce Manufacturing Inc.**

At Pierce Manufacturing Inc. (Pierce), a subsidiary of Oshkosh Corporation, the primary responsibility of the Environmental Protection Department is to provide oversight to ensure that all facilities and company activities continue to operate in compliance with applicable environmental laws and regulations. Specifically, Pierce facilities are subject to State and Federal regulatory programs that involve issues such as air quality, waste generation and disposal, process wastewater, storm water management, underground/aboveground storage tanks, and emergency planning and community right-to-know. Regulations that apply to company activities are contained in the Environmental Protection Agency regulations of Chapter 40 Code of Federal Regulations, Department of Transportation Regulations in Chapter 49 Code of Federal Regulations, Environmental Protection Regulations in the Wisconsin NR Rules, and state/local wastewater and storm drainage rules. The Pierce facilities are in compliance with these applicable regulations including applicable ozone-depleting substances regulations.

As required by these environmental regulatory programs, Pierce Environmental Protection Department personnel perform weekly and/or monthly assessments, inspections, and recordkeeping activities. In addition to these internal inspections, our facilities are inspected by Federal, State, and Local environmental agencies. Pierce has an outstanding compliance history, and a good working relationship with these agencies. Pierce was acquired by Oshkosh Truck in September 1996. Since that time, Pierce has not had any environmental fines or penalties, and Pierce has a good working relationship with the Wisconsin Department of Natural Resources (WDNR). Pierce had voluntarily committed to reducing Volatile Organic Compounds (VOCs) and conducted extensive research on the reformulation of the hundreds of different paints Pierce uses. As a result, Pierce was the first Wisconsin manufacturer in the industry to successfully use low VOC coatings, and has received two environmental protection awards for doing so. In August 2000, Pierce was nominated by the WDNR and received the WDNR's Prevention/Environment/Prosperity (PEP) Award for their innovative paint emission reduction program. In May 2001, Pierce was presented with the Wisconsin Business Friend of the Environment Award in recognition of Pierce's leadership in environmental protection.



FIRE APPARATUS MANUFACTURERS' ASSOCIATION

P.O. Box 387 • Lynnfield, MA 01940-0387 • Phone/Fax: (781) 334-2911

January 8, 2004

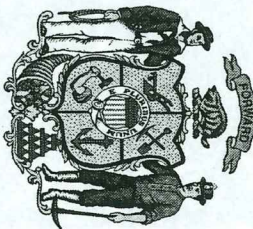
To Whom It May Concern:

This letter will verify that Pierce Manufacturing, Inc. has
been a member of the Fire Apparatus Manufacturers' Association
(FAMA) since 1968.

Very truly yours,

Karen H. Burnham
Administrative Assistant

E-mail: fama@shosw.net • www.fama.org



DEPARTMENT OF
FINANCIAL INSTITUTIONS

**STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF MOTOR VEHICLES**

**MOTOR VEHICLE DEALER - RECREATIONAL VEHICLE DEALER
SALES FINANCE - MANUFACTURER - DISTRIBUTOR
LICENSE CERTIFICATE**

The person, firm or corporation whose name appears on this license has complied with the requirements of Wisconsin statutes and is hereby licensed to engage in business as a motor vehicle dealer sales finance company and / or as a motor vehicle dealer, recreational vehicle dealer, manufacturer, or distributor to sell, manufacture or distribute the makes of vehicles printed below.

This license and your license plates cannot be assigned or transferred.

If there is a change of ownership or if licensee discontinues business at this location this certificate and all dealer's license plates of the number shown hereon must be returned immediately for cancellation.

LICENSE NUMBER
MMV-6025

ISSUED
02/01/2018

EXPIRES
01/31/2020

BRANCH / SUBLOT

**MAKES
PRICE**

PIERCE MANUFACTURING INC
2600 AMERICAN DR
APPLETON WI 54914-9010

Mailing addr exists 63105



MMV1045 10/2008

POST IN A CONSPICUOUS PLACE

The Fire Apparatus Manufacturers Association,

in accordance with its by-laws, affirms



Association
standing

has been issued
1996 by

meets the membership
for the year 1996

in witness whereof, this
affirms

Samuel H. Brown

FAMA President

FAMA Membership Chairman



MANUFACTURING INC.

TO: WHOM IT MAY CONCERN
FROM: Ken Kamprath - Chief Engineer R&D
DATE: November 5, 1996
SUBJECT: Second Generation Body Design and Test

A handwritten signature in black ink, appearing to read "Ken Kamprath", written over the "FROM:" line of the memo.

The Pierce Second Generation body has completed extensive design analysis and performance testing. Both aluminum and steel body constructions were evaluated. The testing was completed in July of 1994. The testing consisted of three phases: modal analysis, brittle lacquer coating and strain gaging.

Modal analysis is a computerized vibration analysis tool used to generate animated mode shapes. A shaker is attached to the truck frame to generate the simulated vibrations. The animated mode shapes give a computerized "picture" of what the body goes through during actual vibration and shock loading. The animated mode shape shows the areas of dissimilar (not normal) motion on the body. This helps the engineer "zero in" on potential areas of high stress concentration.

Once these areas are determined, a brittle lacquer coating is applied to the body surface. The vehicle is taken through a series of in-lab and on-road test events to generate "crazing" of the brittle lacquer. The "crazing" shows the stress concentration location and direction. Now the engineer can apply a strain gage to measure the exact material stress occurring at the exact point of maximum stress concentration.

The Second Generation body used over 30 strain gages to verify the structural toughness. The strain gages were applied to the body sheet metal as well as the supporting substructure. The test vehicles were subjected to 9 inch blocks placed diagonally under one front wheel and one rear wheel. The vehicle was severely twisted to simulate the motions a vehicle sees when exiting off a driveway apron and onto the roadway when responding to an emergency call. In addition the vehicle was driven over severe bumps, through turns and evasive maneuvers. Acceleration, deceleration and hard stops were performed. During all of the in-lab and on-road test events, the strain gage data was collected with on-board computerized data acquisition equipment. All of the data was collected "real time" or as the event was happening.

The Pierce Second Generation body was thoroughly tested using proven computerized methods. In addition the bodies were tested over actual road events to assure many years of satisfying service.



Auto Industry Division, 1881 Pierce Street, Lakewood CO 80214
LICENSE



License #: 200

This Certifies

Is duly licensed
as a motor vehicle/
powersports

FRONT RANGE FIRE APPARATUS
Franchised Motor Vehicle Dealer

This license is issued under the provisions of Title 12, Article 6, Colorado Revised Statutes.

FRONT RANGE FIRE APPARATUS
7600 MILLER CT
Frederick CO 80504



Display at place of business

ALL INFORMATION LISTED ON THIS LICENSE APPLIES TO THE LICENSEE NAMED ABOVE

Owners OK to Sell:

Demo Plates: Y

Full Use Plates: N

Primary Location:

7600 MILLER CT, FREDERICK CO 80530-0000

Additional Location:



FRONRAN-05

SJOECKEL

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

02/08/2018

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

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

PRODUCER T. Charles Wilson Insurance Service 384 Inverness Parkway Suite 170 Englewood, CO 80112	CONTACT NAME:		
	PHONE (A/C, No, Ext):	(303) 368-5757	FAX (A/C, No): (303) 368-5863
	E-MAIL ADDRESS:	info@wilsonins.com	
	INSURER(S) AFFORDING COVERAGE		NAIC #
	INSURER A :	Arch Insurance Company	11150
INSURED Front Range Fire Apparatus LLC 7600 Miller Ct. Longmont, CO 80504	INSURER B :	Pinnacol Assurance	41190
	INSURER C :		
	INSURER D :		
	INSURER E :		
	INSURER F :		

COVERAGES

CERTIFICATE NUMBER:

REVISION NUMBER:

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

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	☒ COMMERCIAL GENERAL LIABILITY ☐ CLAIMS-MADE ☒ OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: ☐ POLICY ☐ PROJECT ☒ LOC OTHER:			MFPK08553104	12/27/2017	12/27/2018	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 1,000,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 GARAGE LIABILITY \$ Included
A	☒ AUTOMOBILE LIABILITY ☒ ANY AUTO ☐ OWNED AUTOS ONLY ☐ SCHEDULED AUTOS ☐ HIRED AUTOS ONLY ☐ NON-OWNED AUTOS ONLY			MFCA08347004	12/27/2017	12/27/2018	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
A	☒ UMBRELLA LIAB ☒ OCCUR ☐ EXCESS LIAB ☐ CLAIMS-MADE DED ☐ RETENTION \$			MFUM07987204	12/27/2017	12/27/2018	EACH OCCURRENCE \$ 3,000,000 AGGREGATE \$ 3,000,000 \$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) ☐ Y / N If yes, describe under DESCRIPTION OF OPERATIONS below		N / A	4043254	05/01/2016	05/01/2017	☒ PER STATUTE ☐ OTH-ER E.L. EACH ACCIDENT \$ 500,000 E.L. DISEASE - EA EMPLOYEE \$ 500,000 E.L. DISEASE - POLICY LIMIT \$ 500,000
A	Property			MFPK08553104	12/27/2017	12/27/2018	Stock Autos 8,000,000
A	Business Auto			MFCA08347004	12/27/2017	12/27/2018	Comp/Coll Ded ea 1,000

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

CERTIFICATE HOLDER

CANCELLATION

Front Range Fire Apparatus LLC

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

AUTHORIZED REPRESENTATIVE

OFFICE OF THE SECRETARY OF STATE
OF THE STATE OF COLORADO

CERTIFICATE OF FACT OF GOOD STANDING

I, Wayne W. Williams, as the Secretary of State of the State of Colorado, hereby certify that, according to the records of this office,

FRONT RANGE FIRE APPARATUS, LIMITED

is a

Corporation

formed or registered on 08/26/1985 under the law of Colorado, has complied with all applicable requirements of this office, and is in good standing with this office. This entity has been assigned entity identification number 19871634538 .

This certificate reflects facts established or disclosed by documents delivered to this office on paper through 08/06/2018 that have been posted, and by documents delivered to this office electronically through 08/08/2018 @ 16:38:28 .

I have affixed hereto the Great Seal of the State of Colorado and duly generated, executed, and issued this official certificate at Denver, Colorado on 08/08/2018 @ 16:38:28 in accordance with applicable law. This certificate is assigned Confirmation Number 11052912 .



A handwritten signature in blue ink that reads "Wayne W. Williams".

Secretary of State of the State of Colorado

*****End of Certificate*****

Notice: A certificate issued electronically from the Colorado Secretary of State's Web site is fully and immediately valid and effective. However, as an option, the issuance and validity of a certificate obtained electronically may be established by visiting the Validate a Certificate page of the Secretary of State's Web site, <http://www.sos.state.co.us/biz/CertificateSearchCriteria.do> entering the certificate's confirmation number displayed on the certificate, and following the instructions displayed. Confirming the issuance of a certificate is merely optional and is not necessary to the valid and effective issuance of a certificate. For more information, visit our Web site, <http://www.sos.state.co.us/> click "Businesses, trademarks, trade names" and select "Frequently Asked Questions."

Pierce Manufacturing Inc.

AN OSHKOSH CORPORATION COMPANY • ISO 9001:2000 CERTIFIED



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

October 8, 2013

Re: Pierce Authorized Dealership

To whom it may concern:

Front Range Fire Apparatus with its corporate location at 7600 Miller Ct, Frederick West Business Park, Longmont, CO 80504 is an authorized Pierce Manufacturing, Inc. dealership. Front Range is the only dealership authorized to sell Pierce apparatus in the states of Wyoming, Nebraska, and Colorado and is the sole source for Pierce fire/rescue apparatus in those areas. Front Range Fire Apparatus has been representing Pierce Manufacturing, Inc. since 1985 and has the authorization to sign bid documents on Pierce's behalf. If you have questions, or need further information, please feel free to contact me.

Yours very truly,

PIERCE MANUFACTURING, INC.

A handwritten signature in black ink, appearing to read "David J. Stoffel". The signature is fluid and cursive, with the first name "David" being more prominent.

David J. Stoffel

Sr. Manager, Order Management

PIERCE MANUFACTURING INC.

AN OSHKOSH TRUCK CORPORATION COMPANY • ISO 9001 CERTIFIED

2600 AMERICAN DRIVE

POST OFFICE BOX 2017

APPLETON, WISCONSIN 54913-2017

920-832-3000 • FAX 920-832-3208



April 4, 2002

To Whom It May Concern:

This letter is verification that Front Range Fire Apparatus, LTD. is an official Pierce Manufacturing authorized repair facility.

Sincerely,
Pierce Manufacturing Inc.

A handwritten signature in black ink, appearing to read "Joe Barry".

Joe Barry
Technical Service Manager



Service Center



7600 Miller Ct. Frederick, Colorado
303-449-9911



Service Facility

The industry leading service facility at Front Range Fire Apparatus offers complete maintenance, inspections, and repair on emergency rescue apparatus, including non-Pierce and non-AEV apparatus. Whether it's basic preventative maintenance or complete restorations, our technicians take great pride in providing all the services you need to keep your fleet ready.

Our service facility is fully insured and staffed by Pierce Master Technicians that are EVT and ASE certified, as well as stocked with state-of-the-art equipment, including diagnostic software, truck lifts, and a mobile draft commander pump test trailer. The facility consists of over 15,000 square feet with room for up to 14 apparatus.

MEET THE TEAM



ASHER STRAW

Service Manager

AsherS@frontrangefire.com



DOUG BEAM

Technical Support/Warranty

DougB@frontrangefire.com



MICHAEL MELICK

Parts Representative

MichaelM@frontrangefire.com



ASPEN GURLEY

Parts Representative/Warranty

AspenG@frontrangefire.com



MICHAEL LACY

Parts Representative

MichaelL@frontrangefire.com



Service Technicians



**BRAD
SHAEFER**



**JEFF
MONKE**



**CODY
ESPINOZA**



**WESLEY
WILLIAMS**

www.frontrangefire.com

7600 Miller Court
Frederick, CO 80504
303-449-9911
info@frontrangefire.com

**Proudly serving the fire service industry
for over 45 years.**



**GENERAL MAINTENANCE, SERVICE REPAIRS, AND INSPECTIONS
ON ALL MAKES AND MODELS OF FIRE APPARATUS.**

Service, Repair , and Installation

Generator

Air brake

CAFS and foam system

Fire Pump

Tank

Electrical

Steel water and UPF poly tank

Onboard battery chargers

Air systems

Custom Welding and Fabrication

Steel

Aluminum

UL Inspection and Repair

Aerial Service and Repair

Structural

Hydraulic

Electrical

Apparatus Body and Accident Repair

...and more!

**Whether your truck is out of
service with a major repair issue
or just needs an oil change, our
service technicians are here for
you.**



Mobile Service

Apparatus training

Service contracts

Customized preventative maintenance programs

Annual pump tests and acceptance tests

Certified pump, plumbing and valve repairs

CAFS and foam system installation

Electrical system repairs and upgrades

Air brake maintenance repair and service

Aerial maintenance and repair





18th Annual Fire Leadership Challenge

Extraordinary Leadership in Turbulent Times

Certificate of Appreciation

Presented To

Front Range Fire Apparatus

*For participation in and support of
The Colorado State Fire Chiefs Association
19th Annual Leadership Challenge*

December 5, 2009

Chris Riley - Colorado State Fire Chiefs Association

Dave Parmley - Conference Chair



Organized December 23, 1916

Colorado State Fire Fighters Association

Certificate of Membership

To Whom It May Concern, Greetings:

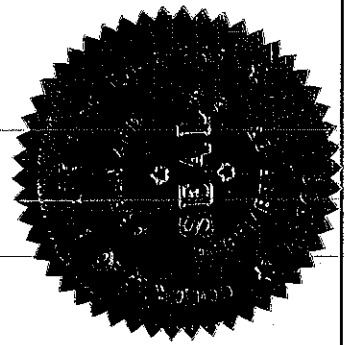
This Certifies That

Front Range Fire Apparatus

Having complied with all the requirements of the Constitution and By-Laws of the Colorado State Fire Fighters Association, is hereby declared an Associate Member and is entitled to all Rights, Privileges and Benefits of Associate Membership in said Association.

June 16 / 2007
Date

[Signature]
President



[Signature]
Treasurer

[Signature]
Secretary

STATE OF COLORADO



DEPARTMENT OF
STATE

CERTIFICATE

I, NATALIE MEYER, Secretary of State of the State of Colorado hereby certify that the prerequisites for the issuance of this certificate have been fulfilled in compliance with law and are found to conform to law.

Accordingly, the undersigned, by virtue of the authority vested in me by law, hereby issues A CERTIFICATE OF INCORPORATION
TO FRONT RANGE FIRE APPARATUS, LIMITED.



Natalie Meyer
SECRETARY OF STATE

DATED: AUGUST 26, 1985

Front Range Fire Apparatus Sales & Operations

Duane Doucette

Owner
Truck Sales Rep
Denver/Metro Area
Cell: (303) 304-6118
Office: (303) 449-9911 x 121
DuaneD@FrontRangeFire.com



Wayne Kerber

Truck Sales Rep.
North Western Colorado/ Mountains
Cell: 970-531-7184
WayneK@FrontRangeFire.com



Jennifer Doucette

Business Operations Manager
Cell: (303) 304-6118
Office: (303) 449-9911 x 130



Don Chapman

Truck Sales Rep
Colorado/Mountains
Cell: 719-588-1580
DonC@FrontRangeFire.com



Mark Balch

Ambulance Sales Rep. Colorado Cell:
303-883-7860
Office: 303-449-9911 x 122
MarkB@FrontRangeFire.com



Jason Byrne

Truck Sales Rep
Cell: 303-929-0079
JasonB@FrontRangeFire.com



Rose Cain

Bookkeeper
Office: 303-449-9911 x 111
RoseC@FrontRangeFire.com



Margaret Doucette

Special Projects Coordinator
Office: 303-449-9911 x 27
MargaretD@FrontRangeFire.com



Front Range Fire Apparatus Service

Asher Straw

Service Manager

Office: 303-449-9911 x 112

Cell: 720-202-4286

AsherS@FrontRangeFire.com



Doug Beam

Technical Support/Warranty Support

Office: 303-449-9911 x 120

Cell: 303-475-5371

DougB@FrontRangeFire.com



Michael Melick

Parts

Office: 303-449-9911 x 131

MichaelM@FrontRangeFire.com



Aspen Gurley

Parts

Office: 303-449-9911 x 118

AspenG@FrontRangeFire.com

NO PHOTO
AVAILABLE

Michael Lacy

Parts

Office: 303-449-9911 x 113

MichaelL@FrontRangeFire.com

NO PHOTO
AVAILABLE

The Customer Service staff of

Pierce Manufacturing Inc.

hereby certify that

Doug Beam

has passed all training requirements needed to be a

Pierce Master Technician

expires 04/2017



A handwritten signature in black ink, appearing to read "Daniel Bailey".

Daniel Bailey, Training Coordinator

The word "Pierce" in a stylized, italicized font, enclosed within a red oval border.

Authorized Sales and Service

Packet Page 463

Emergency Vehicle Technician

Certification Commission, Inc.



Doug Beam

is certified in the areas listed below:

Maintenance, Inspection, & Testing of Fire Apparatus

Expires:

07/30/2020

Design & Performance Standards of Fire Apparatus

07/30/2020

Fire Pumps and Accessories

07/30/2020

Fire Apparatus Electrical Systems

07/30/2020

Aerial Fire Apparatus

06/10/2021

Allison Automatic Transmissions

06/10/2021

Stephen Wilde, President



National Institute for
**AUTOMOTIVE
 SERVICE
 EXCELLENCE**

Be it known that

DOUGLAS A BEAM



has successfully passed the examinations and met the work experience requirement prescribed by the National Institute for Automotive Service Excellence and is hereby **ASE CERTIFIED** in the service areas listed below.

MASTER MEDIUM/HEAVY TRUCK TECHNICIAN

AREAS OF DEMONSTRATED ACHIEVEMENT

GASOLINE ENGINES

DIESEL ENGINES

DRIVE TRAIN

BRAKES

SUSPENSION AND STEERING

ELECTRICAL/ELECTRONIC SYSTEMS

HEATING, VENTILATION, AND A/C

PREVENTIVE MAINTENANCE AND INSPECTION

EXPIRES

JUNE 30, 2021

JUNE 30, 2021

DECEMBER 31, 2020

DECEMBER 31, 2020

DECEMBER 31, 2020

DECEMBER 31, 2020

JUNE 30, 2021

JUNE 30, 2021

*** ** ** ** **

GIVEN THIS 22ND DAY OF APRIL 2016, AT LEESBURG, VIRGINIA

ASE-2669-3249

ASE IDENTIFICATION NUMBER

Timothy A. Zilke
 TIMOTHY A. ZILKE, President

The Customer Service staff of

Pierce Manufacturing Inc.

hereby certify that

Doug Beam

has attended the

Command Zone "D" Module Training

conducted 8/13/2007 through 8/14/2007.



Authorized Sales and Service

David Herzfeldt

Director of Training

The Customer Service staff of

Pierce Manufacturing Inc.

hereby certify that

Douglas A. Beam

has attended the

Chassis Electrical Training

conducted 2/6/2003 through 2/7/2003.



Authorized Sales and Service

David Herzfeldt
Director of Training

The Customer Service staff of

Pierce Manufacturing Inc.

hereby certify that

Douglas Beam

Front Range Fire Apparatus

has completed the

Comprehensive Springboard Parts & Policy Certification

conducted August 2007.



Authorized Sales and Service

David Herzfeldt

Director of Training

The Customer Service staff of

Pierce Manufacturing Inc.

hereby certify that

Doug Beam

has attended the

CAFS/Husky Training

conducted 10/6/2005 through 10/7/2005.



Authorized Sales and Service

David Herzfeldt

Director of Training

The Customer Service staff of

Pierce Manufacturing Inc.

hereby certify that

Doug Beam

has attended the

ALL STEER Maintenance Training

conducted 5/3/2004 through 5/5/2004.



Authorized Sales and Service

David Herzfeldt

Director of Training

The Customer Service staff of

Pierce Manufacturing Inc.

hereby certify that

Doug Beam

has attended the

Aerial Maintenance Training

conducted 10/21/2004 through 10/22/2004.



Authorized Sales and Service

David Herzfeldt

Director of Training



ELECTRICAL SCHOOL

Presented to

Douglas A. Beam

CERTIFICATE OF PARTICIPATION COMPLETING
INTRODUCTION TO PMC IV / MULTIPLEXING

Presented by

PIERCE MANUFACTURING, INC.

December 7, 1998

Steve Benz, Training Manager

The Customer Service staff of

Pierce Manufacturing Inc.

hereby certify that

Doug Beam

has attended the

Command Zone Update Training

conducted 04/04/2002 through 04/05/2002.



Authorized Sales and Service

David Herzfeldt
Director of Training

The Customer Service and Engineering staff of

Pierce Manufacturing

hereby certify that

Doug Beam,

representing Front Range Fire Apparatus, Ltd.,

has attended the

Multiplex and Command Zone Training

conducted November 8 & 9, 1999.





AIR SYSTEM SCHOOL

Presented to

Doug Beam

CERTIFICATE OF PARTICIPATION COMPLETING AN AIR SYSTEM SERVICE SCHOOL

Presented by

PIERCE MANUFACTURING, INC.

May 4, 1997

Hoyda A. DeWald

Vice President - Marketing & Sales



AERIAL SERVICE SCHOOL

Presented to

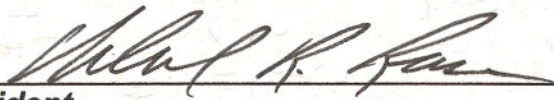
Doug Beam

CERTIFICATE OF PARTICIPATION COMPLETING AN AERIAL SERVICE SCHOOL

Presented by

PIERCE MANUFACTURING, INC.

January 28, 1996



President

The Customer Service staff of

Pierce Manufacturing Inc.

hereby states that

Doug Beam

is now certified in the service of

Side Roll Protection

Training conducted 8/13/2007 through 8/14/2007.



Authorized Sales and Service

David Herzfeldt

Director of Training

The Customer Service staff of

Pierce Manufacturing Inc.

hereby certify that

Doug Beam

has attended the

TAK-4 Maintenance

conducted 10/5/2009 through 10/6/2009.



Daniel Bailey

Daniel Bailey, Training Coordinator

The Customer Service staff of

Pierce Manufacturing Inc.

hereby certify that

Doug Beam

has attended the

Customer Service Administration

conducted 2/23/2009 through 2/24/2009.



Daniel Bailey

Daniel Bailey, Training Coordinator

Pierce

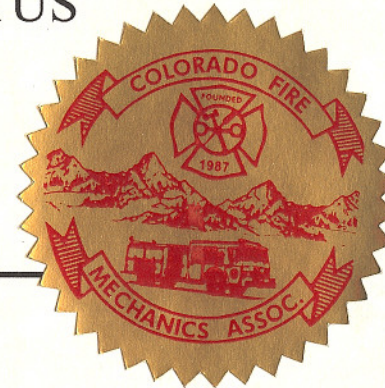
Certificate of Completion

CFM 215C AERIAL APPARATUS

36 hours

PRESENTED TO

Doug A Beam



Colorado Fire Mechanics Association Academy

DATE Friday, August 01, 2003

JF Bumell
Instructor

CO-FMA, President

Certificate Of Achievement

THIS CERTIFIES THAT

Douglas A. Beam

HAS SUCCESSFULLY COMPLETED

THE REQUIREMENTS FOR
**AURAGEN INSTALLATION
TRAINING CERTIFICATION**

#2937



Jim Koleszar 5/2/00
Aura Automotive
Vice President, Sales and Marketing

Date

Richard 5-2-00
Aura Automotive
Field Services Engineer

Date

OSHKOSH TRUCK CORPORATION
CERTIFICATE OF
ACHIEVEMENT

Presented To

DOUGLAS A. BEAM

For Having Participated In
H-SERIES MAINTENANCE TRAINING

October 9, 1997

Date



Mike Randerson
Mike Randerson, Training Specialist

EDUCATION IS THE KEY TO CONTINUOUS IMPROVEMENT



Certificate of Attendance

This is to certify that

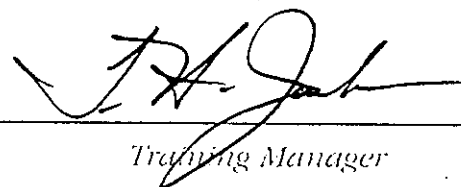
DOUG BEAM

*has completed a
brake seminar covering*

*Air Brake Systems and Foundation Brake Functions,
Maintenance and Troubleshooting*

APRIL 21, 1993

Class Dates Hours:



Training Manager

The Customer Service staff of

Pierce Manufacturing Inc.

hereby certify that

Cody Espinoza

has attended the

PUC Maintenance & Repair

conducted 4/13/2018 through 4/13/2018

Daniel Bailey

Daniel Bailey, Training Coordinator

Pierce

Authorized Sales and Service

The Customer Service staff of

Pierce Manufacturing Inc.

hereby certify that

Cody Espinoza

has attended the

TAK-4 Maintenance & Troubleshooting

conducted 4/11/2018 through 4/12/2018

Daniel Bailey

Daniel Bailey, Training Coordinator

Pierce

Authorized Sales and Service

The Customer Service staff of

Pierce Manufacturing Inc.

hereby certify that

Cody Espinoza

has attended the

Aerial Maintenance

conducted 4/9/2018 through 4/10/2018

Daniel Bailey

Daniel Bailey, Training Coordinator

Pierce

Authorized Sales and Service

Packet Page 486

The Customer Service staff of

Pierce Manufacturing Inc.

hereby certify that

Cody Espinosa

has attended the

Chassis Electrical

conducted 02/26/18 through 02/27/18.

Daniel Bailey

Daniel Bailey, Training Coordinator

Pierce

Authorized Sales and Service

The Customer Service staff of

Pierce Manufacturing Inc.

hereby certify that

Cody Espinosa

has attended the

Command Zone

conducted 02/28/18 through 03/02/18.

Daniel Bailey

Daniel Bailey, Training Coordinator

Pierce

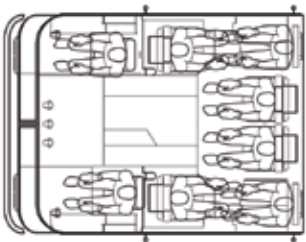
Authorized Sales and Service



STRENGTH IN VERSATILITY.

Proven reliability returns. The Pierce® Enforcer™ chassis is more capable than ever. With TAK-4® independent front suspension, your choice of three powerful engines, and Pierce's exclusive Command Zone™ multiplexed electrical system, the Enforcer performs like never before.

Plus you can take advantage of significant improvements in visibility, space, ergonomics, and serviceability.



Visibility & Space

- Exceptional visibility is achieved through a large, bonded, single-piece, wrap-around windshield
- The smaller engine tunnel is lower & more contoured for increased occupant space, particularly up front for the driver & officer
- The forward roof design offers a cathedral ceiling feel with increased frontal visibility & more configurable space

Ergonomics

- Exterior door handles are functionally designed for a firefighter's gloved hand
- The steps are lower to the ground & offset to function like a stair step, making it easier for firefighters to enter & exit the cab
- The console & metal overhead switch panel are ergonomically designed for maximum convenience & comfort, keeping all of the gauges & switches within easy reach of the driver

Serviceability

- Easy access to wiper motors through removable officer-side panels
- Power distribution relocation provides more interior space & fewer harnesses in the frame & up through the cab for easier servicing
- Built-in wire raceways throughout the cab reduce the chance of wire chafing & make it easier to service or add cab harnesses & wiring

Maneuverability

- Maximum 50 degree cramp angle & 15 degree angle of approach for improved maneuverability in those tight areas & challenging situations

Optional Rugged Interior

- Metal dash/gauge panel and HVAC cover are available

Specifications

Engine	Cummins L9, X12, Detroit Diesel DD13, or PACCAR MX-13
Engine Horsepower	370 – 525 hp
Transmission	Allison 3,000 EVS, 4,000 EVS, or 4,500 EVS
Alternator	270 – 430 amp
Front GAWR (maximum)	24,000 lb
Front Axle Suspension	Leaf or TAK-4™
Cramp Angle (maximum)	50°
Rear GAWR (maximum)	60,000 lb
Rear Axle Suspension	Leaf, rubber, air, TAK-4, or TAK-4 T3™; single or tandem
Frame Rail	13.38" standard; 10.25" optional
Cab Width	96"
Cab Length	60", 70", or 84"
Cab Roof Style	Flat or raised (10" or 24")
Seating Capacity	8
Doors	Barrier or full height
Side Roll Protection	Default
Frontal Air Bags	Default
Electrical System	Hard wired or Command Zone™

www.piercemfg.com



Pierce Manufacturing Inc., An Oshkosh Corporation Company
P.O. Box 2017, Appleton WI 54912-2017 USA

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P-0131-ENFORCERSS 6/21



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Printed in USA.
All other trademarks are the property of their respective owners.



No more building bodies around the pump.

The Pierce® PUC™ eliminates the pumphouse so you can build your apparatus around your needs. It minimizes vehicular space used for fire suppression and maximizes equipment storage while still providing big pump, foam, and CAFS capabilities.

The 1,500 gpm pump (rated for draft) weighs 30 percent less than most existing pumps on the market and comes with a 6-year standard warranty.

The PUC is the first apparatus that offers the most complete single-source build, from the chassis and body down to the pump.



The first modern tilt cab emergency response vehicle purpose-built for today’s fire service.

How to operate PUC Sure Shift Technology:

- STEP 1 That's it.
- STEP 2 Want more steps to operate your pump? You'll have to go elsewhere.

2-step technology reduces shift operations while removing the traditional grinding and uncertainty of putting a traditional mid-ship pump into gear. The park-to-neutral feature places the transmission into neutral automatically when the parking brake is set. The single-touch water-foam CAFS suppression selection located on the dash has the system up and functional before the operator is out of the cab.

A smarter pump panel.

We enclosed the pump operators panel on the side mount to keep it clean of grime, grit, and moisture. The Control Zone™ pump panel is designed to fit the way you work with:

- Large lever control handles that lock to prevent valve creep under pressure
- Multi-functional pressure governor
- Extra large engine rpm display
- Hose location on the side of the pump panel instead of under it
- Fuel level monitoring
- Pump prognostics



True pump and roll standard



Single-touch water-foam CAFS selection



PUC side-mount pump panel

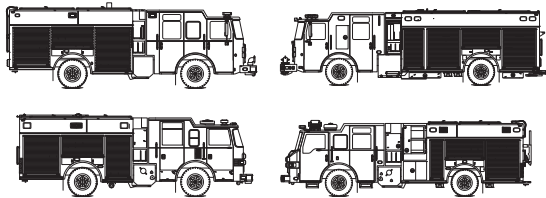


PUC top-mount pump panel



PUC™ changes everything.

Get more compartment space, a lower hosebed and crosslays, true pump and roll, a shorter wheelbase, easy servicing, and unmatched design flexibility.



PUMPER PUC SPECS

Custom Chassis	Arrow XT™, Enforcer™, Impel®, Quantum®, Velocity®
Tank Capacities	Up to 1,500 gallons / lifetime warranty
Compartment Space	Up to 500 cubic feet (depending on body size & chassis)
Usable Compartment Depth	12" upper, 26" lower
Body Width	98"
Compartment Load Rating	Up to 800 lb each
Body Material	Aluminum standard & 304L stainless steel optional
Body Warranty	10-yr structural



More compartments in a smaller package.

Get legendary PUC™ design flexibility, maneuverability, pump performance, and added compartment space with the added reach of an aerial.

Talk to your local dealer for more information about PUC aerial configurations.



AERIAL PUC SPECS

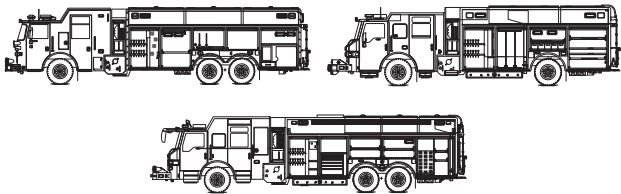
Custom Chassis	Arrow XT™, Enforcer™, Impel® Quantum®, Velocity®
Tank Capacities	Up to 500 gallons / lifetime warranty
Compartment Space	Up to 200 cubic feet (depending on configuration)
Ground Ladder Storage	Various options available
Compartment Load Rating	Up to 500 lb each
Body Material	Aluminum standard, galvalume & 304L stainless steel optional
Body Warranty	10-yr structural



Big storage and pump capabilities.

PUC™ heavy-duty rescues minimize space used for fire suppression to maximize storage options.

- Complete pumper capabilities & 10,000 lb of gear
- Simplified 2-step pump operations & unmatched service access
- Easier to use, service, & maneuver



RESCUE PUC SPECS

Custom Chassis	Arrow XT™, Enforcer™, Impel®, Quantum®, Velocity®
Tank Capacities	Up to 750 gallons
Compartment Space	Up to 1,000 cubic feet (depending on body size)
Usable Compartment Depth	26" full height, 92" in transverse compartments
Body Width	100"
Compartment Load Rating	Up to 1,400 lb each
Body Material	Aluminum standard & 304L stainless steel optional
Body Warranty	15-yr structural



Maximum haul.

Get best-in-class space for equipment while carrying up to 3,000 gallons of water. PUC™ tankers lighten the load while freeing up critical storage.

- Eliminated pumphouse so you can build your apparatus around your needs
- Enclosed pump panel keeps out grime, grit, & moisture
- 1,500 gpm pump weighs 30 percent less than most existing pumps



TANKER PUC SPECS

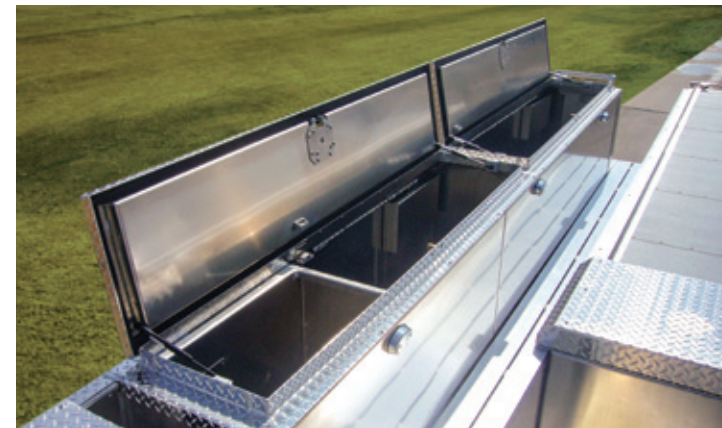
Custom Chassis	Arrow XT™, Enforcer™, Impel®, Quantum®, Velocity®
Tank Capacities	Up to 3,000 gallons / lifetime warranty
Tank Dumps	8", 10", 12" (rear only) Air actuated, electric, manual Round & square
Usable Compartment Depth	12" upper, 26" lower
Body Width	98"
Compartment Load Rating	Up to 800 lb each
Body Material	Aluminum standard
Body Warranty	10-yr structural



Swingout tool boards



Clean compartment interior



Hatch compartments



Chest height ladder storage



Space saver tailboard



Tiltout shelves



Jump-off compartment



Low hose bed

We're giving you space. And then some.

The PUC™ features 26" deep compartments and up to 500 cubic feet of big, clean, uncluttered storage space with covered raceways, recessed shelf tracks, and bright strip lighting that reduces shelving shadows and gives excellent night-time visibility.

PUC also features a long list of options including:

- 500 lb sliding floor trays
- Dividers
- Tiltout shelves
- Swinging tool boards
- Reel mountings
- Numerous other options to fit your needs

You can configure any option with the roomy Pierce® "jump-off" compartment in the front passenger side for EMS, rescue or turnout gear, or whatever you decide to store.

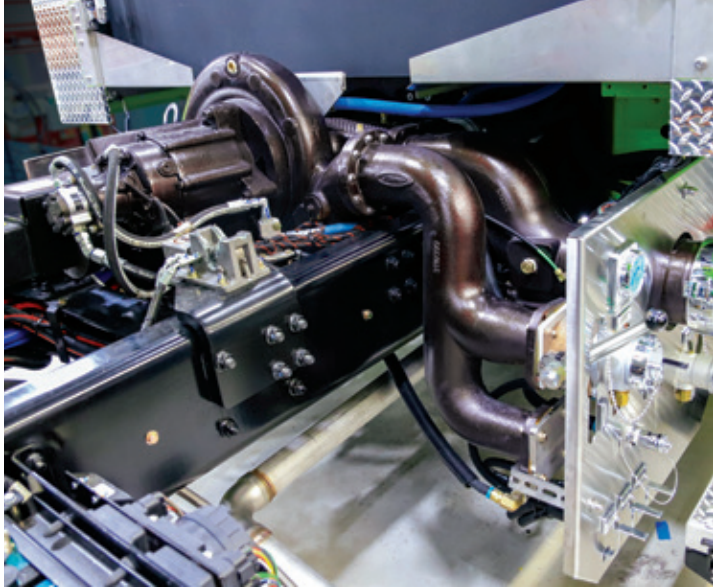
Ergonomic design for safety and service.

Stay safer while being more productive. Everything about the PUC™ is designed to ease the way firefighters climb, ride, drive, carry and store gear, remove hose, and service critical systems.

All service points have been simplified with comprehensive pump and valve access, above frame pump service, automated service and maintenance messages, and direct support from a single-source manufacturer.



Easy plumbing access for service



Pump accessibility

It's easy to go full tilt.

No disassembly time needed.

If down the line you need to rebuild the pump, just simply remove the intake wye and you have complete “above the frame” access to the pump’s wear ring, impeller, shaft, and mechanical seal, which will literally take days out of the rebuild process. And because of the pump position above the frame, there’s no more lying on your back underneath the truck.



Angled folding ladder for a safer climb



Lower crosslay height for easier hose removal



Chest height crosslays



Stokes/backboard storage



45° CRAMP ANGLES

A turn for the better.

PUC™ offers wheelbases as short as 162" (depending on body and chassis). To further improve maneuverability, a fold-up rear work platform is cleverly designed into the tailboard compartment to minimize overall length and improve the angle of departure. Combined with TAK-4® Independent Front Suspension and 45° cramp angles, PUC eases turning like no other.

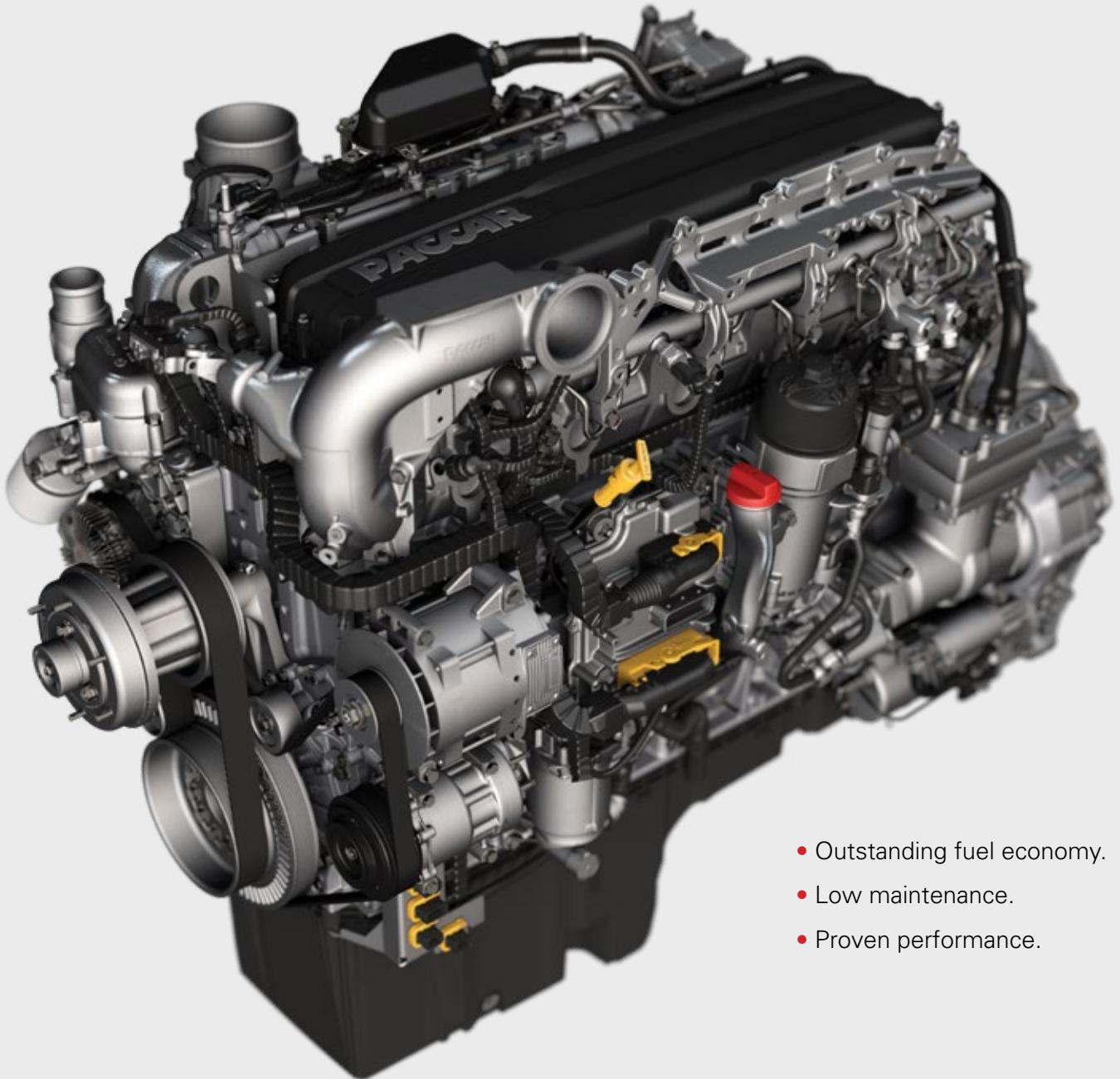


GO THE DISTANCE
BETWEEN CALLS.



PACCAR MX-13

510 HP | 1,850 LB-FT TORQUE | 12.9 LITER



- Outstanding fuel economy.
- Low maintenance.
- Proven performance.

EXCLUSIVE PERFORMANCE
FOR PIERCE® ENFORCER™, VELOCITY®
AND ARROW XT™ CHASSIS.

Two premium brands come together to offer the PACCAR MX-13 big block engine, developed for fire and emergency and available only on Pierce® custom chassis in North America. Manufactured in Columbus, Mississippi, the PACCAR MX-13 engine brings efficiency and flexibility together into one high-performance solution.

PACCAR MX-13



Specifications

Configuration	Inline 6-cylinder
Horsepower	510 hp
Torque	1,850 lb-ft at 1,000 RPM
Displacement	12.9 liters
Dry Weight	2,600 lbs
Bore x Stroke	130 mm x 162 mm
Oil Capacity	42 qt
Rear Engine PTO	Available
Warranty	5-yr / 100,000 miles
Chassis	Enforcer™, Velocity® and Arrow XT™

PACCAR MX-13 KEY FEATURES

- Quiet and smooth operation for exceptional out-of-the-gate performance
- Compacted graphite iron castings provide a lightweight and durable design
- High-pressure common rail fuel injection helps optimize combustion
- Weatherproofed and encapsulated wiring to protect against cable rubs

www.piercemfg.com



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ABOLISH STRUCTURE FIRES, WILDLAND FIRES, AUTOMOBILE, AND SMALL CLASS B SPILLS.

Husky 3 Capacities

Foam Concentrate %	0.3%	0.5%	1%	3%
Husky 3 Water Flow GPM (L/min)	1,000 (3,785)*	600 (2,271)	300 (1,135)	100 (379)

**Maximum flow depends on maximum water pump and plumbing capacities.*



Features

- Single tank system
- The Husky™ 3 is designed to pump any Class A or Class B foam, even high-viscosity, alcohol-resistant Class B foams
- Electric/hydraulic powered; max electrical load is 55 amp
- Single point, direct injection, flow based system using digital technology to indicate pump position and flow meter
- A 3 gpm foam pump provides capacity to handle structure, wildland, & automotive fires, as well as small Class B spills
- The system uses patented flow meter-based technology & is highly accurate over a wide range of pressures from 75 psi to 250 psi
- The system is easy to operate, with just a 1-button operation required to create foam
- Foam percentage is easily adjustable. Class A percentages are adjustable from 0.1% - 0.9%, and Class B are adjustable from 1% - 3%
- 1-button priming cycles the foam pump at a fixed rate, charging the foam system with concentrate
- Auxiliary foam pickup allows use of another foam that is not stored in the foam tank &/or continued foam operation when foam is depleted out of the tank
- Foam tank refill system is standard; the only system on the market to fill the foam tank from the ground as standard

www.piercemfg.com



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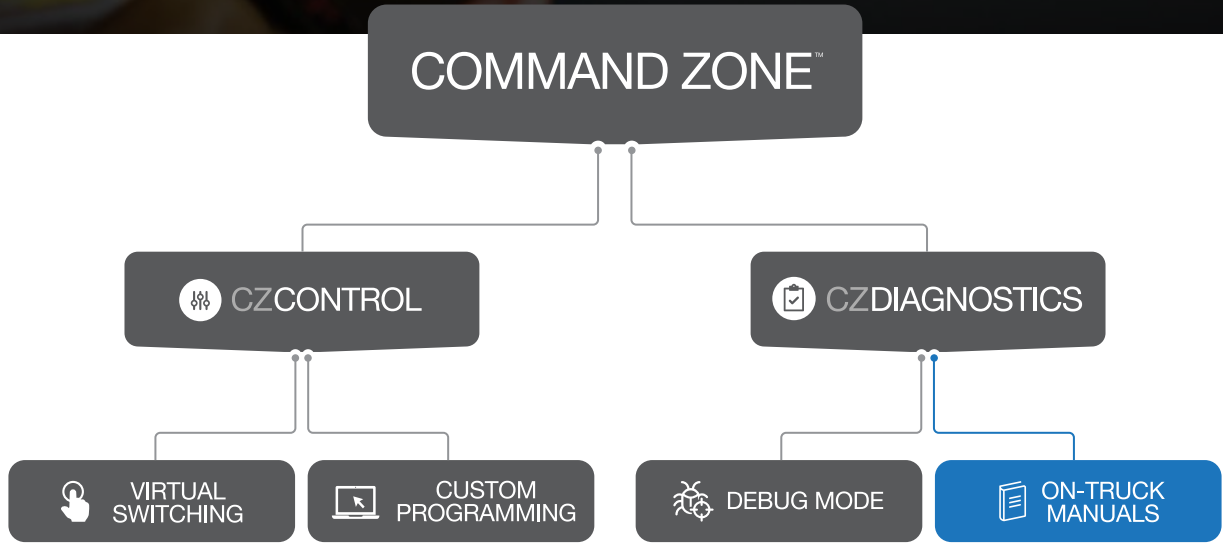


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All other trademarks are the property of their respective owners.



The most reliable, configurable,
usable electrical systems.



It's time to change the conversation. Every modern firefighting apparatus contains elements of multiplexed and hardwired electrical systems. Only Pierce engineers systems that are purpose-built to serve the fire industry with features poised to seamlessly evolve with technology.

No clunky retrofits or complicated third-party software. No troubleshooting your troubleshooting. Utilizing proven military-grade hardware and wire harnesses, Pierce® electrical systems give you technology built from the ground up for your department. If you have questions, you speak directly to the people who engineered your system, who just so happen to have lunch with the people who welded your frame rails.

One source. One intuitive, singular system. Available in feature packages that provide your desired level of interface, diagnostics, prognostics, maintenance, navigation, and more.

FEATURE PACKAGE	FOUNDATION	CZ WIFI	CZ TOUCHSCREEN	FULL COMMAND ZONE
Saber®	S	O	O	
Enforcer™	S	O	O	O
Arrow XT™	S	O*	O*	O
Impel®	S	S	O	S
Velocity®	S	S	S	S
Quantum®	S	S	S	S

*Features only available with Full Command Zone package

S = StandardO = Optional

At-a-glance chassis/system availability of feature packages



FEATURE PACKAGES

FOUNDATION

Every Pierce® custom chassis comes standard with:

- Electrical distribution centers located strategically throughout the vehicle
- Serviceable electrical components readily accessible
- Power/signal protection & control components protected against corrosion, heat, vibration, physical damage, & water spray
- Distribution centers that contain battery power & ground studs for ease of customer supplied component installation
- Wiring run in conduit or loom where exposed; wire raceways built into cab structure
- IP67 waterproof connectors specified throughout the chassis

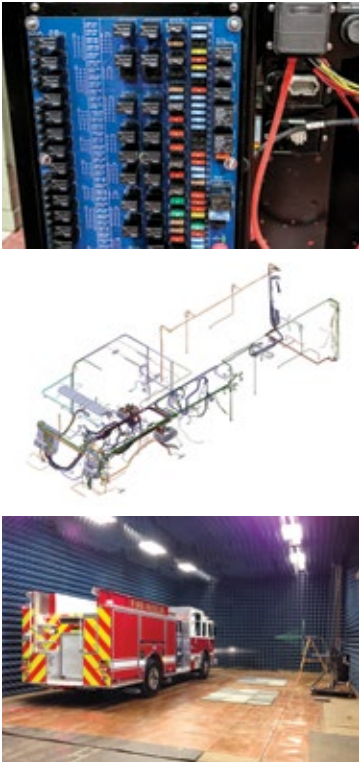
SABER *ENFORCER*ARROW XT*IMPEL*VELOCITY*QUANTUM*

Component Specification

- Circuit breakers that conform to SAE J1553, J258, J554, J1284, J1888, J2077 standards
- Wire, relays, & solenoids sized to 125% of maximum current
- Wire harnesses that conform to SAE, NFPA, NEC, UL, ASTM, & WHMA standards
- Wire harnesses that include color, function, & number coding; function & circuit number stamped at 2" intervals.
- Wire insulation is high temperature crosslink

Validation

- Voluntary third party (UL) auditing for electrical compliance to NFPA 1901
- Third party EMI/RFI chamber testing to ensure emissions are suppressed at the component source
- R&D cycle testing of new components



CZ TOUCHSCREEN

A higher level of on-board interaction, including all the features of the Foundation and CZ WiFi packages plus these touchscreen specific features:

- Active or historic faults with text descriptions & real time J1939 data bus information available at your fingertips (gloved or not)
- Prognostics alerts for maintenance intervals
- Auto day/night display backlighting mode
- Administrator setup features accessed through a configurable password security level
- Opportunity to integrate seat belt monitoring, tire pressure monitoring, pump gauges, navigation, & camera images in one touchscreen display
- Primary Screens: Transit Gauges, Scene Gauges, Notifications/Faults, Diagnostics, Prognostics, Timer/Clock/Date/Ambient Temperature, OneTouch Camera Selection

SABER *ENFORCER*ARROW XT*IMPEL*VELOCITY*QUANTUM*

Hardware

- 7" color resistive touchscreen
- Telematics Control Unit (TCU)
- Control module
- Roof mounted WiFi/GPS antenna

CZCONTROL

- Heat, defrost, & air conditioning control from touchscreen & WiFi enabled device (not available on Quantum)

CZDIAGNOSTICS

- Truck-specific electronic manuals stored on vehicle and accessed through your WiFi enabled device

Optional Integration Packages

- Bendix SmartTire tire pressure monitoring
- Camera Systems
- Ascendant® Setup Determination
- Wabco Collision Mitigation



CZ WIFI

For those interested in using a WiFi enabled device to interface with their apparatus. This package includes the features of the Foundation package with the ability to:

- Connect up to five WiFi enabled devices within 300' of the vehicle
- Review active or historic faults with both text descriptions & SPN/FMI numbers
- View real time data transmitted on the driveline J1939 data bus
- Receive prognostics alerts for maintenance intervals
- View seat belt status

SABER *ENFORCER*ARROW XT*IMPEL*VELOCITY*QUANTUM*

Hardware

- Telematics Control Unit (TCU)
- Control module
- Roof mounted WiFi/GPS antenna

Connectivity

- Uses the vehicle's local WiFi network & embedded web page to display vehicle information
- Auto connects to station WiFi network to upload truck data (no app or subscription required)

CZCONTROL

- Heat, defrost, & air conditioning control from touchscreen & WiFi enabled device (not available on Quantum)

CZDIAGNOSTICS

- Truck-specific electronic manuals stored on vehicle and accessed through your WiFi enabled device

Optional Integration Packages

- Bendix SmartTire tire pressure monitoring



FULL COMMAND ZONE

The highest level of Command Zone™ interface, control, diagnostic, & prognostic capability. Includes all the features of the Foundation, CZ WiFi, and CZ Touchscreen packages plus:

- Full complement of D-Series Command Zone solid state input/output modules (optional diagnostic LEDs integrated into each module)
- Strategically located modules throughout apparatus reduces wire harness bulk
- Command Zone debug diagnostics available on the touchscreen and WiFi enabled device (password protected ability to force inputs & outputs on to aid troubleshooting)
- Virtual switch panels allowing control from the touchscreen & WiFi enabled device
- Virtual switch panel configuration through administrator setup menu
- Dynamic or static Graphical Do Not Move Truck screen

SABERENFORCER*ARROW XT*IMPEL*VELOCITY*QUANTUM*

Hardware

- D-Series power, input, & output modules
- 7" color resistive touchscreen
- Telematics Control Unit (TCU)
- Control module
- Roof mounted WiFi/GPS antenna

CZCONTROL

- Heat, defrost, & air conditioning control from touchscreen & WiFi enabled device (not available on Quantum)
- Virtual switch panels on display & WiFi enabled devices
- Truck-specific I/O configuration

CZDIAGNOSTICS

- Visual Do Not Move Truck indication
- Command Zone I/O debug mode
- Load manager status
- Pump & throttle interlock status
- Truck-specific electronic manuals stored on vehicle

Optional Integration Packages

- Bendix SmartTire tire pressure monitoring
- Camera Systems
- Ascendant Setup Determination
- Wabco Collision Mitigation



OPTIONAL INTEGRATION FEATURES

ASCENDANT®

Setup determination & aerial information on chassis touchscreen.

**Only available with the CZ Touchscreen or Full Command Zone packages.*

SABER	ENFORCER	ARROW XT	IMPEL	VELOCITY	QUANTUM
Understand if the vehicle is properly placed to use the aerial prior to leaving the cab					
					

TIRE PRESSURE MONITORING

Bendix SmartTire system monitors each tire's pressure & temperature.

SABER	ENFORCER	ARROW XT	IMPEL	VELOCITY	QUANTUM
3 Alert Levels - Critical Low Pressure - Pressure Deviation - High Temperature					
					

COLLISION MITIGATION

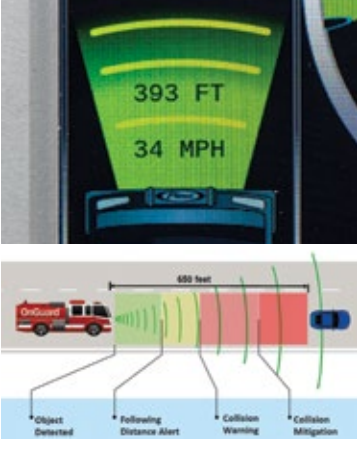
Detects objects up to 650' away and in adjacent lanes.

Audible & visual driver alerts for potential rear-end collisions.

Application of service brake up to 50% in event of impending collision.

Audible & visual driver alerts for potential stationary object collision.

**Only available with the CZ Touchscreen or Full Command Zone packages.*

SABER	ENFORCER	ARROW XT	IMPEL	VELOCITY	QUANTUM
Meritor Wabco OnGuard™ far-range & near range, self aligning radar sensor collision mitigation system					
					

AERIAL STABILIZER CAMERAS

Provides a top down view of where the aerial stabilizers will be planted.

**Only available with the CZ Touchscreen or Full Command Zone packages.*

SABER	ENFORCER	ARROW XT	IMPEL	VELOCITY	QUANTUM
Outline of extended stabilizers overlaid on camera image					
					





Carcinogen Awareness
and Reduction to Exposure

Protection is an action that goes beyond the fire and the truck.

Pierce partnered with the Firefighter Cancer Support Network and developed the CARE™ initiative. The program is designed to raise awareness about how damaging carcinogens are to firefighters. Taking precautions can lessen their chances of being diagnosed with cancer in the future.

What is a clean cab?

A clean cab contains options that reduce firefighters' exposure to carcinogens. Not only does it apply to the cab interior, but also to other options on the exterior. There are numerous options to consider when designing an apparatus.

What Pierce is doing:

- Sustaining the partnership with the Fire Cancer Support Network
- Decontamination buckets provided on 1,500 apparatus
- 250+ sales reps nationwide trained by members of the Florida Firefighter Safety & Health Collaborative on "Clean Cab Initiatives"
- Continually adding apparatus options to keep firefighters safe



What the Firefighter Cancer Support Network is doing:

- Providing assistance to firefighters who have been diagnosed with cancer
- Offering mentoring support by cancer survivors in the fire industry
- Providing occupational cancer awareness and prevention training to thousands of firefighters across the nation
- Connecting to local resources

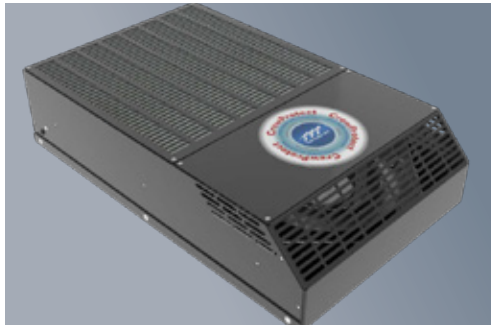
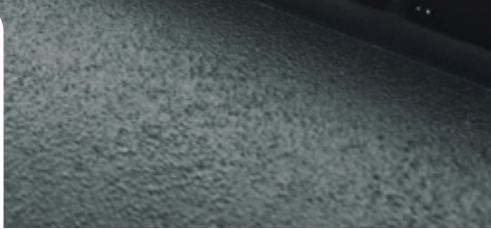


Stay clean and safe.

Keeping contaminants out of the cab creates a safer environment for firefighters. There are a variety of options that make it easier to disinfect the cab. Air filtration systems are also available to lessen the harmful chemicals in the air. The list of options is evolving as the industry continues to learn what can be done to keep firefighters safe.

There are two main objectives that departments look to obtain with their clean cab environment:

- Choosing surfaces that are easy to clean
- Keeping the air clean



Cab air filtration with CrewProtect.

The CrewProtect system filters the air in the cab every 3.5 minutes, which exceeds the air exchange rate of operating rooms in hospitals.

It purifies the air by removing particulates and VOCs - the two greatest contributors to firefighter cancer. It also removes aerosols that carry viruses and bacteria.

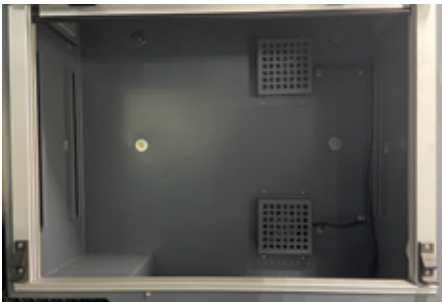
It is available on all Pierce custom chassis.



HVAC filtration.

The heating, ventilation, and air conditioning (HVAC) system can be modified to filter carcinogens from the cab.

HEPA filters are standard on the Enforcer™, Impel®, Saber® and Velocity® cabs.



Cabinet vents & fans.

Cabinet seals keep contaminated air from entering the cab.

In addition, fans (pictured here) can be added in EMS cabinets to create a pressure vacuum that vents outside the cab, keeping contaminated air away from the cab occupants.



Vinyl interior.

Smooth vinyl surfaces trap less dirt and contaminants and are easier to clean than cloth.

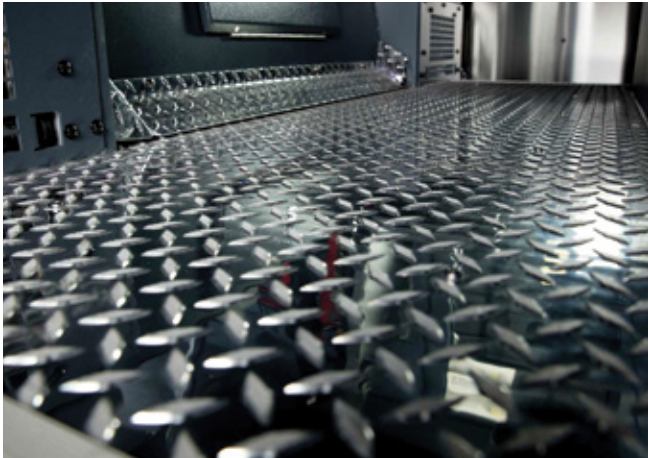
The seats, headliner, walls, engine tunnel cover, and HVAC drain tubs can be covered in vinyl.



Painted surfaces.

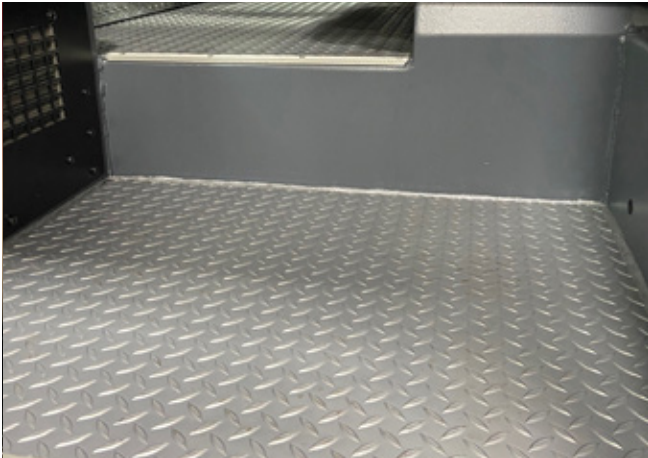
Cab interior surfaces can be painted, making them easier to clean.

The headliner, walls, engine tunnel cover, and HVAC drain tubs can be painted.



Aluminum treadplate floor.

Treadplate flooring does not absorb carcinogens or dirt and is easy to clean.



LonSeal flooring.

LonSeal flooring is a durable, vinyl material that is easy to clean. It comes in a variety of patterns and colors.



Consider moving SCBAs out of the cab.

A fundamental element of the CARE™ initiative is reducing carcinogen exposure. Removing SCBA brackets from the cab decreases the amount of carcinogens in the cab, and there are numerous alternate storage options to consider.



Fender compartment.

SCBA tanks can be stored in fender compartments.



Tilt-out tray.

Trays can be specifically designed to house SCBA tanks. The tilt-out option makes them easier to access.



Cab extension.

Compartments can be designed behind the cab to save room in the body and can store an SCBA bottle and other miscellaneous gear on both sides.



Pull-out tool board.

A pull-out tool board can be specifically designed to house SCBAs or turnout gear. Firefighters can put the SCBA on directly from the tool board.



EMS cabinet.

SCBA tanks can be stored in EMS compartments, which can be designed to be accessed from the exterior only.



Body compartment.

SCBAs can be stored on brackets mounted in body compartments. The brackets can be moved side to side, based on storage needs.



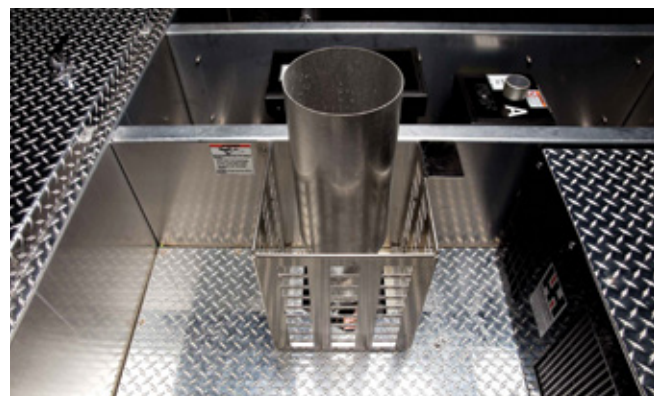
It all starts at the scene.

At fire scenes, firefighters are exposed to harmful chemicals, ranging from vehicle exhaust to carcinogens from the fire.

Vertical exhaust.

Traditional exhaust systems are routed to the underside of the truck, which results in pump operators breathing in harmful fumes. Changing to vertical exhaust moves the exhaust farther away from the firefighter.

Each vertical exhaust system is engineered based on the truck specifications. Apparatus with PUC™ pumps are routed through the top of the truck while traditional configurations are routed up the side of the pump house.



Shown on a PUC™ configuration.



Shown with a traditional pump house configuration.

Keep the cab carcinogen-free.

Keeping dirty gear out of the cab greatly reduces carcinogen exposure. Departments have the option to store their gear somewhere other than the cab after working a fire scene. Storage options continue to evolve as departments get creative with apparatus compartmentation, which range from hatch to transverse compartments and pullout trays.



Hatch compartment.

Departments can allocate space in hatch compartments for dirty gear. Gear can be stored in various compartments on the apparatus.



Quickly clean your gear.

Keeping dirty gear out of the cab is not the only way firefighters can combat carcinogen exposure. Departments can choose apparatus options that allow them to clean their gear and themselves at the scene. There are a variety of options that are currently available at Pierce.



Use the Command Zone™ System to maintain your vehicle.

The Command Zone Advanced Electronics System can be programmed for filter changes and cleaning cab/compartment reminders. This adds another layer of protection that allows for ease of maintenance and piece of mind that the vehicle will continue to run at an optimal level.



Water rinse outlet.

This outlet provides low pressure water on scene to rinse off after the call. The system has its own water tank with a low level sensor so the pump does not burn out.

Tank heaters are available to provide warm water on scene.



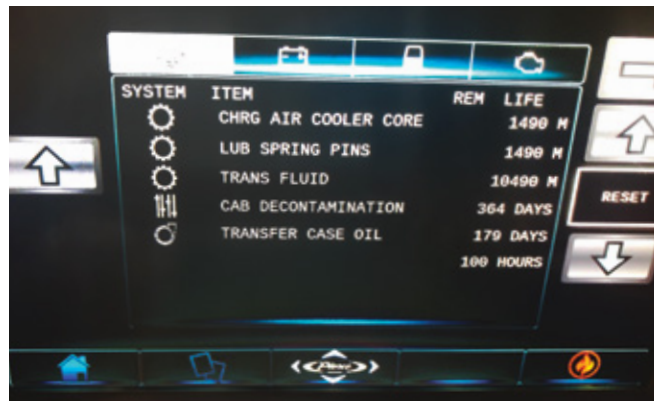
Shower head outlet.

The shower head outlet is fed from the water pump and provides a pressure protection valve to keep the pressure low.



Garden hose outlet.

The garden hose outlet is gravity fed from the water tank or water pump to rinse off on scene.





Proven to outperform and outlast.

No manufacturer offers a more robust range of proprietary finishing solutions. Get severe-duty Corrosion Protection, Top Coat, Welding, Fabrication and Assembly from one of the most expansive and exacting facilities in America.

DURABLE, CONSISTENT PROTECTION.

Oshkosh's electrocoating (E-Coat) immersion process provides coverage of complex parts and a uniform thickness without runs or drips. E-Coat delivers a superior corrosion and chemical resistance, while maintaining a high-quality, resilient surface for paint of any color or finish.

The 150,000 square foot facility is home to one of the country's largest Programmable Hoist Systems (PHS), as well as a state-of-the-art indexing system, which allows processing of parts of virtually all shapes and sizes.

In addition to advanced systems and rigorous quality assurance processes, Oshkosh corrosion protection leverages expertise from Oshkosh's proven experience serving the Department of Defense. Economic and efficient corrosion protection provides durable resistance from the most severe conditions.

Program Benefits

- High-performing cathodic epoxy coatings are paired with zinc-phosphate pre-treatment
- Final coatings provide superior salt spray, humidity and cyclic corrosion resistance
- PHS tank sizes: 36 ft. length, 3.5 ft. width and 8 ft. depth; maximum weight capacity of 5,000 lbs.
- Indexing system capabilities: 8 ft. length, 10 ft. width and 8 ft. depth; maximum part weight capacity of 2,500 lbs.
- Immersion process offers uniform coverage and thickness of complex parts
- Accredited laboratory for performance testing and certification of the overall coating process
- Process application range: military, maritime, agriculture & construction, automotive parts & accessories, heavy duty trucks, mining, recreation, electrical equipment
- Specifications including but not limited to: TT-C-490E, Mil-DTL-53084
- Substrates including but not limited to: armor, steel, aluminum (commercial applications), iron alloys, galvanized



"E-Coat offers a superior corrosion and chemical resistance when compared to conventional priming and painting methods. We chose to E-Coat our frame rails and liners because of its proven corrosion protection, its durability and versatility."

Pierce® Quantum® Pumper

Jim Johnson
President | Pierce Manufacturing

Film Technical Properties

PROPERTY	TEST METHOD	PERFORMANCE
Color	–	Black
Film Thickness	–	0.5 - 1.5 Mils
Gloss - 60 Degree	ASTM D523	65 - 85
Pencil Hardness	ASTM D3363	2H Minimum
Direct Impact	ASTM D2794	100 in. - lbs. Minimum
Reverse Impact	ASTM D2794	60 in. - lbs. Minimum
Crosshatch Adhesion	ASTM D3359	4B - 5B
Humidity	ASTM D1735	1000 Hours Minimum
Water Immersion	ASTM D870	250 Hours Minimum
Gravelometer	GM9508P	6 Minimum
Throwpower	GM9535P	12 - 15 in.

Cold rolled steel lab panels, Zinc Phosphate pretreatment, 0.6 mils average film thickness, cured 20 minutes @ 350°F.

PROPERTY	SUBSTRATE PRETREATMENT	SALT SPRAY* 1000 HOURS
Corrosion Resistance	CRS / Zinc Phos / Non-Chrome	1 - 2 mm

*Salt Spray - ASTM B117, cold rolled steel lab panels cured 20 minutes @ 350°F. (Average Total Scribe Creep)



Pierce Manufacturing Inc.,
P.O. Box 2017
Appleton WI 54912-2017 USA



Oshkosh Corporation
P.O. Box 2566
Oshkosh WI 54903-2566 USA

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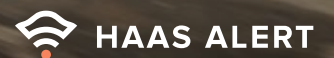
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P-0099-CORROSIONPROTSS 12/16

COLLISION MITIGATION

by HAAS Alert



PROTECTING PUBLIC SAFETY BY INCREASING OVERALL AWARENESS.

When firefighters are most focused, motorists are most distracted. Pierce has partnered with HAAS Alert to provide automated, real-time collision avoidance two ways:

- 1. Responder to Vehicle (R2V) protection is standard on Pierce® custom chassis. Digital alerts ping civilian traffic. R2V is provided at no additional cost and includes a 5-year subscription.
- 2. Responder to Responder (R2R) protection is an upgrade to any fire apparatus. A-pillar LED lights alert driver to approaching emergency response vehicle.



R2V – Vehicle infotainment screen



R2V – Waze mobile app alert



R2R – A-pillar lights

Specifications

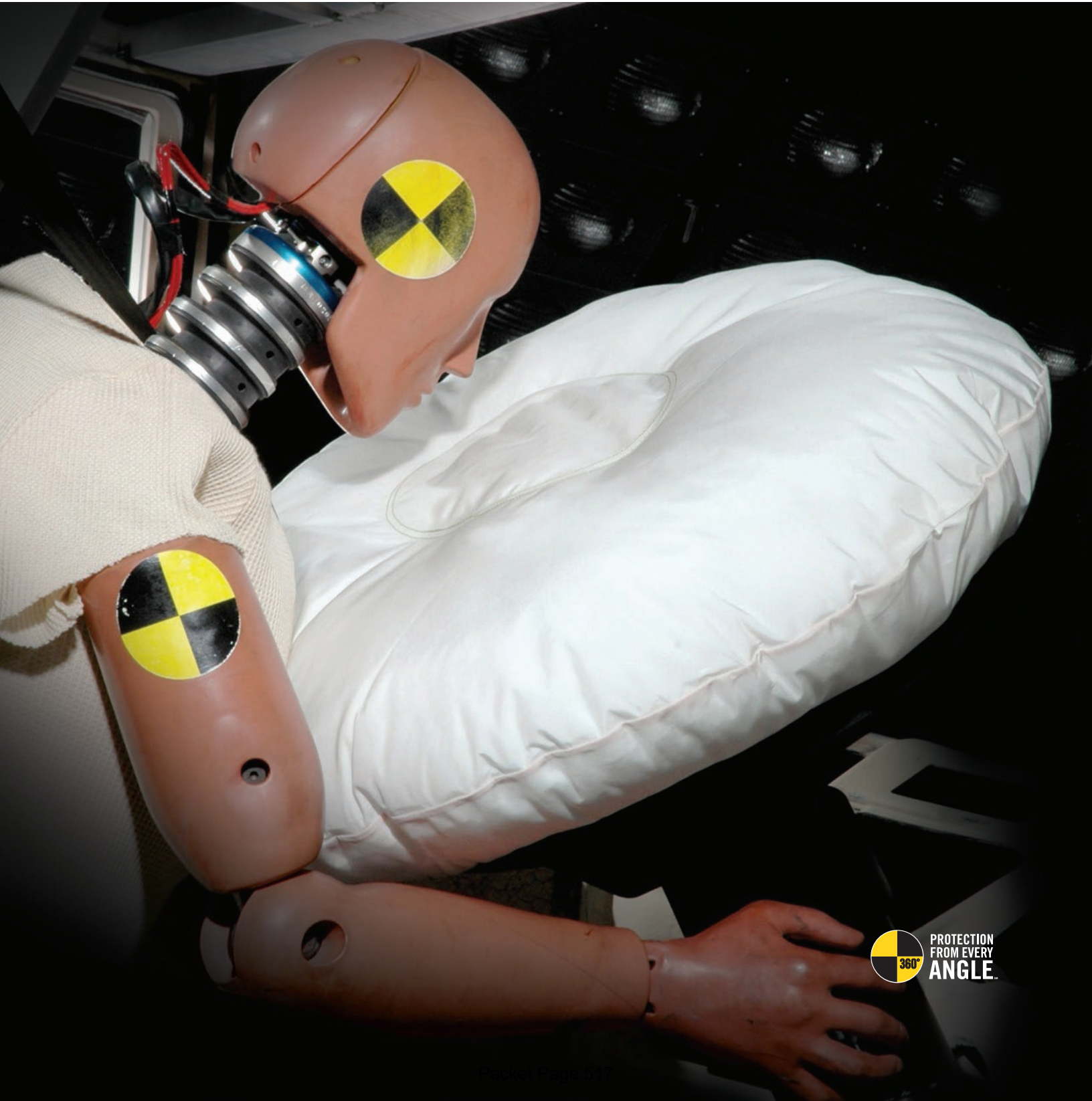
Hardware	HA-5 Collision Mitigation Transponder: Retrofittable & easy to install, requiring only power with a ground connection & a connection to the e-master
R2V	Visual & audio digital alerts transmit via Waze mobile app or vehicle infotainment screen; 2 alerts are sent to motorists when approaching an emergency scene & timed in accordance to the vehicle speed
R2R	Blinking red LED lights installed on the A-pillars of the cab alert the driver engineer of an approaching emergency vehicle – HAAS Alert must be installed on both responding vehicles to receive alerts
Safety Cloud	Streams vital safety information while broadcasting real-time digital alerts; motorists receive alerts 10-15 seconds prior to approaching responders
Real-Time Data	Access the live dashboard on any device with a web browser; view department performance stats such as total number of drivers alerted, total incidents, average time on scene, total runs, total responding time, & average time to scene
Retrofit Kits	Install HAAS Alert on any emergency vehicle
Warranty	1-yr

www.piercemfg.com



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YOU'RE ALWAYS LOOKING OUT FOR OTHERS.
FORTUNATELY, SOMEBODY'S LOOKING OUT FOR YOU.

AT PIERCE, WE DON'T JUST MEET SAFETY REQUIREMENTS.
WE SET SAFETY STANDARDS. WE OFFER NOTHING LESS
THAN 360° PROTECTION FROM EVERY ANGLESM.

BECAUSE THAT'S WHAT'S EXPECTED OF THOSE WE SERVE.



Coverage starts with the chassis.

Pierce® chassis are researched, engineered, tested, and built with industry-leading safety features and equipment. Some of these innovations are apparent while others are invisible, but all are essential.

From bright exterior lighting to latching interior storage spaces and a mission-critical electrical system on Command Zone™ equipped trucks, Pierce fire trucks provide the safety to match their performance. Below are just some of the ways we ensure 360° of protection.

- Side roll protection system.
- Frontal air bags.
- TAK-4® Independent Suspension systems.
- Seat belt warning system ensures occupants are properly buckled.
- Collision avoidance system warns before accidents can occur.
- Lateral g-roll indicator alerts driver to excessive chassis roll.
- Interior dome lights enhance nighttime visibility.
- 13 3/8" frame rails reduce frame beaming & improve ride stability.
- Electronic Stability Control (ESC).
- Ready reach seatbelts make buckling up one-handed & hassle-free.
- Noise insulation & soundproofing provide a quieter interior environment.
- Tinted windows reduce solar load.
- Roll Stability Control (RSC) auto braking system helps prevent side rolls.
- Tire protection system including tire monitoring & tire blowout band protection.
- Camera vision systems display obstacles clearly.
- PS6® & PSV® seats enhance comfort & safety.





Frontal air bags.

We're never satisfied when it comes to occupant safety in Pierce apparatus. The logical evolution in 360° protection was the offering of frontal air bags – an industry first in custom chassis.



Side roll protection system.

We've thought of all passengers. Our side roll protection system design was tested not simply for an average occupant but with crash dummies ranging from 5th percentile females to 95th percentile males. The evolution of our PS6® or PSV® seats allow for side roll air curtains to be fully integrated into the seating system rather than deploying from the wall, another first in the industry.

And we've thought of possibilities which may never occur to you, unless you've been in a side roll yourself. A combination of high-pressure stored Argon and Helium is released into the airbag cushion when the small, pyrotechnic initiator receives a trigger signal from the crash sensor. Since the gas temperature is relatively low (below 180°F) and the cushion is non-vented (sealed), there is no risk of severe burns to the occupants.

360° Protection From Every AngleSM starts with minimizing the risks of 90° side rolls. But it doesn't end there. Side Roll Protection is default on Pierce's custom chassis.

First to bring the most important test to market.



Every Pierce cab model is crash-tested to meet or exceed ECE requirements at the Center for Advanced Product Evaluation (CAPE), a division of IMMI.

CAPE's vehicle barrier crash testing facility has no equal, featuring a test lab, dynamic test sleds, static pull chamber, computer screen crash simulation capabilities, and the world's only 90° rollover impact test machine.

How rigorous is our testing? In addition to standard requirements, the Pierce® Quantum® passed a side strike test that wasn't mandated to meet the ECE 29 standard. Our Velocity® and Impel® chassis passed twice the ECE 29 level of energy for frontal impact testing. And the Dash® CF exceeded requirements by passing an additional roof crush at 5.4 times the ECE standards.



Electronic Stability Control.

An automatic safety management braking system, Electronic Stability Control (ESC) enhances the directional and roll stability of fire apparatus during evasive maneuvers.

- Monitors lateral acceleration (cornering) of the vehicle & activates when the critical roll threshold is met.
- Automatically reduces engine RPMs, applies engine retarder (if so equipped), & selectively applies brakes to individual wheel ends of the front & rear axles to assist in bringing the vehicle back to its intended direction.
- Reduces the possibility of the vehicle rolling on its side.
- Monitors directional stability through sensors & compares the actual direction of the vehicle versus the direction you travel.
- Reduces the possibility of spinouts or driftouts, even in poor traction conditions.





The suspension that raises standards: TAK-4® Independent Suspension Systems.

Pierce was the first custom fire truck manufacturer in North America to offer proprietary independent front suspension. TAK-4® Independent Front Suspension offers a 45° cramp angle, delivering a tighter turning radius, better handling, and more vehicle control.

It shortens stopping distance by up to 23%, improves ride quality by 340%, increases load-carrying capacity, improves durability, and simplifies maintenance. With the torsion bar lock system, vehicle lean can be adjusted within 15 minutes.

Pierce also offers TAK-4® Independent Rear Suspension as well as TAK-4® T3, which combines the advantages of independent rear suspension with a 100% mechanical rear steering system for enhanced maneuverability.

NFPA 1901 UL certification plus UL Canada (ULC) certification.



Pierce is the first fire apparatus manufacturer to be both 3rd party certified to the latest NFPA 1901 edition and ULC Canada ULC-S515 standards by Underwriters Laboratories. Stages of testing include road, pump, weight, brake, performance, and aerial application. All products must pass all tests before a truck is released into Canada. This commitment to quality applies to trucks sold in the U.S. as well.

Information at your fingertips: Command Zone™ advanced electronics.

Better information means better decisions. The Command Zone™ system delivers full diagnostic and industry-first prognostic capabilities through the only purpose-built-for-fire-apparatus interface.

Connect up to five WiFi enabled devices. Review active and historic faults with text descriptions through a touchscreen sensitive enough for gloved hands. Check real time data transmission and receive auto alerts for maintenance intervals.

Seat belt status. Virtual switch panels. Do Not Move Truck notifications. An entire suite of navigation, monitoring, and mitigation options. Command Zone is the easiest, most integrated, and robust link to optimal vehicle performance.



Bonded, curved windshield.

With no center post obstruction, the single-piece windshield opens sight lines and reduces risk of accidents with clear views of the road, pedestrians, and traffic. Available on Impel®, Velocity®, Saber®, Enforcer,™ and Dash® CF custom chassis.



Forward-mounted one-eleven mirrors on Velocity® and Impel®.

Pierce's exclusive one-eleven mirrors make these chassis the only custom OEM fire trucks to meet FMVSS-111 visibility standards for school buses. They minimize body and head movements of the driver, and ensure the officer's position does not interfere with passenger side mirror visibility. This positioning provides visibility to the front bumper as well as along the sides of the body, and narrows overall width of the vehicle by as much as 8".



Roll-up hosebed cover.

Add safety and space with the Pierce® roll-up hosebed cover. It rolls forward, out of the way of the hosebed, for easier hose loading at the top of the truck. The solid cover protects the hose from all elements, and also provides an NFPA-compliant walking surface above the hose. The roll-up hosebed cover does not add to overall height as most aluminum covers do when opened.



Hands-free SCBA bracket.

Designed for walk-away use, the Pierce® hands-free SCBA bracket is simpler, quicker, and safer. Inertia locks the bottle in place without the use of straps or levers. The bottle is released quickly and easily when you pull it from the holder. Resistant up to 30G, the bracket provides extra safety and security. The hands-free SCBA bracket can be retrofitted into many existing seats.

SCBA bracket designed in conjunction with IMMI.



Automatic folding steps.

Pierce air-actuated steps fold out automatically when the door is opened. A large first step is provided as low as 16" from the ground. This makes cab exit and entry easier and safer, especially when suited up and carrying gear.

The large-area step height is a consistent 16". And since the steps fold away automatically when the doors close, they stay clear of ice, snow, and mud.

Available on Quantum®, Velocity®, and Impel® chassis.

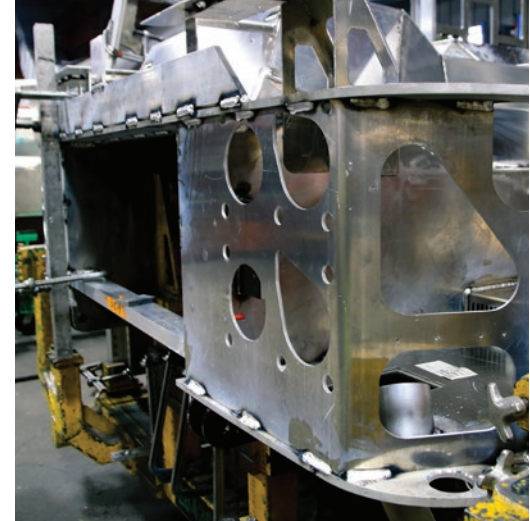


VLH® caps.

Even the smallest of features, like our VLH® caps, add an extra layer of safety for firefighters. When working with pressurized lines, VLH caps reduce risk of injuries caused by the inadvertent release of lines containing trapped residual pressure.

The thickest firewall in the industry.

It starts with .25" aluminum welded to a .5" thick engine tunnel that is tied to the doorposts with a .5" thick semi-crosscar support, providing a rigid front that holds the cab together. This offers greater occupant protection in the event of a frontal crash plus greater shroud protection should an engine mishap occur.



Tire protection system.

The Pierce® Tire Pressure Management System uses sensors to monitor tire pressure and temperature, and display them in the cab unit. Proper tire inflation reduces maintenance downtime, fuel costs, tire and tread wear, tire blowouts, tread separation, tandem axle tire wear, and heat-related tire problems.

Exclusive to Pierce in the fire industry, the Tire Blowout Protection Band features a safety band attached to a recessed drop inside the wheel. This prevents the tire from coming off the wheel during a blowout and assists the driver in maneuvering and slowing down in a safe manner.



Pierce exclusive seats.

The first custom-designed, safer, and noticeably more comfortable seats in the industry, featuring built-in side roll protection.

PS6® and PSV® seats feature double-length seat belts and dual retractors that can be pulled quickly and comfortably over a firefighter in full turnout gear. The seats can also be retrofitted into many existing chassis.

- Side roll protection.
- Dual seat belt retractors & double-length seat belts.
- Hands-free SCBA holders.
- Lumbar support.
- 7.5° (PS6) & 5° (PSV) angles of recline.
- 17" cushion (front to back).





Minimizing exposure risk.

The most customizable chassis on the planet give you the most options to tailor a minimum exposure fleet. Easily cleanable seat surfaces. Exhaust options. Decon outlets. Alternative SCBA storage. High-impact HVAC filtration for reduced particle circulation. Warm water rinse outlets. Or customized Command Zone™ messaging tailored to your department's cleaning procedures.



Protection is an action that goes beyond the fire and the truck.

There's a crossover between protecting communities and protecting firefighters, and that overlap is exactly where the CARE initiative lives.

CARE (Carcinogen Awareness & Reduction to Exposure) is a pioneering partnership between Pierce Manufacturing and the Firefighter Cancer Support Network.

Through constant product development, training, education, and fundraising, we will raise the awareness and resources necessary to protect firefighters and their families from carcinogen exposure.



Gross on-scene decon bucket.

On-scene decon can reduce exposure to carcinogens by as much as 85%. Starting summer of 2018, Pierce will equip the first 1,500 apparatus shipped with a gross decon bucket. These kits will include carcinogen education and protective measures provided by Sylvester Cancer Center, Florida Firefighters Health and Safety Alliance, and Firefighter Cancer Support Network.



Cab interior surfaces.

Your most important assets are riding inside the cab. Pierce uses brighter, smoother materials on seats, engine tunnels, interior walls, and flooring to ensure easier, thorough and more frequent cab cleaning.

Attention to cab interior surfaces reduces the absorption of toxins as well as the amount of soot particles left behind.



Vertical exhaust.

Diesel exhaust is classified by the International Agency for Research on Cancer (IARC) as carcinogenic to humans.

Vertical exhaust systems route dangerous engine emissions away from the pump operator to greatly reduce the risk of long-term, low-dosage exposure.



Warm water rinse station.

A dedicated on board tank provides warm, fresh, on-demand water. This integrated hand wash station provides immediate on-scene cleaning after exposure to soot particles and other carcinogens.



www.piercemfg.com



Pierce Manufacturing Inc., An Oshkosh Corporation Company
P.O. Box 2017, Appleton WI 54912-2017 USA

Specifications, descriptions, and illustrative material in this literature are as accurate as known at the time of publication, but are subject to change without notice. Illustrations may include optional equipment and accessories and may not include all standard equipment. All measurements are nominal values.

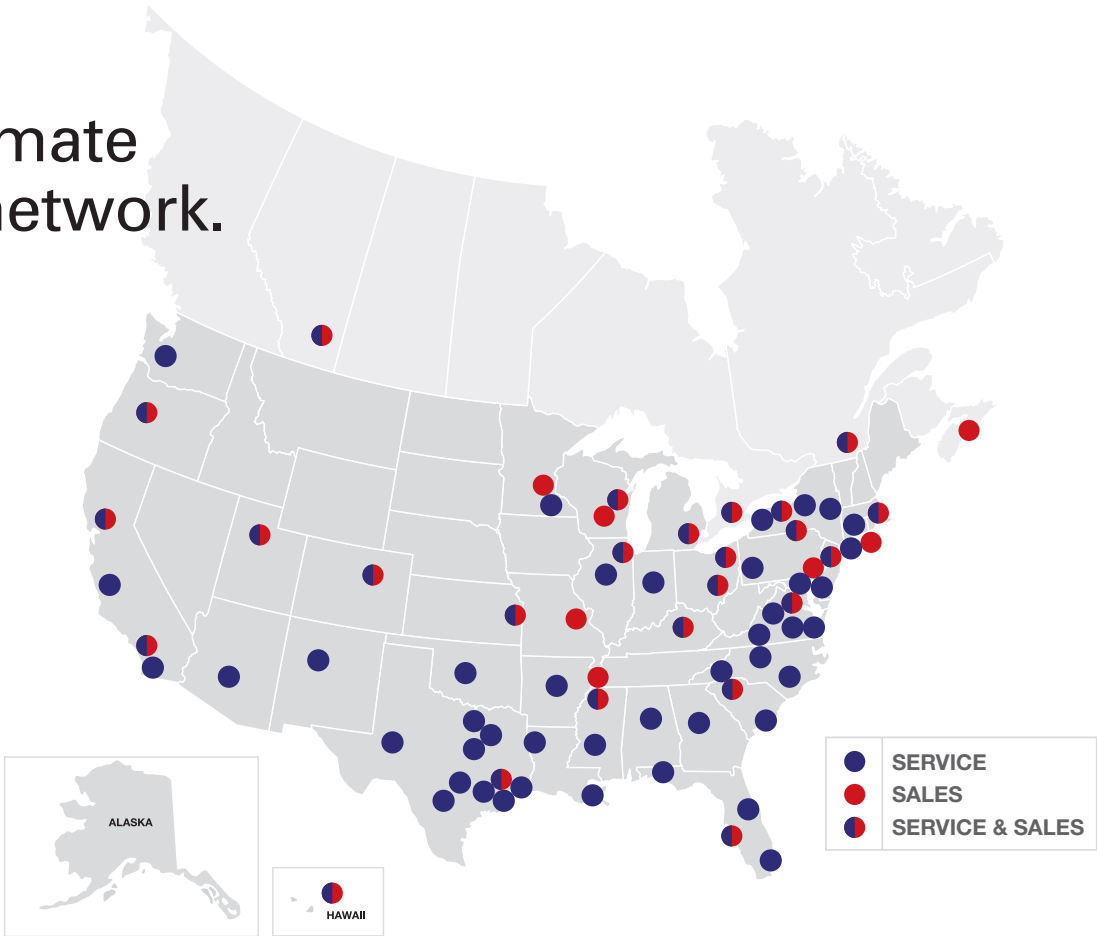
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P-0129-SAFSYSBR 4/18



The ultimate dealer network.



Pierce dealers are your single-source experts for parts, training, warranties and aftermarket service. No other fire apparatus manufacturer on the planet has a stronger, more committed dealer sales and support network.

Find the dealer near you at piercemfg.com

Dealership performance

- 24/7 warranty assistance
- Chassis preventive maintenance
- Coach repairs: Fabrication, assembly and paint
- Communication system upgrades
- Vehicle body remounts and reconditions
- Mobile service unit fleet comes to you
- Maintenance and operational training



Master Technicians.

Every. Working. Detail. Mastered. Our certified technicians know the intricacies of every last aerial, chassis, electrical and pumper component. Hundreds of Master Technicians are standing by to help you train, troubleshoot and maintain any way you need. Via Skype. On the phone. Through e-mail. At your facility or ours.

Factory Direct Training

Choose a topic below, or customize your class.

- Electrical systems
- Steering and suspension
- Pump and foam systems
- Aerial devices
- Preventive maintenance

Regional Training Locations

Come to an area below, or we will come to you.

- Appleton, WI
- Bradenton, FL
- Las Vegas, NV

Schedule your training now
Gain access to hands-on training specific to your Pierce apparatus.

Pierce Customer Service Contact Center
Phone: 888.974.3723 (1.888.Y.PIERCE)
International: 920.832.3534
Email: contactcenter@piercemfg.com





Maximum vehicle readiness.

With over \$5M and 500,000 square feet dedicated to inventory, Pierce stocks a robust parts supply that responds to every maintenance need for the life of the vehicle.

Get a 24/7, vehicle-specific parts bill of material (BOM) with up-to-date stock parts and accessories.

- Strong local inventory stocked through dealer warehouses
- Extensive factory inventory distributed through Global Logistics Center
- New and legacy parts/accessories
- Product upgrades (e.g. Command Zone) with user training available
- Backed by OEM-limited warranties
- Custom accessory fabrications and graphics

Contact your local dealer to order.



Product Upgrades



Factory Inventory

Pierce Customer Service Contact Center
Phone: 888.974.3723 (1.888.Y.PIERCE)
International: 920.832.3534
Email: contactcenter@piercemfg.com



Online factory support.

Aftermarket Support Website

The same comprehensive factory support available to Pierce dealers is accessible by Pierce customers through a guest login. Pierceparts.com connects you to our:

- Online Parts Catalog
- Stock Parts Catalog
- Component Catalogs
- Legacy Parts Catalogs
- Current Operator Manuals
- Select Service Manual Groups
- Service Training Information
- Select Learning Modules



Parts Catalogs

Truck-specific parts catalogs, based on the BOM of the vehicle, feature:

- Part numbers with full descriptions
- A library of over 33,000 illustrations

Operator Manuals

Operator manuals are available for the following Pierce products:

- Custom Chassis (7 model-specific versions)
- Commercial Chassis
- Aerials (17 model-specific versions)
- Foam Systems (8 model-specific versions)
- Pump (2 model-specific versions)

Service Manuals

Truck-specific service manuals are available, based on the design configuration of the vehicle. Service manuals typically include information on the following (as applicable): troubleshooting, front axle/suspension, brakes, engine, tires, wheels, cab, electrical, air systems, plumbing, foam system, aerial device and more.

pierceparts.com





We'll always be there. Count on it.

Technical Call Center

Staffed with industry-certified professionals in areas of electrical, aerial, pumper and chassis, we pull from a century of combined experience to offer our customers 24/7/365 support, fixing the toughest issues around the clock.

Factory and Field Service

Every customer matters. Every truck is unique. Our trusted service technicians work hand-in-hand with our dealer network to provide our customers with individual solutions, in-house or in-field.

Engineering

Details, details, details. Our dedicated engineers are ready to innovate custom solutions in anything from field service to design work that will meet our customers' individual needs.

Warranty

We're ready to answer questions regarding warranties administered by Pierce, supplier warranties or general questions related to warranty administration.



Extending the lifecycle of your legacy.

Apparatus refurbishment can add another 10-15 years of peak front-line service to your vehicle. When you choose the Midwest Refurbishment Center, we guarantee competitive pricing and legendary quality of single-service support before, during and after the job.

Backed by over 30 years of experience, every job is handled in-house by our fire apparatus experts, ensuring maximum performance of each refurbished component.



Accidents

Restore your vehicle to its original quality standards.



Aerial Overhauls

- Remount your aerial device on a new Pierce custom chassis with a completely new body
- Refurbish and remount using your existing aerial body
- Re-certification, service and testing are included
- Complete aerial overhauls
- NFPA updates



Upgrades

Apparatus adjustments and improvements are available to comply with current NFPA standards:

- Chevron striping
- New LED warning lights
- Stainless steel plumbing upgrades
- Auxiliary braking devices
- And more



Aftermarket Repair

- Engine and transmission replacement
- Pump overhaul
- Water tank replacement
- Body replacement
- Retrofit: TAK-4® Independent Front Suspension, CAFS Foam Systems, Side Roll Protection System, ANNEX-D (1901 NFPA standards)

www.piercemfg.com



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City Council
STAFF REPORT
City of Glenwood Springs
February 3, 2022

Agenda Item: Tourism Management Board Appointments

Action Requested: Tourism Management Board Appointments

Department: City Administration

Strategic Goals: Provide Efficient and Responsive City Government
Generate Sustainable Economic Development

Background Info: The Tourism Promotion Board has four regular seats opening up in February 2022, with terms expiring February 2025. These seats are:

- One Tourism Seat
- One Lodging Seat
- One Restaurant Seat
- One Resident Seat

Applicants:

- Sharon Brady; Resident. Sharon has served one full term on the Board, and reapplied for a Resident Seat.
- Pam Macmillan; Resident. Applied for a Resident Seat.
- Roger Smith; Area General Manager for the Hotel Denver and Hotel Glenwood Springs. Applied for a Lodging Seat.
- Loretta Ayala; Lodge Manager for the Glenwood Hot Springs Resort. Applied for a Lodging Seat or a Tourism Seat.
- Brandon Cambron; General Manager for The Pullman. Applied for a Restaurant Seat.
- Justine Smith; Rocky Mountaineer Station Manager and Resident.. Applied for a Tourism Seat or a Resident Seat.

Issues: None.

Staff Recommendation: Staff defers to City Council.

Tourism Promotion Board Application

Thank you for your interest and time commitment in serving your community. Please complete all questions on this application.

Personal Information

1. Name *

Loretta A. Ayala

2. Home Address *

5033 County Rd. 335 #234 New Castle, CO. 81647

3. Mailing Address *

Same

4. Home Phone *

970-456-8964

5. Work Phone *

970-947-2951

6. Mobile Phone *

970-456-8964

7. Email Address *

Work: layala@hotspringspool.com / Personal: lorettaannayala68@gmail.com

8. Occupation *

Hotel General Manager

Membership Qualifications

9. You must qualify as one of the options below to serve on the Tourism Promotion Board. Please select the option that applies to you. *

- ☒ Two (2) representatives from tourism-related businesses located within the City
- ☒ Two (2) representatives from lodging businesses located within the City
- ☐ One (1) representative from restaurant businesses located within the City
- ☐ One (1) representative from the Chamber Resort Association
- ☐ Three (3) citizens who are residents of the City, that may have a financial interest in a tourism-related business.

10. Please explain here how you are qualified: *

I believe my goals are in alignment with the Glenwood Springs Tourism Board. It has always been an important part of my current role to promote Glenwood Springs and tourism. Tourism is the economic life line of our community and I know that I can make a positive contribution in maintaining this vital facet to our economy. As the Lodge Manager for the Glenwood Hot Springs Resort, I am charged with creating budgets, maintaining expenses, setting and exceeding goals. I've had the pleasure and privilege to represent one of the leading tourist destinations in Glenwood Springs. After 11 ½ years in my current role, I am confident that I can represent and contribute at a much higher level. As a seasoned and exceedingly skilled professional, I know that my service would provide support to all stakeholders. Thank you for your consideration. Sincerely, Loretta A. Ayala

Personal and Professional Interests

11. Why are you interested in serving on the Tourism Promotion Board? *

I am passionate about the growth of this industry and the valley we live in.

12. What do you view as your role if selected as a member to the Tourism Promotion Board? *

Since I have never served on this board, I would venture to say that my first step would be to learn, observe and look for opportunities that I might help with. I am well versed in budgeting and planning, so I hope to be part of this process.

13. Do you have marketing, advertising, or public relations experience or skills? *

Yes, I have some experience in sales and marketing. I've attended conferences and trade shows.

14. Do you have tourism industry experience or skills? *

Yes, I have been in the Lodging sector for over two decades. My skills include hotel management, sales and revenue management.

15. Can you describe an experience making a decision based on public opinion? *

I personally believe this can be tricky. As a business, these types of decisions have to be carefully weighed and conducive to your operations, but there are definitely times where this may be appropriate. My example, at the Lodge we changed out our cable provider and upgraded our in room technology because of guest feedback. There has also been decisions made because of Covid . On a personal level, I don't think I've ever made a decision based on public opinion. Although I am highly extraverted, I am not very vocal about my personal opinions and choose to maintain my decorum in diverse situations.

16. Can you separate yourself from your personal opinions and represent the City's goals, policies, plans and the Glenwood Springs Municipal Code in an equitable fashion? *

Yes, I understand the need and concept of this.

17. Do you have any existing time commitments that will hamper your ability to serve? *

At this time, I do not.

18. What experience do you have working with people on a board, commission, or committee? *

I have experience with committees.

19. Please select today's date. *

10/20/2021



20. Have you served on the Tourism Promotion Board before? *

☒ No

☐ Yes

Powers and Duties of the Tourism Promotion Board

(as defined in Title 020 of the Glenwood Springs Municipal Code)

(m) Tourism Promotion Board. The powers and duties of the Tourism Promotion Board shall be:

(1) To investigate, study and report to the City Council:

a. All matters concerning tourism marketing and promotion that pertain to the benefit of Glenwood Springs and the area within the 81601 postal zip code, and

b. Other matters concerning the subject of tourism marketing and promotion which may be pertinent to the benefit of the City and the area within the 81601 postal zip code.

(2) To coordinate with City Staff, Community Organizations, Community Businesses, and other Boards and commissions, when applicable to efficiently market and promote tourism to the benefit of Glenwood Springs and the area within the 81601 postal zip code.

(3) To, at its discretion, and in addition to initiatives that directly market and promote features and attractions within the City and the area within the 81601 postal zip code, market and promote the geographical proximity of Glenwood Springs to other features and attractions outside of the 81601 postal zip code in ways that could reasonably be expected to benefit the City.

(4) To establish rules of procedure and order for the Board to follow.

(5) To review tourism marketing plans; to set tourism marketing goals, to determine the methods to accomplish and measure success in accomplishing those goals; to determine the appropriate staff and marketing contractor(s)/vendor(s) resources needed; to recommend to the City Council an annual tourism marketing budget; to recommend, to the City Council, award of contract(s) for the best candidate for contract staff and marketing contractor(s)/vendor(s) ,deemed necessary, based upon an approved Request for Proposal, Request for Qualification or other process; and to provide oversight of performance of contract staff and marketing vendor(s)/contractor(s) contract terms to ensure the efficient and effective implementation of the marketing goals and to report problems with performance to City Council.

(6) To meet with the City Council on an annual basis, or as often as requested by the City Council, to identify marketing priorities of the City.

(7) To complete all other duties as may be directed by City Council.

Appointment, Removal, Term and Vacancies of Boards and Commissions

Glenwood Springs, CO Municipal Code 020.020.040

(a) Appointment and term of members. Except as otherwise provided, all appointments to the boards and commissions shall be by the City Council for terms of three (3) years each, and each member shall serve until his/her successor is appointed and takes office; provided, however, that the initial terms of office may be shortened by the City Council so as to provide overlapping terms of office. Appointments shall expire the day before the first regular meeting of the City Council in each month according to the following schedule:

(1) February:

Tourism Promotion Board;

(b) Alternate members. The City Council at its discretion may appoint up to three (3) persons as alternate members for each board or commission. If a regular member of a board or commission is to be absent from a meeting, the presiding officer for the meeting may select an alternate member to fill such absence and to attend and serve at the meeting. The alternate member may exercise all powers at the meeting which the absent regular member could exercise, and the alternate's powers and privileges shall terminate at the end of the meeting attended. The presiding officer may at his/her discretion select the same alternate to serve at successive meetings in the absence of any member.

(c) Limit to term of members. No board member shall serve more than two (2) successive terms on the same board or commission.

(d) Removal of members. All appointed members of a board or commission shall be subject to removal, at any time, by the City Council. In the event an appointed member of a board or commission ceases to qualify for membership, his or her appointment is immediately terminated.

(e) Vacancies. The City Council shall fill all vacancies on boards and commissions by appointment for the unexpired term.

(Code 1971 §§ 2-63, 2-64, 2-67; 6-95 § 1; 10-07 § 2; Ord. No. 9-2018 , § 2, 4-20-2018)



Tourism Promotion Board Application

Thank you for your interest and time commitment in serving your community. Please complete all questions on this application.

Personal Information

1. Name *

Roger Smith

2. Home Address *

66 Meadow Ln, Glenwood Springs, CO 81601

3. Mailing Address *

66 Meadow Ln, Glenwood Springs, CO 81601

4. Home Phone *

970-445-0506

5. Work Phone *

970-445-0506

6. Mobile Phone *

970-445-0506

7. Email Address *

roger@hotelglenwood.com

8. Occupation *

Area General Manager for the Hotel Denver and Hotel Glenwood Springs

Membership Qualifications

9. You must qualify as one of the options below to serve on the Tourism Promotion Board. Please select the option that applies to you. *

- ☐ Two (2) representatives from tourism-related businesses located within the City
- ☒ Two (2) representatives from lodging businesses located within the City
- ☐ One (1) representative from restaurant businesses located within the City
- ☐ One (1) representative from the Chamber Resort Association
- ☐ Three (3) citizens who are residents of the City, that may have a financial interest in a tourism-related business.

10. Please explain here how you are qualified: *

I am the General Manager for two hotels in Glenwood Springs

Personal and Professional Interests

11. Why are you interested in serving on the Tourism Promotion Board? *

To assist the city's effort in promoting the Glenwood Springs.

12. What do you view as your role if selected as a member to the Tourism Promotion Board? *

I would be a representative for the entire local lodging community.

13. Do you have marketing, advertising, or public relations experience or skills? *

No.

14. Do you have tourism industry experience or skills? *

Yes, I have 18 years of hotel experience.

15. Can you describe an experience making a decision based on public opinion? *

Within my hotels, most of the decisions I make are based on feedback from guests and staff.

16. Can you separate yourself from your personal opinions and represent the City's goals, policies, plans and the Glenwood Springs Municipal Code in an equitable fashion? *

Yes.

17. Do you have any existing time commitments that will hamper your ability to serve? *

No.

18. What experience do you have working with people on a board, commission, or committee? *

None.

19. Please select today's date. *

10/19/2021



20. Have you served on the Tourism Promotion Board before? *

☒ No

☐ Yes

Powers and Duties of the Tourism Promotion Board

(as defined in Title 020 of the Glenwood Springs Municipal Code)

(m) Tourism Promotion Board. The powers and duties of the Tourism Promotion Board shall be:

- (1) To investigate, study and report to the City Council:
 - a. All matters concerning tourism marketing and promotion that pertain to the benefit of Glenwood Springs and the area within the 81601 postal zip code, and
 - b. Other matters concerning the subject of tourism marketing and promotion which may be pertinent to the benefit of the City and the area within the 81601 postal zip code.
 - (2) To coordinate with City Staff, Community Organizations, Community Businesses, and other Boards and commissions, when applicable to efficiently market and promote tourism to the benefit of Glenwood Springs and the area within the 81601 postal zip code.
 - (3) To, at its discretion, and in addition to initiatives that directly market and promote features and attractions within the City and the area within the 81601 postal zip code, market and promote the geographical proximity of Glenwood Springs to other features and attractions outside of the 81601 postal zip code in ways that could reasonably be expected to benefit the City.
 - (4) To establish rules of procedure and order for the Board to follow.
 - (5) To review tourism marketing plans; to set tourism marketing goals, to determine the methods to accomplish and measure success in accomplishing those goals; to determine the appropriate staff and marketing contractor(s)/vendor(s) resources needed; to recommend to the City Council an annual tourism marketing budget; to recommend, to the City Council, award of contract(s) for the best candidate for contract staff and marketing contractor(s)/vendor(s) ,deemed necessary, based upon an approved Request for Proposal, Request for Qualification or other process; and to provide oversight of performance of contract staff and marketing vendor(s)/contractor(s) contract terms to ensure the efficient and effective implementation of the marketing goals and to report problems with performance to City Council.
 - (6) To meet with the City Council on an annual basis, or as often as requested by the City Council, to identify marketing priorities of the City.
 - (7) To complete all other duties as may be directed by City Council.
-

Appointment, Removal, Term and Vacancies of Boards and Commissions

Glenwood Springs, CO Municipal Code 020.020.040

(a) Appointment and term of members. Except as otherwise provided, all appointments to the boards and commissions shall be by the City Council for terms of three (3) years each, and each member shall serve until his/her successor is appointed and takes office; provided, however, that the initial terms of office may be shortened by the City Council so as to provide overlapping terms of office. Appointments shall expire the day before the first regular meeting of the City Council in each month according to the following schedule:

- (1) February:
Tourism Promotion Board;

(b) Alternate members. The City Council at its discretion may appoint up to three (3) persons as alternate members for each board or commission. If a regular member of a board or commission is to be absent from a meeting, the presiding officer for the meeting may select an alternate member to fill such absence and to attend and serve at the meeting. The alternate member may exercise all powers at the meeting which the absent regular member could exercise, and the alternate's powers and privileges shall terminate at the end of the meeting attended. The presiding officer may at his/her discretion select the same alternate to serve at successive meetings in the absence of any member.

(c) Limit to term of members. No board member shall serve more than two (2) successive terms on the same board or commission.

(d) Removal of members. All appointed members of a board or commission shall be subject to removal, at any time, by the City Council. In the event an appointed member of a board or commission ceases to qualify for membership, his or her appointment is immediately terminated.

(e) Vacancies. The City Council shall fill all vacancies on boards and commissions by appointment for the unexpired term.

(Code 1971 §§ 2-63, 2-64, 2-67; 6-95 § 1; 10-07 § 2; Ord. No. 9-2018 , § 2, 4-20-2018)



Tourism Promotion Board Application

Thank you for your interest and time commitment in serving your community. Please complete all questions on this application.

Personal Information

1. Name *

Sharon Brady

2. Home Address *

816 Lincoln Ave Glenwood Springs 82602

3. Mailing Address *

Same

4. Home Phone *

970-404-7722

5. Work Phone *

970-945-1470

6. Mobile Phone *

970-404-7722

7. Email Address *

Bradyduo@gmail.com

8. Occupation *

Retail Store Co-Owner

Membership Qualifications

9. You must qualify as one of the options below to serve on the Tourism Promotion Board. Please select the option that applies to you. *

- ☐ Two (2) representatives from tourism-related businesses located within the City
- ☐ Two (2) representatives from lodging businesses located within the City
- ☐ One (1) representative from restaurant businesses located within the City
- ☐ One (1) representative from the Chamber Resort Association
- ☒ Three (3) citizens who are residents of the City, that may have a financial interest in a tourism-related business.

10. Please explain here how you are qualified: *

Resident, currently serving on the TPB, own Cooper Wine & Spirits

Personal and Professional Interests

11. Why are you interested in serving on the Tourism Promotion Board? *

Tourism is a vital part of our community and this board strives to effectively manage and streamline messaging to promote our amazing City in a responsible manner. My job involves marketing and advertising and I believe I'm a hood fit on the Board.

12. What do you view as your role if selected as a member to the Tourism Promotion Board? *

Offer suggestions, ideas, help plan events, make budgetary decisions all to help our City thrive

13. Do you have marketing, advertising, or public relations experience or skills? *

Yes

14. Do you have tourism industry experience or skills? *

We see a tremendous amount of visitors in our store each year and work hard to accommodate them successfully. I also was the public relations acct manager for Stone Mountain Park, GA when I lived in Atlanta.

15. Can you describe an experience making a decision based on public opinion? *

Not at the moment

16. Can you separate yourself from your personal opinions and represent the City's goals, policies, plans and the Glenwood Springs Municipal Code in an equitable fashion? *

Yes

17. Do you have any existing time commitments that will hamper your ability to serve? *

No

18. What experience do you have working with people on a board, commission, or committee? *

I've worked on the VALE board; currently serve on this Board and the Andy Zanca Youth Empowerment Board, and was the Director of Junior Achievement so I conducted all the board meetings for that organization.

19. Please select today's date. *

10/20/2021



20. Have you served on the Tourism Promotion Board before? *

☐ No

☒ Yes

Reappointment Applicants

21. Why do you think you should be reappointed? *

I have attended every meeting I possibly could. Because I live and work in Glenwood, I feel I have a good understanding of the economic pulse in the Downtown core and surrounding areas and how tourism affects our community. I listen to all sides of the discussion before rendering a decision and respect my fellow board members and their opinions.

22. Have you served more than two full terms on the Tourism Promotion Board? *

No

Composition of the Tourism Promotion Board

- a. Two (2) representatives from tourism-related businesses located within the city;
- b. Two (2) representatives from lodging businesses located within the city;
- c. One (1) representative from restaurant or retail businesses located within city;
- d. One (1) representative from the Glenwood Springs Chamber Resort Association; and
- e. Three (3) citizens, who are residents of the city, that may have a financial interest in a tourism-related business.

Powers and Duties of the Tourism Promotion Board

(as defined in Title 020 of the Glenwood Springs Municipal Code)

(m) Tourism Promotion Board. The powers and duties of the Tourism Promotion Board shall be:

(1) To investigate, study and report to the City Council:

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- b. Other matters concerning the subject of tourism marketing and promotion which may be pertinent to the benefit of the City and the area within the 81601 postal zip code.

(2) To coordinate with City Staff, Community Organizations, Community Businesses, and other Boards and commissions, when applicable to efficiently market and promote tourism to the benefit

of Glenwood Springs and the area within the 81601 postal zip code.

(3) To, at its discretion, and in addition to initiatives that directly market and promote features and attractions within the City and the area within the 81601 postal zip code, market and promote the geographical proximity of Glenwood Springs to other features and attractions outside of the 81601 postal zip code in ways that could reasonably be expected to benefit the City.

(4) To establish rules of procedure and order for the Board to follow.

(5) To review tourism marketing plans; to set tourism marketing goals, to determine the methods to accomplish and measure success in accomplishing those goals; to determine the appropriate staff and marketing contractor(s)/vendor(s) resources needed; to recommend to the City Council an annual tourism marketing budget; to recommend, to the City Council, award of contract(s) for the best candidate for contract staff and marketing contractor(s)/vendor(s) ,deemed necessary, based upon an approved Request for Proposal, Request for Qualification or other process; and to provide oversight of performance of contract staff and marketing vendor(s)/contractor(s) contract terms to ensure the efficient and effective implementation of the marketing goals and to report problems with performance to City Council.

(6) To meet with the City Council on an annual basis, or as often as requested by the City Council, to identify marketing priorities of the City.

(7) To complete all other duties as may be directed by City Council.

Appointment, Removal, Term and Vacancies of Boards and Commissions

Glenwood Springs, CO Municipal Code 020.020.040

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(1) February:
Tourism Promotion Board;

(b) Alternate members. The City Council at its discretion may appoint up to three (3) persons as alternate members for each board or commission. If a regular member of a board or commission is to be absent from a meeting, the presiding officer for the meeting may select an alternate member to fill such absence and to attend and serve at the meeting. The alternate member may exercise all powers at the meeting which the absent regular member could exercise, and the alternate's powers and privileges shall terminate at the end of the meeting attended. The presiding officer may at his/her discretion select the same alternate to serve at successive meetings in the absence of any member.

(c) Limit to term of members. No board member shall serve more than two (2) successive terms

on the same board or commission.

(d) Removal of members. All appointed members of a board or commission shall be subject to removal, at any time, by the City Council. In the event an appointed member of a board or commission ceases to qualify for membership, his or her appointment is immediately terminated.

(e) Vacancies. The City Council shall fill all vacancies on boards and commissions by appointment for the unexpired term.

(Code 1971 §§ 2-63, 2-64, 2-67; 6-95 § 1; 10-07 § 2; Ord. No. 9-2018 , § 2, 4-20-2018)



Respondent



11

Anonymous



124:54

Time to complete



Tourism Promotion Board Application

Thank you for your interest and time commitment in serving your community. Please complete all questions on this application.

Composition of the Tourism Promotion Board

(as defined in Title 020 of the Glenwood Springs Municipal Code)

- a. Two (2) representatives from tourism-related businesses located within the city;
- b. Two (2) representatives from lodging businesses located within the city;
- c. One (1) representative from restaurant or retail businesses located within city;
- d. One (1) representative from the Glenwood Springs Chamber Resort Association; and
- e. Three (3) citizens, who are residents of the city, that may have a financial interest in a tourism-related business.

Personal Information

1. Membership Qualifications *

You must qualify as one of the options below to serve on the Tourism Promotion Board. Please select the option that applies to you.

- ☐ Two (2) representatives from tourism-related businesses located within the City
- ☐ Two (2) representatives from lodging businesses located within the City
- ☒ One (1) representative from restaurant businesses located within the City
- ☐ One (1) representative from the Chamber Resort Association
- ☐ Three (3) citizens who are residents of the City, that may have a financial interest in a tourism-related business.

2. Please explain here how you are qualified: *

I love tourism and submersing myself in different cultures. Learning how different parts of the world work and interact with each other excites me. I've spent the last ten years focused on hospitality management in high-trafficked resort areas such as Tulum, San Francisco, Bangkok, Hong Kong, and Lake Tahoe. Since I have relocated to Glenwood, I have wanted to be a part of this community and build better relationships with everyone in the Downtown area. It's important for all of us in a community to talk about how frustrating it must be for a tourist who can't get food past 9 or has limited options for lunch and Mondays. I want this position and think I would bring valued input as well support for our causes.

3. Name *

Brandon Cambron

4. Home Address *

828 D Red Valley Drive, Glenwood Springs, CO 81601

5. Mailing Address *

PO Box 591 Glenwood Springs, CO 81601

6. Home Phone *

5304889214

7. Work Phone *

9702309234

8. Mobile Phone *

5304889214

9. Email Address *

Brandon@thepullmangws.com

10. Occupation *

General Manager at The Pullman

Personal and Professional Interests

11. Why are you interested in serving on the Tourism Promotion Board? *

I have a fresh mindset on Tourism and have spent the past few years traveling abroad and working throughout Asia, Europe, and Mexico. I believe Glenwood could benefit by finding better ways to communicate amongst businesses, to create a better and friendly environment for our tourists.

12. What do you view as your role if selected as a member to the Tourism Promotion Board? *

My role would be focused on fostering ways to better communicate with the local business on issues addressed. I want our community to have a clear mindset on how we can all benefit from focusing more on Tourism.

13. Do you have marketing, advertising, or public relations experience or skills? *

Yes, I handled all public relations in Tulum, Mexico with the opening of two resorts. I've also handled all social accounts with several restaurants, hotels, and various businesses. I'm proficient in Video editing, but it's not a strong skill of mine.

14. Do you have tourism industry experience or skills? *

Yes, I've worked internationally and domestically in high trafficked tourists areas. I've managed a range of different businesses in the hospitality industry, including a Ski Resort, Private Golf Club, Fine Dining Restaurant, Hostel, and opened of the highest-grossing restaurants in the US, Gordon Ramsay's Hell's Kitchen.

15. Can you describe an experience making a decision based on public opinion? *

I'm unsure how to answer this question. Let's speak further in person so I can get better assess the question.

16. Can you separate yourself from your personal opinions and represent the City's goals, policies, plans and the Glenwood Springs Municipal Code in an equitable fashion? *

Yes, I've always been able to keep personal opinions separate from any employment. I find it a valuable trait to have in management settings.

17. Do you have any existing time commitments that will hamper your ability to serve? *

No, I will attend all the scheduled meetings, provided they are planned ahead of time. I will need to schedule my weekdays accordingly so that I can go.

18. What experience do you have working with people on a board, commission, or committee? *

In Tahoe, I was a liaison for several committees, including the wedding association and the event committee. Organizing groups like the annual TedX South Lake Tahoe, Bloody Mary, and Spirit Competition.

19. Please select today's date. *

11/11/2021



20. Have you served on the Tourism Promotion Board before? *

☒ No

☐ Yes

Powers and Duties of the Tourism Promotion Board

(as defined in Title 020 of the Glenwood Springs Municipal Code);

(m) Tourism Promotion Board. The powers and duties of the Tourism Promotion Board shall be:

- (1) To investigate, study and report to the City Council:
 - a. All matters concerning tourism marketing and promotion that pertain to the benefit of Glenwood Springs and the area within the 81601 postal zip code, and
 - b. Other matters concerning the subject of tourism marketing and promotion which may be pertinent to the benefit of the City and the area within the 81601 postal zip code.
- (2) To coordinate with City Staff, Community Organizations, Community Businesses, and other Boards and commissions, when applicable to efficiently market and promote tourism to the benefit of Glenwood Springs and the area within the 81601 postal zip code.
- (3) To, at its discretion, and in addition to initiatives that directly market and promote features and attractions within the City and the area within the 81601 postal zip code, market and promote the geographical proximity of Glenwood Springs to other features and attractions outside of the 81601 postal zip code in ways that could reasonably be expected to benefit the City.
- (4) To establish rules of procedure and order for the Board to follow.
- (5) To review tourism marketing plans; to set tourism marketing goals, to determine the methods to accomplish and measure success in accomplishing those goals; to determine the appropriate staff and marketing contractor(s)/vendor(s) resources needed; to recommend to the City Council an annual tourism marketing budget; to recommend, to the City Council, award of contract(s) for the best candidate for contract staff and marketing contractor(s)/vendor(s) ,deemed necessary, based upon an approved Request for Proposal, Request for Qualification or other process; and to provide oversight of performance of contract staff and marketing vendor(s)/contractor(s) contract terms to ensure the efficient and effective implementation of the marketing goals and to report

problems with performance to City Council.

(6) To meet with the City Council on an annual basis, or as often as requested by the City Council, to identify marketing priorities of the City.

(7) To complete all other duties as may be directed by City Council.

Appointment, Removal, Term and Vacancies of Boards and Commissions

(Per the Glenwood Springs, CO Municipal Code 020.020.040)

(a) Appointment and term of members. Except as otherwise provided, all appointments to the boards and commissions shall be by the City Council for terms of three (3) years each, and each member shall serve until his/her successor is appointed and takes office; provided, however, that the initial terms of office may be shortened by the City Council so as to provide overlapping terms of office. Appointments shall expire the day before the first regular meeting of the City Council in each month according to the following schedule:

(1) February:

Tourism Promotion Board;

(b) Alternate members. The City Council at its discretion may appoint up to three (3) persons as alternate members for each board or commission. If a regular member of a board or commission is to be absent from a meeting, the presiding officer for the meeting may select an alternate member to fill such absence and to attend and serve at the meeting. The alternate member may exercise all powers at the meeting which the absent regular member could exercise, and the alternate's powers and privileges shall terminate at the end of the meeting attended. The presiding officer may at his/her discretion select the same alternate to serve at successive meetings in the absence of any member.

(c) Limit to term of members. No board member shall serve more than two (2) successive terms on the same board or commission.

(d) Removal of members. All appointed members of a board or commission shall be subject to removal, at any time, by the City Council. In the event an appointed member of a board or commission ceases to qualify for membership, his or her appointment is immediately terminated.

(e) Vacancies. The City Council shall fill all vacancies on boards and commissions by appointment for the unexpired term.

(Code 1971 §§ 2-63, 2-64, 2-67; 6-95 § 1; 10-07 § 2; Ord. No. 9-2018 , § 2, 4-20-2018)

Respondent



12

Anonymous



51:59

Time to complete



Tourism Promotion Board Application

Thank you for your interest and time commitment in serving your community. Please complete all questions on this application.

Composition of the Tourism Promotion Board

(as defined in Title 020 of the Glenwood Springs Municipal Code)

- a. Two (2) representatives from tourism-related businesses located within the city;
- b. Two (2) representatives from lodging businesses located within the city;
- c. One (1) representative from restaurant or retail businesses located within city;
- d. One (1) representative from the Glenwood Springs Chamber Resort Association; and
- e. Three (3) citizens, who are residents of the city, that may have a financial interest in a tourism-related business.

Personal Information

1. Membership Qualifications *

You must qualify as one of the options below to serve on the Tourism Promotion Board. Please select the option that applies to you.

- ☐ Two (2) representatives from tourism-related businesses located within the City
- ☐ Two (2) representatives from lodging businesses located within the City
- ☐ One (1) representative from restaurant businesses located within the City
- ☐ One (1) representative from the Chamber Resort Association
- ☒ Three (3) citizens who are residents of the City, that may have a financial interest in a tourism-related business.

2. Please explain here how you are qualified: *

I own a home in Downtown Glenwood Springs and I would like to see Glenwood continue to have a real, viable and thriving tourism industry (which it does not have now). As an artist, a designer and a home owner, I have a vested interest in the aesthetic quality of this town. People come here to enjoy the outdoors and see a Beautiful Colorado Mountain Town. They want Access to our Rivers and Trails, Bike Paths, Walking areas, Events, Music, Activities, Wonderful little Shops and Great Restaurants. If you want people to come here and spend money and time you need to offer them the best of Colorado. We need some long range planning. They don't want traffic, a bunch of junk and drug addicts laying on public walk ways, they can get all that at home. Glenwood Springs really needs to pick up the pace if they want people to choose this town for their vacation or weekend getaway. We have no Holiday Activities this year what happen?

3. Name *

Pam Macmillan

4. Home Address *

1009 Colorado Ave. Glenwood Springs ,CO 81601

5. Mailing Address *

1009 Colorado Ave. Glenwood Springs ,CO 81601

6. Home Phone *

303-917-4686

7. Work Phone *

303-917-4686

8. Mobile Phone *

303-917-4686

9. Email Address *

pmacmillan6199@gmail.com

10. Occupation *

Design Consultant for Crossville Studios

Personal and Professional Interests

11. Why are you interested in serving on the Tourism Promotion Board? *

Tourism is a clean industry for the most part. I like living in a place people want to visit. Glenwood Springs is growing and providing a great place to visit also means a great place to live and work. We have two wonderful rivers that meet here and no downtown access. Outside seating at restaurants started ,because of COVID, why was there never outside seating before? We need to get going on attracting people to our town for the right reasons if we don't just want to be a place people speed through to get somewhere else.

12. What do you view as your role if selected as a member to the Tourism Promotion Board? *

Getting new plans in place to make this town grow in the right direction. Figuring out how to pay to make things happen and attracting people here who can make things happen. Young people and people with experience developing a town correctly.

13. Do you have marketing, advertising, or public relations experience or skills? *

I was a teacher for 20 years, I have run my own painting business and I am in sales now.

14. Do you have tourism industry experience or skills? *

I was a ski instructor for Vail for 8 years and Aspen Ski Co. for 8 years.

15. Can you describe an experience making a decision based on public opinion? *

When you teach you do what is best for the children in your class at that time, not for their parents or the school district.

16. Can you separate yourself from your personal opinions and represent the City's goals, policies, plans and the Glenwood Springs Municipal Code in an equitable fashion? *

I can separate my personal opinions, but the City's goals have not really lined up with what the people who live here and work want. I talk to people who run restaurants and shops here a lot. Glenwood Springs does not listen to them. I have been to city meetings and the city has a habit of sending low level people to present and field questions and then they whatever they want. This town is not being developed responsibly. It is becoming trashy, the traffic is awful and bums on the streets are increasing.

17. Do you have any existing time commitments that will hamper your ability to serve? *

I work full time ,but if I know when meetings are I will get off

18. What experience do you have working with people on a board, commission, or committee? *

None

19. Please select today's date. *

12/3/2021



20. Have you served on the Tourism Promotion Board before? *

☒ No

☐ Yes

Powers and Duties of the Tourism Promotion Board

(as defined in Title 020 of the Glenwood Springs Municipal Code);

(m) Tourism Promotion Board. The powers and duties of the Tourism Promotion Board shall be:

- (1) To investigate, study and report to the City Council:
 - a. All matters concerning tourism marketing and promotion that pertain to the benefit of Glenwood Springs and the area within the 81601 postal zip code, and
 - b. Other matters concerning the subject of tourism marketing and promotion which may be pertinent to the benefit of the City and the area within the 81601 postal zip code.
- (2) To coordinate with City Staff, Community Organizations, Community Businesses, and other Boards and commissions, when applicable to efficiently market and promote tourism to the benefit of Glenwood Springs and the area within the 81601 postal zip code.
- (3) To, at its discretion, and in addition to initiatives that directly market and promote features and attractions within the City and the area within the 81601 postal zip code, market and promote the geographical proximity of Glenwood Springs to other features and attractions outside of the 81601 postal zip code in ways that could reasonably be expected to benefit the City.
- (4) To establish rules of procedure and order for the Board to follow.
- (5) To review tourism marketing plans; to set tourism marketing goals, to determine the methods to accomplish and measure success in accomplishing those goals; to determine the appropriate staff and marketing contractor(s)/vendor(s) resources needed; to recommend to the City Council an annual tourism marketing budget; to recommend, to the City Council, award of contract(s) for the best candidate for contract staff and marketing contractor(s)/vendor(s) ,deemed necessary,

based upon an approved Request for Proposal, Request for Qualification or other process; and to provide oversight of performance of contract staff and marketing vendor(s)/contractor(s) contract terms to ensure the efficient and effective implementation of the marketing goals and to report problems with performance to City Council.

(6) To meet with the City Council on an annual basis, or as often as requested by the City Council, to identify marketing priorities of the City.

(7) To complete all other duties as may be directed by City Council.

Appointment, Removal, Term and Vacancies of Boards and Commissions

(Per the Glenwood Springs, CO Municipal Code 020.020.040)

(a) Appointment and term of members. Except as otherwise provided, all appointments to the boards and commissions shall be by the City Council for terms of three (3) years each, and each member shall serve until his/her successor is appointed and takes office; provided, however, that the initial terms of office may be shortened by the City Council so as to provide overlapping terms of office. Appointments shall expire the day before the first regular meeting of the City Council in each month according to the following schedule:

(1) February:

Tourism Promotion Board;

(b) Alternate members. The City Council at its discretion may appoint up to three (3) persons as alternate members for each board or commission. If a regular member of a board or commission is to be absent from a meeting, the presiding officer for the meeting may select an alternate member to fill such absence and to attend and serve at the meeting. The alternate member may exercise all powers at the meeting which the absent regular member could exercise, and the alternate's powers and privileges shall terminate at the end of the meeting attended. The presiding officer may at his/her discretion select the same alternate to serve at successive meetings in the absence of any member.

(c) Limit to term of members. No board member shall serve more than two (2) successive terms on the same board or commission.

(d) Removal of members. All appointed members of a board or commission shall be subject to removal, at any time, by the City Council. In the event an appointed member of a board or commission ceases to qualify for membership, his or her appointment is immediately terminated.

(e) Vacancies. The City Council shall fill all vacancies on boards and commissions by appointment for the unexpired term.

(Code 1971 §§ 2-63, 2-64, 2-67; 6-95 § 1; 10-07 § 2; Ord. No. 9-2018 , § 2, 4-20-2018)

Respondent



13

Anonymous



49:08

Time to complete



Tourism Promotion Board Application

Thank you for your interest and time commitment in serving your community. Please complete all questions on this application.

Composition of the Tourism Promotion Board

(as defined in Title 020 of the Glenwood Springs Municipal Code)

- a. Two (2) representatives from tourism-related businesses located within the city;
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- c. One (1) representative from restaurant or retail businesses located within city;
- d. One (1) representative from the Glenwood Springs Chamber Resort Association; and
- e. Three (3) citizens, who are residents of the city, that may have a financial interest in a tourism-related business.

Personal Information

1. Membership Qualifications *

You must qualify as one of the options below to serve on the Tourism Promotion Board. Please select the option that applies to you.

- ☒ Two (2) representatives from tourism-related businesses located within the City
- ☐ Two (2) representatives from lodging businesses located within the City
- ☐ One (1) representative from restaurant businesses located within the City
- ☐ One (1) representative from the Chamber Resort Association
- ☒ Three (3) citizens who are residents of the City, that may have a financial interest in a tourism-related business.

2. Please explain here how you are qualified: *

Glenwood Springs resident & Station Manager for Rocky Mountaineer, a travel and tourism business new to Glenwood, and seeking to be informed, involved, and supportive of tourism efforts in our town.

3. Name *

Justine Smith

4. Home Address *

505 Hyland Park Drive Glenwood Springs, CO 81601

5. Mailing Address *

505 Hyland Park Drive Glenwood Springs, CO 81601

6. Home Phone *

970-618-1935

7. Work Phone *

970-989-2232

8. Mobile Phone *

970-618-1935

9. Email Address *

jsmith@rockymountaineer.com

10. Occupation *

Station Manager, Rocky Mountaineer

Personal and Professional Interests

11. Why are you interested in serving on the Tourism Promotion Board? *

I would like to be well informed and engaged in the promotion of tourism in our area BOTH as a resident AND as a contributing member in the tourism community. I want to actively support community effort and participate in creating and growing opportunities for guests, residents, and local businesses to connect.

12. What do you view as your role if selected as a member to the Tourism Promotion Board? *

To contribute to agreed upon initiatives through discussion, ideas, and time. To assist in the promotion of Glenwood Springs as a destination to both visitors and residents, highlighting all there is to do and see. To assist in the creation of events and activities that draw a crowd and enhance visibility. To take on suggestions and critiques of Rocky Mountaineer as a member of the community and welcome ideas for deeper involvement in the community.

13. Do you have marketing, advertising, or public relations experience or skills? *

Yes, I have a successful background in marketing small and large businesses from fashion to technology, using allocated budgets for greater visibility and goodwill as well as some website design and maintenance.

14. Do you have tourism industry experience or skills? *

I do! I have held roles in hospitality and am currently employed in the tourism industry.

15. Can you describe an experience making a decision based on public opinion? *

Personally, I have not been involved in decision making for a large population, but am confident in my ability to thoughtfully consider varying opinions and outcomes for the best result.

16. Can you separate yourself from your personal opinions and represent the City's goals, policies, plans and the Glenwood Springs Municipal Code in an equitable fashion? *

Absolutely, I think personal opinions have to be put aside often to maintain cohesiveness and produce a satisfactory result in a group. I consider myself a respectful, respectable, and thorough individual as well as a clear communicator. I know I can contribute in a situation that requires regulation and also one that allows for creativity.

17. Do you have any existing time commitments that will hamper your ability to serve? *

I am employed full time, but know that further involvement in the community is highly encouraged by Rocky Mountaineer and will be supported as a part of my role. I also hold a volunteer hockey director position with Grizzly Hockey and hold late Monday and Wednesday afternoons sacred for the teams from Nov-Mar.

18. What experience do you have working with people on a board, commission, or committee? *

My involvement in youth hockey has me reporting to a board, discussing, collaborating, and compromising on different plans. I also held a role as a banking officer earlier in my career and was responsible for preparing and presenting to a committee for larger loan decisions with thorough information and defense of the request.

19. Please select today's date. *

12/14/2021	
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20. Have you served on the Tourism Promotion Board before? *

☒ No

☐ Yes

Powers and Duties of the Tourism Promotion Board

(as defined in Title 020 of the Glenwood Springs Municipal Code);

(m) Tourism Promotion Board. The powers and duties of the Tourism Promotion Board shall be:

- (1) To investigate, study and report to the City Council:
 - a. All matters concerning tourism marketing and promotion that pertain to the benefit of Glenwood Springs and the area within the 81601 postal zip code, and
 - b. Other matters concerning the subject of tourism marketing and promotion which may be pertinent to the benefit of the City and the area within the 81601 postal zip code.
- (2) To coordinate with City Staff, Community Organizations, Community Businesses, and other Boards and commissions, when applicable to efficiently market and promote tourism to the benefit of Glenwood Springs and the area within the 81601 postal zip code.
- (3) To, at its discretion, and in addition to initiatives that directly market and promote features and attractions within the City and the area within the 81601 postal zip code, market and promote the geographical proximity of Glenwood Springs to other features and attractions outside of the 81601 postal zip code in ways that could reasonably be expected to benefit the City.
- (4) To establish rules of procedure and order for the Board to follow.
- (5) To review tourism marketing plans; to set tourism marketing goals, to determine the methods to accomplish and measure success in accomplishing those goals; to determine the appropriate staff and marketing contractor(s)/vendor(s) resources needed; to recommend to the City Council an annual tourism marketing budget; to recommend, to the City Council, award of contract(s) for the best candidate for contract staff and marketing contractor(s)/vendor(s) ,deemed necessary, based upon an approved Request for Proposal, Request for Qualification or other process; and to provide oversight of performance of contract staff and marketing vendor(s)/contractor(s) contract terms to ensure the efficient and effective implementation of the marketing goals and to report problems with performance to City Council.

- (6) To meet with the City Council on an annual basis, or as often as requested by the City Council, to identify marketing priorities of the City.
 - (7) To complete all other duties as may be directed by City Council.
-

Appointment, Removal, Term and Vacancies of Boards and Commissions

(Per the Glenwood Springs, CO Municipal Code 020.020.040)

- (a) Appointment and term of members. Except as otherwise provided, all appointments to the boards and commissions shall be by the City Council for terms of three (3) years each, and each member shall serve until his/her successor is appointed and takes office; provided, however, that the initial terms of office may be shortened by the City Council so as to provide overlapping terms of office. Appointments shall expire the day before the first regular meeting of the City Council in each month according to the following schedule:
 - (1) February:
Tourism Promotion Board;
- (b) Alternate members. The City Council at its discretion may appoint up to three (3) persons as alternate members for each board or commission. If a regular member of a board or commission is to be absent from a meeting, the presiding officer for the meeting may select an alternate member to fill such absence and to attend and serve at the meeting. The alternate member may exercise all powers at the meeting which the absent regular member could exercise, and the alternate's powers and privileges shall terminate at the end of the meeting attended. The presiding officer may at his/her discretion select the same alternate to serve at successive meetings in the absence of any member.
- (c) Limit to term of members. No board member shall serve more than two (2) successive terms on the same board or commission.
- (d) Removal of members. All appointed members of a board or commission shall be subject to removal, at any time, by the City Council. In the event an appointed member of a board or commission ceases to qualify for membership, his or her appointment is immediately terminated.
- (e) Vacancies. The City Council shall fill all vacancies on boards and commissions by appointment for the unexpired term.

(Code 1971 §§ 2-63, 2-64, 2-67; 6-95 § 1; 10-07 § 2; Ord. No. 9-2018 , § 2, 4-20-2018)



City Council
STAFF REPORT
City of Glenwood Springs
February 3, 2022

Agenda Item: Arts and Culture Board Appointments

Action Requested: Arts and Culture Board Appointments

Department: City Administration

Strategic Goals: Provide Efficient and Responsive City Government

Background Info: This March, the Arts & Culture Board will have one regular seat available with term expiring 03/2025. Additionally, the Arts & Culture Board currently has one alternate seat available with term expiring 03/2024 (to fill) and a Youth Representative seat available with term expiring 03/2023. Shelley Kaup has interviewed the applicants below and would like to propose adding an additional alternate seat to the Arts & Culture Board with a term expiring 03/2025.

Applicants:

Kyle Jones (Reappointment Application)

Jordan Callier

Jacqui Edelman

Pamela Bell

Karen Barbee Ty Hesse (Youth Representative)

Issues: None.

Staff Recommendation: Staff defers to City Council.

Arts and Culture Board Application

Thank you for your interest and time commitment in serving your community. Please complete all questions on this application.

Personal Information

1. Name *

Jacqui Edelmann

2. Home Address *

605 Highlands Dr Glenwood Springs, CO 81601

3. Mailing Address *

same

4. Home Phone *

970-319-6699

5. Work Phone *

NA

6. Mobile Phone *

970-319-6699

7. Email Address *

jacquioe@gmail.com

8. Occupation *

Retired teacher

Personal and Professional Interests

9. Why are you interested in serving on the Arts and Culture Board? *

Having a robust arts and cultural representation enhances the life and energy of our community, its citizens, and visitors. I believe I can help further that vision by incorporating and implementing the creative ideas and interests of stakeholders in GWS.

10. What do you view as your role if selected as a member of the Arts and Culture Board? *

I would like to expand performance opportunities for professionals and amateurs and to that end would like to meet with local groups to see what their needs and ideas are.

11. Do you have marketing, advertising, or public relations experience or skills? *

I have done a few radio and newspaper interviews and studied journalism and advertising in college (a long time ago)

12. Do you have Arts/Culture experience or skills? (ex. Performing arts, visual arts, public arts, museums arts, or education? *

I am a musical theatre director/ choreographer having worked in the valley with Aspen Community Theatre, SOL, and regularly with LCA (formerly The Garden School). I also have worked professionally as a dancer in the US and the Canary Islands.

13. Can you describe an experience making a decision based on public opinion? *

I am very concerned with the proposed expansion of the mining industry in West Glenwood and have relied heavily on public opinion to form my own.

14. Can you separate yourself from your personal opinions and represent the City's goals, policies, plans, and the Glenwood Springs Municipal Code in an equitable fashion? *

I would need to know what the City's goals, policies, and plans are in order to answer this question. I would always deal with everyone in a just and fair manner.

15. Do you have any existing time commitments that will hamper your ability to serve? *

No.

16. What experience do you have working with people on a board, commission, or committee? *

Mostly working with production teams for a play.

17. Please select today's date. *

10/29/2021	
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18. Have you served on the Arts and Culture Board before? *

☒ No

☐ Yes

Powers and Duties of the Arts and Culture Board

(as defined in Title 020 of the Glenwood Springs Municipal Code)

Composition of the Arts and Culture Board

(14) Arts and Culture Board:

a. Eight (8) members, at least five (5) of which are residents of the City, three (3) of which may reside outside of the City, and one (1) of which being a youth representative under the age of eighteen (18) or not having completed his or her final year of high school. Those representatives residing outside of the City must reside within the 81601 postal zip code area, own real property or a business within the City, or attend school within the City.

Powers and Duties

(n) Arts and Culture Board. The powers and duties of the Arts and Culture Board shall be:

- 1) To promote awareness, access, and appreciation of the fine, performing, and practical arts for City residents and visitors.
 - 2) To advise the City Council in connection with all matters relating to the artistic and cultural development of the City.
 - 3) To provide opportunities for cultural and art experience and education for children and adults.
 - 4) To promote increased interaction among artists and opportunities for growth and exposure.
 - 5) To promote knowledge and appreciation for cultural forms of artistic expression.
 - 6) To make recommendations to the City Council with respect to annual budget appropriations for the arts.
 - 7) To advise and consult with local arts groups as requested by such groups or by the City Council.
-

Appointment, Removal, Term and Vacancies of Boards and Commissions

Glenwood Springs, CO Municipal Code 020.020.040

(a) Appointment and term of members. Except as otherwise provided, all appointments to the boards and commissions shall be by the City Council for terms of three (3) years each, and each member shall serve until his/her successor is appointed and takes office; provided, however, that the initial terms of office may be shortened by the City Council so as to provide overlapping terms of office. Appointments shall expire the day before the first regular meeting of the City Council in each month according to the following schedule:

(2) March:

Arts and Culture Board;

(b) Alternate members. The City Council at its discretion may appoint up to three (3) persons as alternate members for each board or commission. If a regular member of a board or commission is to be absent from a meeting, the presiding officer for the meeting may select an alternate member to fill such absence and to attend and serve at the meeting. The alternate member may exercise all powers at the meeting which the absent regular member could exercise, and the alternate's powers and privileges shall terminate at the end of the meeting attended. The presiding officer may at his/her discretion select the same alternate to serve at successive meetings in the absence of any member.

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(e) Vacancies. The City Council shall fill all vacancies on boards and commissions by appointment for the unexpired term.

(Code 1971 §§ 2-63, 2-64, 2-67; 6-95 § 1; 10-07 § 2; Ord. No. 9-2018 , § 2, 4-20-2018)



Respondent

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8

Anonymous

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53:26

Time to complete

Arts and Culture Board Application

Thank you for your interest and time commitment in serving your community. Please complete all questions on this application.

Personal Information

1. Name *

Jordan Callier

2. Home Address *

280 Black Bear Gypsum, CO 81637

3. Mailing Address *

PO Box 894 Glenwood Springs, CO 81602

4. Home Phone *

9703796744

5. Work Phone *

9703796744

6. Mobile Phone *

9703796744

7. Email Address *

jordan@etc.media

8. Occupation *

Owner and creative director of etcetera media, LLC. 812 Grand Ave., Ste. 215 Glenwood Springs, CO 81601 ——— Adjunct Instructor Walter Isaacson School of New Media Colorado Mountain College

Personal and Professional Interests

9. Why are you interested in serving on the Arts and Culture Board? *

Arts and culture are essential to my life, livelihood, and worldview. I hold multiple degrees in design, journalism, communication and even French. My business is also a design and marketing agency in downtown Glenwood Springs, and I teach related concepts at Colorado Mountain College. I am also fifth-generation in Aspen and the Roaring Fork Valley (Gerbaz family), and I was raised in Glenwood Springs. I came back here after college and graduate school to make a life for myself in the aforementioned fields. Arts and culture are everything to me, and Glenwood Springs is in my blood. With my background, I know I can offer a credible and respectful voice to the board to help shape and enliven the vibrancy of our creative potential. I have so many ideas that have percolated over the years. This is full circle. It may sound simple or trite, but I believe art and good design could fundamentally change the world by solving so many problems. So why not start here at home? I believe I can do that.

10. What do you view as your role if selected as a member of the Arts and Culture Board? *

I understand this community, and can respect it's traditions, yet I have a unique perspective through my education and life experience. I foresee my role as being a balance between tradition and innovation. I would be an honest voice, with bonafide credentials, while being sensitive to the soul of our city. Perhaps an apt title would be "possibilities consultant?" Maybe we need to be visionaries? I'd love to imagine an artful future that also preserves the noble character of our past. Just think of the possibilities.

11. Do you have marketing, advertising, or public relations experience or skills? *

Please see above. I hold multiple degrees in these areas, and I also have 13 years of professional experience ranging from teaching, agency work, and entrepreneurship. I can also supply a resumé.

12. Do you have Arts/Culture experience or skills? (ex. Performing arts, visual arts, public arts, museums arts, or education? *

First, I would like to mention my experience as a freelance columnist at the Post Independent. For a little more than a year, I wrote a bi-weekly food column for our paper where I researched, collected, prepared, photographed and wrote about culinary topics. I also tied each column to a personal story or community connection, because food brings us all together. Second, I used to take ballet and dance classes and would publicly perform in the halcyon days of my early 20s. That was just for fun and the good of my soul. I have been an art director, performer, photographer, artist, designer and even a food columnist.

13. Can you describe an experience making a decision based on public opinion? *

Generally speaking, I have this experience through various digital marketing campaigns I've conducted. When initially starting such a campaign on social media, crafting content is kind of like throwing spaghetti against the wall to see what will stick. One generally has an idea of what topics will interest followers, but this only becomes solidified through the trial and error of analytics and metrics. Simply put, if followers love or feel the content, then they will interact with it. Conversely, if they don't care and are indifferent, then the content will be dead weight. Such campaigns are often winnowed and even dictated by public opinion.

14. Can you separate yourself from your personal opinions and represent the City's goals, policies, plans, and the Glenwood Springs Municipal Code in an equitable fashion? *

Yes, and this is a skill I hope to demonstrate across many areas of my life. I will share my opinions with honesty, but I think this is a collaborative environment. And I'm certainly not looking to run amuck of local goals, policies, plans and so forth. I strive to hold my own ideas while being open to dissension and disagreement. It is important to speak truthfully about what we think is best at all times, but we must also know when to stay in our lanes and compromise, because so many issues are chromatic and not black-and-white or even right or wrong.

15. Do you have any existing time commitments that will hamper your ability to serve? *

My teaching schedule varies every semester, but I may also have some flexibility thanks to distance learning options on the dates when the board meets.

16. What experience do you have working with people on a board, commission, or committee? *

I was chairman and administrator of the GLBT Resource Board at the University of Northern Colorado for the 2007-08 academic year. I currently sit on the Isaacson School board at Colorado Mountain College.

17. Please select today's date. *

10/29/2021



18. Have you served on the Arts and Culture Board before? *

☒ No

☐ Yes

Powers and Duties of the Arts and Culture Board

(as defined in Title 020 of the Glenwood Springs Municipal Code)

Composition of the Arts and Culture Board

(14) Arts and Culture Board:

a. Eight (8) members, at least five (5) of which are residents of the City, three (3) of which may reside outside of the City, and one (1) of which being a youth representative under the age of eighteen (18) or not having completed his or her final year of high school. Those representatives residing outside of the City must reside within the 81601 postal zip code area, own real property or a business within the City, or attend school within the City.

Powers and Duties

(n) Arts and Culture Board. The powers and duties of the Arts and Culture Board shall be:

- 1) To promote awareness, access, and appreciation of the fine, performing, and practical arts for City residents and visitors.
 - 2) To advise the City Council in connection with all matters relating to the artistic and cultural development of the City.
 - 3) To provide opportunities for cultural and art experience and education for children and adults.
 - 4) To promote increased interaction among artists and opportunities for growth and exposure.
 - 5) To promote knowledge and appreciation for cultural forms of artistic expression.
 - 6) To make recommendations to the City Council with respect to annual budget appropriations for the arts.
 - 7) To advise and consult with local arts groups as requested by such groups or by the City Council.
-

Appointment, Removal, Term and Vacancies of Boards and Commissions

Glenwood Springs, CO Municipal Code 020.020.040

(a) Appointment and term of members. Except as otherwise provided, all appointments to the boards and commissions shall be by the City Council for terms of three (3) years each, and each member shall serve until his/her successor is appointed and takes office; provided, however, that the initial terms of office may be shortened by the City Council so as to provide overlapping terms of office. Appointments shall expire the day before the first regular meeting of the City Council in each month according to the following schedule:

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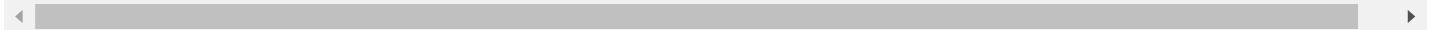
to be absent from a meeting, the presiding officer for the meeting may select an alternate member to fill such absence and to attend and serve at the meeting. The alternate member may exercise all powers at the meeting which the absent regular member could exercise, and the alternate's powers and privileges shall terminate at the end of the meeting attended. The presiding officer may at his/her discretion select the same alternate to serve at successive meetings in the absence of any member.

(c) Limit to term of members. No board member shall serve more than two (2) successive terms on the same board or commission.

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(Code 1971 §§ 2-63, 2-64, 2-67; 6-95 § 1; 10-07 § 2; Ord. No. 9-2018 , § 2, 4-20-2018)



Arts and Culture Board Application

Thank you for your interest and time commitment in serving your community. Please complete all questions on this application.

Personal Information

1. Name *

Karen Barbee

2. Home Address *

1122 Cooper Ave. Glenwood Springs, CO

3. Mailing Address *

1122 Cooper Ave. Glenwood Springs, CO

4. Home Phone *

970-618-9409

5. Work Phone *

970-618-9409

6. Mobile Phone *

970-618-9409

7. Email Address *

kfbarbee02@gmail.com

8. Occupation *

retired teacher, writer

Personal and Professional Interests

9. Why are you interested in serving on the Arts and Culture Board? *

I grew up in Glenwood, living here since 1967. Creative expression has been an active part of my life from as far back as I can remember, with my grandfather teaching me to draw, my mother to sew, my father to see the world uniquely and write it. I see art as one of the vital aspects of being human, allowing us to express life's energy in ways as unique as our thumbprints. Through art culture is seen and preserved. Now that I am done with teaching, I want to be a part of making art a visible and experienced aspect of Glenwood Springs, for the local population as well as for those who visit our community.

10. What do you view as your role if selected as a member of the Arts and Culture Board? *

As a board member, I would work to fulfill the mission, helping to successfully fulfill the plan through idea generating, fiscal responsibility, and determining the logical details that need to be put into place and acted upon. I have experience being on a non-profit board and understand that one of the most important skills each board member must have is the ability to communicate effectively so that time is used well and energy and effort net action that brings to life the mission. In this case, various forms of art being the modality to bring people together and enliven rich connection between them. Because I have spent my life here, I have an appreciation for the values and the people of our community and I understand the need for the board to help with keeping the arts and culture of the community financially sound and stable so that they are an integral part of what makes living in Glenwood Springs nourishing and rewarding. I would hold this role with a fiduciary duty to the people of Glenwood Springs and the heartbeat of the arts.

11. Do you have marketing, advertising, or public relations experience or skills? *

I have worked with people for my entire career life, as an educator and a business owner. My business was in mediation, restorative justice, and communication trainings.

12. Do you have Arts/Culture experience or skills? (ex. Performing arts, visual arts, public arts, museums arts, or education? *

I have been involved in the arts my entire life from 10 years of ballet training, professional baker (wedding and celebration cakes, included), silversmithing, fiber arts, and writing (creative/poetry).

13. Can you describe an experience making a decision based on public opinion? *

I have been on two boards prior: KDNK and the Colorado Coalition for Restorative Justice Practices (CCRJP). While on CCRJP we needed to decide the role of this board in understanding the needs entities that were offering RJ and make decisions as to the direction and action of the board as a result. We also needed to discuss the board's role of holding these entities accountable to the mission of restorative justice practices.

14. Can you separate yourself from your personal opinions and represent the City's goals, policies, plans, and the Glenwood Springs Municipal Code in an equitable fashion? *

Yes. It is imperative that any board member understands and acts as a fiduciary for the work of their committee.

15. Do you have any existing time commitments that will hamper your ability to serve? *

No. I have waited until now to seek this position so that I can give my attention to the commitment.

16. What experience do you have working with people on a board, commission, or committee? *

While a teacher I was on the committee that represented the teachers as the district was reviewing policy; trained and led two monthly Critical Friends meetings (teachers bringing difficult issues to the table with the goal to generate ideas to address them); facilitated a meeting between parents, teachers, and principal to address concerns; sat on multiple committees to address direction of school (Basalt Elementary when they were looking at being a bilingual school, for example). As a business owner I sat on the KDNK Board as president and on the CCRJP Board in the Education Chair.

17. Please select today's date. *

11/2/2021



18. Have you served on the Arts and Culture Board before? *

☒ No

☐ Yes

Powers and Duties of the Arts and Culture Board

(as defined in Title 020 of the Glenwood Springs Municipal Code)

Composition of the Arts and Culture Board

(14) Arts and Culture Board:

a. Eight (8) members, at least five (5) of which are residents of the City, three (3) of which may reside outside of the City, and one (1) of which being a youth representative under the age of eighteen (18) or not having completed his or her final year of high school. Those representatives residing outside of the City must reside within the 81601 postal zip code area, own real property or a business within the City, or attend school within the City.

Powers and Duties

(n) Arts and Culture Board. The powers and duties of the Arts and Culture Board shall be:

- 1) To promote awareness, access, and appreciation of the fine, performing, and practical arts for City residents and visitors.
- 2) To advise the City Council in connection with all matters relating to the artistic and cultural development of the City.
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Arts and Culture Board;

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of any member.

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Arts and Culture Board Application

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(as defined in Title 020 of the Glenwood Springs Municipal Code)

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Personal Information

1. Membership Qualifications *

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- ☒ Resident of Glenwood Springs within city limits.
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- ☐ Owner of real property or a business within Glenwood Springs city limits.
- ☐ Youth resident (under the age of 18) within the 81601 zip code or attending school within city limits.

2. Name *

Kyle Jones

3. Home Address *

12 Ptarmigan Dr

4. Mailing Address *

12 Ptarmigan Dr

5. Home Phone *

7202056151

6. Work Phone *

7202056151

7. Mobile Phone *

7202056151

8. Email Address *

knjonesco@gmail.com

9. Occupation *

Pianist/Music Educator/Ski Pro

Personal and Professional Interests

10. Why are you interested in serving on the Arts and Culture Board? *

I care deeply about the success of the arts in this community and believe that a strong foundation needs to be laid now or it will never have a chance.

11. What do you view as your role if selected as a member of the Arts and Culture Board? *

Music advisor

12. Do you have marketing, advertising, or public relations experience or skills? *

Yes, officer on multiple non profits and political organizations.

13. Do you have Arts/Culture experience or skills? (ex. Performing arts, visual arts, public arts, museums arts, or education? *

Loads of it. Performing arts, music, theater, visual arts, dance

14. Can you describe an experience making a decision based on public opinion? *

Yes

15. Can you separate yourself from your personal opinions and represent the City's goals, policies, plans, and the Glenwood Springs Municipal Code in an equitable fashion? *

Yes

16. Do you have any existing time commitments that will hamper your ability to serve? *

Possibly, depends on regularity

17. What experience do you have working with people on a board, commission, or committee? *

Serve on multiple non profit boards and have been on this board as well

18. Please select today's date. *

1/6/2022



19. Have you served on the Arts and Culture Board before? *

☐ No

☒ Yes

Reappointment Applicants

20. Why do you think you should be reappointed? *

I've brought a perspective and experience no one else possesses concerning music

21. Have you served two full successive terms on the Arts and Culture Board? *

Powers and Duties of the Arts and Culture Board

(as defined in Title 020 of the Glenwood Springs Municipal Code)

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-

Appointment, Removal, Term and Vacancies of Boards and Commissions

(Per the Glenwood Springs, CO Municipal Code 020.020.040)

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(Code 1971 §§ 2-63, 2-64, 2-67; 6-95 § 1; 10-07 § 2; Ord. No. 9-2018 , § 2, 4-20-2018)



Respondent

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10

Anonymous

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222:37

Time to complete

Arts and Culture Board Application

Thank you for your interest and time commitment in serving your community. Please complete all questions on this application.

Composition of the Arts and Culture Board
(as defined in Title 020 of the Glenwood Springs Municipal Code)

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Personal Information

1. Membership Qualifications *

You must qualify with one of the options below to be eligible to serve on the Arts and Culture Board. Please select the option that applies to you.

- ☒ Resident of Glenwood Springs within city limits.
- ☐ Resident outside of Glenwood Springs city limits, but within the 81601 zip code.
- ☐ Owner of real property or a business within Glenwood Springs city limits.
- ☒ Youth resident (under the age of 18) within the 81601 zip code or attending school within city limits.

2. Name *

Ty Hesse

3. Home Address *

1306 Mountain Drive Glenwood Springs, CO 81601

4. Mailing Address *

1306 Mountain Drive Glenwood Springs, CO 81601

5. Home Phone *

970-945-9048

6. Work Phone *

970-379-9825

7. Mobile Phone *

970-379-9825

8. Email Address *

ty31147@rfschools.com

9. Occupation *

Student

Personal and Professional Interests

10. Why are you interested in serving on the Arts and Culture Board? *

I am very interested in serving on this board because I want to give back to my community and help improve Glenwood Springs. In addition, I am interested in helping to promote art and culture in Glenwood.

11. What do you view as your role if selected as a member of the Arts and Culture Board? *

As a youth member of this board, I see myself providing a unique perspective on teen interests. I know and understand the perspective of teens, and can help the board understand what can draw more teens to arts and culture opportunities.

12. Do you have marketing, advertising, or public relations experience or skills? *

Since I am a freshman in high school, I do not yet have experience in these fields. I look forward to opportunities to learn about these topics in the future.

13. Do you have Arts/Culture experience or skills? (ex. Performing arts, visual arts, public arts, museums arts, or education? *

I have played the piano for eight years and really enjoy it. In addition, I enjoy going to art museums and love making art.

14. Can you describe an experience making a decision based on public opinion? *

As the captain of my soccer team, I have relayed suggestions to my coach based on the opinions of my teammates. These may not have been my personal opinions, but it was my responsibility to tell the coach about the team's thoughts.

15. Can you separate yourself from your personal opinions and represent the City's goals, policies, plans, and the Glenwood Springs Municipal Code in an equitable fashion? *

I am able to put aside my personal opinions to work to serve the City of Glenwood Springs.

16. Do you have any existing time commitments that will hamper your ability to serve? *

I will not have any time commitments that will prevent me from serving. I participate in sports and extracurricular activities, but I be able to make it to most meetings.

17. What experience do you have working with people on a board, commission, or committee? *

I am an active member of the Glenwood Springs High School Student Council and Key Club (a public service club). In addition, I partipate regularly in projects with Roaring Fork Outdoor Volunteers and have served as a volunteer educator-in-training at the Aspen Center for Environmental Studies.

18. Please select today's date. *

11/22/2021



19. Have you served on the Arts and Culture Board before? *

☒ No

☐ Yes

Powers and Duties of the Arts and Culture Board

(as defined in Title 020 of the Glenwood Springs Municipal Code)

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-

Appointment, Removal, Term and Vacancies of Boards and Commissions

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(Code 1971 §§ 2-63, 2-64, 2-67; 6-95 § 1; 10-07 § 2; Ord. No. 9-2018 , § 2, 4-20-2018)



Arts and Culture Board Application

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Composition of the Arts and Culture Board

(as defined in Title 020 of the Glenwood Springs Municipal Code)

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Personal Information

1. Membership Qualifications *

You must qualify with one of the options below to be eligible to serve on the Arts and Culture Board. Please select the option that applies to you.

- ☒ Resident of Glenwood Springs within city limits.
- ☐ Resident outside of Glenwood Springs city limits, but within the 81601 zip code.
- ☐ Owner of real property or a business within Glenwood Springs city limits.
- ☐ Youth resident (under the age of 18) within the 81601 zip code or attending school within city limits.

2. Name *

Pamela Bell

3. Home Address *

6105 Sunset Ridge Ct, Glenwood Springs, CO 81601

4. Mailing Address *

6105 Sunset Ridge Ct, Glenwood Springs, CO 81601

5. Home Phone *

904-613-2899

6. Work Phone *

n/a

7. Mobile Phone *

904-613-2899

8. Email Address *

pamelabell.nrl@gmail.com

9. Occupation *

Consultant

Personal and Professional Interests

10. Why are you interested in serving on the Arts and Culture Board? *

The city of Glenwood Springs is a unique, vibrant community waiting to take shape. Between the aesthetically pleasing architecture and vibrant history that fills the community, the missing ingredient is a strong Arts and Culture scene. By strategically implementing a multitude of audiovisual stimuli, Glenwood Springs will become a bustling hub of creative, emergent energy - drawing people out of their homes whilst shining a spotlight on the area for all the right reasons. Since childhood, I've always been passionate about the Arts and creative expression, which led to immersing myself in many different artistic realms in hopes of finding the creative outlet destined for me. As it turns out, I did not blow through hobbies like a Rolodex searching for "the hobby". Rather, I accumulated a plethora of knowledge, interests, and skill by curating each talent to the best of my abilities. From woodburning to acrylic paints and resin pouring, to practicing the equally expressive, ballet, tap, jazz, hip hop forms of dance for over a decade, in addition to drama, theater, and Broadway-style production performance, as well as competing in Miss USA Pageant system, I always find myself drawn towards artistic self-expression. This past July, I had the honor of walking the runway for Miami Swim Week fashion show production, embodying the ethereal vision that manifests when creators and art merge as one, showcasing the manifestation of countless hours devoted to crafting their stitch in time. In my adult years, I have found solace in the serenity and hopeful emotions emitted when surrounded by a clean, titillating, and downright inspiring environment. Additionally, I have made a point to conduct my life in a manner that allows vast exposure to a variety of cultures, customs, and people, making me vibrant, and unique - just like Glenwood Springs. I believe I would be an excellent asset to the board due to my ability to draw character out of the woodworks in a way that resonates deeply with the people.

11. What do you view as your role if selected as a member of the Arts and Culture Board? *

If selected as a member of the Arts and Culture Board, I see my role as a leader in the community, responsible for liaising on behalf of the community to ensure accessibility and opportunity for all. I believe the arts are one of the backbones of society because increased education, opportunity, and self-expression directly correlate to a prosperous community; economically, professionally, culturally, and socially.

12. Do you have marketing, advertising, or public relations experience or skills? *

Yes, I have acquired extensive marketing, advertising, and public relations skills throughout my career. From developing websites and social media accounts, designing company logos,

business cards, and event flyers, to hosting new employee orientation and delivering presentations of reference materials and consultant knowledge for internal & client education, I am capable of producing desired outcomes in any facet. I have a breadth of technological experience and a genuine curiosity to try things in a way in which has not been done before. I am willing and able to step up and fill the role where I am most needed.

13. Do you have Arts/Culture experience or skills? (ex. Performing arts, visual arts, public arts, museums arts, or education? *

Yes. I have participated in the performing arts for dance and theater, as well as fashion runway, pageantry, and volunteering for AmeriCorps Vista for City of Austin, Parks and Recreation Department, educating children and providing opportunities for fun & enrichment.

14. Can you describe an experience making a decision based on public opinion? *

I cannot think of a relevant instance, however, I am excellent at communicating both sides of an issue with clarity to ensure the public has the information needed to make an informed decision.

15. Can you separate yourself from your personal opinions and represent the City's goals, policies, plans, and the Glenwood Springs Municipal Code in an equitable fashion? *

Yes. As a member of the Board, I understand it is my responsibility to represent the City of Glenwood Springs to the best of my ability, on and off the clock. I accept that I can not always be the decision-maker or the final word, to which I have no problem, as I am applying to the Board with the intent of being a grand contributor, not a grand dictator.

16. Do you have any existing time commitments that will hamper your ability to serve? *

I currently have a full-time job as a consultant for a software company for medical staff credentialing. I work fully remote, and I have a good amount of flexibility in my schedule. It should not hamper my ability to serve if my obligations to the Board are known about with advance notice.

17. What experience do you have working with people on a board, commission, or committee? *

In my professional career, I have often interfaced with the Medical Staff Board at hospitals & surgery centers, and the Joint Commission on Accreditation of Healthcare Organizations.

18. Please select today's date. *

12/4/2021



19. Have you served on the Arts and Culture Board before? *

☒ No

☐ Yes

Powers and Duties of the Arts and Culture Board

(as defined in Title 020 of the Glenwood Springs Municipal Code)

(n) Arts and Culture Board. The powers and duties of the Arts and Culture Board shall be:

- 1) To promote awareness, access, and appreciation of the fine, performing, and practical arts for City residents and visitors.
 - 2) To advise the City Council in connection with all matters relating to the artistic and cultural development of the City.
 - 3) To provide opportunities for cultural and art experience and education for children and adults.
 - 4) To promote increased interaction among artists and opportunities for growth and exposure.
 - 5) To promote knowledge and appreciation for cultural forms of artistic expression.
 - 6) To make recommendations to the City Council with respect to annual budget appropriations for the arts.
 - 7) To advise and consult with local arts groups as requested by such groups or by the City Council.
-

Appointment, Removal, Term and Vacancies of Boards and Commissions

(Per the Glenwood Springs, CO Municipal Code 020.020.040)

(a) Appointment and term of members. Except as otherwise provided, all appointments to the boards and commissions shall be by the City Council for terms of three (3) years each, and each member shall serve until his/her successor is appointed and takes office; provided, however, that the initial terms of office may be shortened by the City Council so as to provide overlapping terms of office. Appointments shall expire the day before the first regular meeting of the City Council in each month according to the following schedule:

March:

Arts and Culture Board;

(b) Alternate members. The City Council at its discretion may appoint up to three (3) persons as alternate members for each board or commission. If a regular member of a board or commission is to be absent from a meeting, the presiding officer for the meeting may select an alternate member to fill such absence and to attend and serve at the meeting. The alternate member may exercise all powers at the meeting which the absent regular member could exercise, and the alternate's powers and privileges shall terminate at the end of the meeting attended. The presiding officer may at his/her discretion select the same alternate to serve at successive meetings in the absence of any member.

(c) Limit to term of members. No board member shall serve more than two (2) successive terms on the same board or commission.

(d) Removal of members. All appointed members of a board or commission shall be subject to removal, at any time, by the City Council. In the event an appointed member of a board or commission ceases to qualify for membership, his or her appointment is immediately terminated.

(e) Vacancies. The City Council shall fill all vacancies on boards and commissions by appointment for the unexpired term.

(Code 1971 §§ 2-63, 2-64, 2-67; 6-95 § 1; 10-07 § 2; Ord. No. 9-2018 , § 2, 4-20-2018)





City Council
STAFF REPORT
City of Glenwood Springs
February 3, 2022

Agenda Item: Housing Commission Appointments

Action Requested: Housing Commission Appointments

Department: City Administration

Strategic Goals: Protect and Preserve our Quality of Life
Generate Sustainable Economic Development

Background Info: Giovanna Kennedy was interviewed on November 11th, and deemed eligible for appointment to a regular seat with a term expiring 04/2024.

Annemarie Glenn was interviewed on November 11th and deemed eligible for appointment to a new alternate seat with a term expiring 04/2025.

Issues: None.

Staff Recommendation: Staff defers to City Council.

Housing Commission Application

Thank you for your interest and time commitment in serving your community. Please complete all questions on this application.

Personal Information

1. Name *

Giovanna O. Kennedy

2. Home Address *

3698 Valley View Rd

3. Mailing Address *

3698 Valley View Rd. Glenwood Springs, CO 81601

4. Home Phone *

970.404.7110

5. Work Phone *

970.404.7110

6. Mobile Phone *

970.404.7110

7. Email Address *

Giovanna.Kennedy@gokennedyrealtor.com

8. Occupation *

Real Estate Broker at Aspen Snowmass Sotheby's International Realty

Personal and Professional Interests

9. Why are you interested in serving on the Housing Commission? *

To be able to share my experience and knowledge.

10. What do you view as your role if selected as a member of the Housing Commission? *

A Team player to assure that we move forward.

11. What personal or professional experience do you have relative to the mission of the Housing Commission (see Powers and Duties attached)? *

I am a Real Estate Broker in the Valley, and I live in Glenwood Springs.

12. Have you previously served in any policy advisory capacity relative to Housing? If so, state your role. *

No

13. What do you see as the role that Housing play in the character and function of the Glenwood Springs Community? *

Housing plays an imperative role in our community.

14. Can you separate yourself from your personal opinions and represent the City's goals, policies, plans and the Glenwood Springs Municipal Code in an equitable fashion? *

Yes

15. What experience do you have working with people on a board, commission or committee? *

St Stephen Catholic School - PTA Co-Chair & Past Chair (5 Consecutive years) St Stephen Catholic School - Founder & Chair of Annual Gala Shinning Stars Foundation - Day of Rose Committee member Shinning Stars Foundation - Wine Women & Shoes Committee member

16. Are you able to attend a monthly meeting of the Housing Commission held at 4:00pm on the second Wednesday of each month? *

☒ Yes

☐ No

17. Please select today's date. *

10/23/2021 

18. Have you served on the Housing Commission before? *

☒ No

☐ Yes

Powers and Duties of the Housing Commission

(as defined in Title 020 of the Glenwood Springs Municipal Code)

Composition of the Housing Commission:

(11) Glenwood Springs Housing Commission.

a. Seven (7) citizens, at least six (6) who are residents of the City and one (1) who may reside outside of the City but within the 81601 zip code area or own real property or a business within the City.

Membership should reflect a broad representation of organizations and other entities which are related to housing, including but not limited to the financial community, the building and development community, the real estate industry, and organizations which support low income residents of the community.

(k) Powers and duties of Housing Commission.

The powers and duties of the Housing Commission shall be:

(1) To investigate, study and report to the City Council any and all matters concerning housing issues which directly affect the City, including the preparation of a Comprehensive Housing Affordability Strategy (CHAS).

(2) To assist City Council in defining the nature and scope of housing opportunities in the City.

(3) To meet with the City Council on an annual basis to identify which housing issues require priority attention.

(4) To investigate, study and report to the City Council on grants, donations and other forms of funding to assist in meeting the housing needs of the City.

(5) To perform functions concerning oversight of housing issues or functions as delegated by the City Council, including monitoring the implementation of activities as described in the CHAS.

(6) To appoint subcommittees as necessary to carry out the foregoing functions subject to the approval of the City Council.

Appointment, Removal, Term and Vacancies of Boards and Commissions

Glenwood Springs, CO Municipal Code 020.020.040

(a) Appointment and term of members. Except as otherwise provided, all appointments to the boards and commissions shall be by the City Council for terms of three (3) years each, and each member shall serve until his/her successor is appointed and takes office; provided, however, that the initial terms of office may be shortened by the City Council so as to provide overlapping terms of office. Appointments shall expire the day before the first regular meeting of the City Council in each month according to the following schedule:

(3) April:

Glenwood Springs Housing Commission

(b) Alternate members. The City Council at its discretion may appoint up to three (3) persons as alternate members for each board or commission. If a regular member of a board or commission is to be absent from a meeting, the presiding officer for the meeting may select an alternate member to fill such absence and to attend and serve at the meeting. The alternate member may exercise all powers at the meeting which the absent regular member could exercise, and the alternate's powers and privileges shall terminate at the end of the meeting attended. The presiding officer may at his/her discretion select the same alternate to serve at successive meetings in the absence of any member.

(c) Limit to term of members. No board member shall serve more than two (2) successive terms on the same board or commission.

(d) Removal of members. All appointed members of a board or commission shall be subject to removal, at any time, by the City Council. In the event an appointed member of a board or commission ceases to qualify for membership, his or her appointment is immediately terminated.

(e) Vacancies. The City Council shall fill all vacancies on boards and commissions by appointment for the unexpired term.

(Code 1971 §§ 2-63, 2-64, 2-67; 6-95 § 1; 10-07 § 2; Ord. No. 9-2018 , § 2, 4-20-2018)

Housing Commission Application

Thank you for your interest and time commitment in serving your community. Please complete all questions on this application.

Personal Information

1. Name *

Annemarie Glenn

2. Home Address *

1228 Sprucewood Lane, Glenwood Springs

3. Mailing Address *

1228 Sprucewood Lane, Glenwood Springs 81601

4. Home Phone *

303-888-8051

5. Work Phone *

303-888-8051

6. Mobile Phone *

303-888-8051

7. Email Address *

goldengirl1000@msn.com

8. Occupation *

retired

Personal and Professional Interests

9. Why are you interested in serving on the Housing Commission? *

new to area - want to contribute to community

10. What do you view as your role if selected as a member of the Housing Commission? *

help with housing matters that affect the community

11. What personal or professional experience do you have relative to the mission of the Housing Commission (see Powers and Duties attached)? *

real estate broker for 20 years; owned apartment buildings; managed warehouse properties; owned and operated assisted living homes for the past 25 years on the Eastern Plains.

12. Have you previously served in any policy advisory capacity relative to Housing? If so, state your role. *

No

13. What do you see as the role that Housing play in the character and function of the Glenwood Springs Community? *

with the recent growth in Glenwood Springs I think there is a shortage of affordable housing; have reviewed Glenwood Springs' Comprehensive Plan; would be excited to participate in helping with your strategic housing plan (especially senior housing)

14. Can you separate yourself from your personal opinions and represent the City's goals, policies, plans and the Glenwood Springs Municipal Code in an equitable fashion? *

yes

15. What experience do you have working with people on a board, commission or committee? *

Was President and Director of our 501(c)3 corporation that owned and operated assisted living homes for the past 25 years. Participated as president of the Board of the resident committee where I lived in Golden CO

16. Are you able to attend a monthly meeting of the Housing Commission held at 4:00pm on the second Wednesday of each month? *

☒ Yes

☐ No

17. Please select today's date. *

10/20/2021



18. Have you served on the Housing Commission before? *

☒ No

☐ Yes

Powers and Duties of the Housing Commission

(as defined in Title 020 of the Glenwood Springs Municipal Code)

Composition of the Housing Commission:

(11) Glenwood Springs Housing Commission.

a. Seven (7) citizens, at least six (6) who are residents of the City and one (1) who may reside outside of the City but within the 81601 zip code area or own real property or a business within the City.

Membership should reflect a broad representation of organizations and other entities which are related to housing, including but not limited to the financial community, the building and development community, the real estate industry, and organizations which support low income residents of the community.

(k) Powers and duties of Housing Commission.

The powers and duties of the Housing Commission shall be:

(1) To investigate, study and report to the City Council any and all matters concerning housing issues which directly affect the City, including the preparation of a Comprehensive Housing

Affordability Strategy (CHAS).

- (2) To assist City Council in defining the nature and scope of housing opportunities in the City.
 - (3) To meet with the City Council on an annual basis to identify which housing issues require priority attention.
 - (4) To investigate, study and report to the City Council on grants, donations and other forms of funding to assist in meeting the housing needs of the City.
 - (5) To perform functions concerning oversight of housing issues or functions as delegated by the City Council, including monitoring the implementation of activities as described in the CHAS.
 - (6) To appoint subcommittees as necessary to carry out the foregoing functions subject to the approval of the City Council.
-

Appointment, Removal, Term and Vacancies of Boards and Commissions

Glenwood Springs, CO Municipal Code 020.020.040

- (a) Appointment and term of members. Except as otherwise provided, all appointments to the boards and commissions shall be by the City Council for terms of three (3) years each, and each member shall serve until his/her successor is appointed and takes office; provided, however, that the initial terms of office may be shortened by the City Council so as to provide overlapping terms of office. Appointments shall expire the day before the first regular meeting of the City Council in each month according to the following schedule:
 - (3) April:
Glenwood Springs Housing Commission
- (b) Alternate members. The City Council at its discretion may appoint up to three (3) persons as alternate members for each board or commission. If a regular member of a board or commission is to be absent from a meeting, the presiding officer for the meeting may select an alternate member to fill such absence and to attend and serve at the meeting. The alternate member may exercise all powers at the meeting which the absent regular member could exercise, and the alternate's powers and privileges shall terminate at the end of the meeting attended. The presiding officer may at his/her discretion select the same alternate to serve at successive meetings in the absence of any member.
- (c) Limit to term of members. No board member shall serve more than two (2) successive terms on the same board or commission.
- (d) Removal of members. All appointed members of a board or commission shall be subject to removal, at any time, by the City Council. In the event an appointed member of a board or commission ceases to qualify for membership, his or her appointment is immediately terminated.
- (e) Vacancies. The City Council shall fill all vacancies on boards and commissions by appointment

for the unexpired term.

(Code 1971 §§ 2-63, 2-64, 2-67; 6-95 § 1; 10-07 § 2; Ord. No. 9-2018 , § 2, 4-20-2018)



City Council
STAFF REPORT
City of Glenwood Springs
February 3, 2022

Agenda Item: Historic Preservation Commission Appointments

Action Requested: Historic Preservation Commission Appointments

Department: City Administration

Strategic Goals: Protect and Preserve our Quality of Life

Background Info: The Historic Preservation Commission currently has two vacant regular seats.

- Grant Stevens was appointed as an alternate in May 2021. He was interviewed by Councilor Hershey on December 6th, and was deemed eligible for appointment to a regular seat with a to fill term expiring April 2023.
- James Larson was interviewed by Councilor Hershey on December 6th, and was deemed eligible for appointment to a regular seat with a to fill term expiring April 2022.
- Marianne Ackerman was interviewed by Councilor Hershey on December 6th, and was deemed eligible for appointment to an alternate seat with a to fill term expiring April 2024.

Issues: None

Staff Recommendation: Staff defers to City Council

Respondent

<

2

Anonymous

>

15:35

Time to complete

Historic Preservation Commission Application

Thank you for your interest and time commitment in serving your community. Please complete all questions on this application.

Personal Information

1. Name *

Grant Stevens

2. Home Address *

713 Palmer Ave. #2, soon to be 819 Grand #1 Glenwood Springs, CO 81601

3. Mailing Address *

713 Palmer Ave. #2, soon to be 819 Grand #1 Glenwood Springs, CO 81601

4. Home Phone *

NA

5. Work Phone *

(970) 963-3977

6. Mobile Phone *

(319) 427-0260

7. Email Address *

grant.r.stevens@gmail.com

8. Occupation *

Communications Director, Wilderness Workshop

Personal and Professional Interests

9. Why are you interested in serving on the Historic Preservation Commission? *

I have a personal interest in Historic Preservation, having grown up in a Main Street Community and working at the National Trust for Historic Preservation (national nonprofit advocacy organization). Historic places should reflect the diversity of a community; they provide a valuable way to understand the past and look towards the future.

10. What do you view as your role if selected as a member to the Historic Preservation Commission? *

To regulate the city's 22 designated landmarks, support the designation of new landmarks, and increase awareness of the city's unique history.

11. Do you have any professional experience in one of the following disciplines: architecture, landscape architecture, architectural history, history, archaeology, planning, geography, anthropology, building trades, law, or real estate? (Note - professional experience in these fields is not a requirement for appointment to the commission.) *

My 7 years at the National Trust for Historic Preservation were in the Marketing Department, so I have a basic understanding of architectural history and history, but no formal training (only lots of enthusiasm!).

12. Please list degrees received, school/college/university attended and area of study. *

Coe College (Cedar Rapids, IA) - Bachelors Degree (Political Science & American Studies),
2011 Vermont Law School (South Royalton, VT) - Masters in Environmental Law & Policy,
2019

13. The Historic Preservation Commission generally attends one meeting a month in the evening. Do you have any existing time commitments that will hamper your ability to serve? *

No

14. What experience do you have working with people on a board, commission, or committee? *

In my roles at the National Trust for Historic Preservation and now at the Wilderness Workshop, I regularly work with Boards, Committees, and elected officials.

15. Please select today's date. *

4/4/2021



16. Have you served on the Historic Preservation Board before? *

☒ No

☐ Yes

Powers and Duties of the Historic Preservation Commission

(as defined in Title 020 of the Glenwood Springs Municipal Code)

Composition of the Historic Preservation Commission:

a. Seven (7) citizens, at least six (6) who are residents of the City and one (1) who may reside outside of the City but within the 81601 zip code area or own real property or a business with in the City.

Powers and Duties:

(I) Powers and Duties of Historic Preservation Commission. The powers and duties of the Historic Preservation Commission shall be:

(1) To recommend to City Council methods for the protection and preservation of the City's historic and cultural heritage, including, but not limited to, the designation of historic landmarks and districts by appropriate regulations.

(2) To recommend to City Council methods for enhancing property values and the stabilization of historic neighborhoods.

(3) To recommend to City Council methods for increasing economic and financial benefits, including, but not limited to, City attractions.

(4) To provide educational opportunities to increase public appreciation of the City's unique heritage.

(5) To do any other tasks related to the historic preservation of resources in the community of Glenwood Springs.

Appointment, Removal, Term and Vacancies of Boards and Commissions

Glenwood Springs, CO Municipal Code 020.020.040

(a) Appointment and term of members. Except as otherwise provided, all appointments to the boards and commissions shall be by the City Council for terms of three (3) years each, and each member shall serve until his/her successor is appointed and takes office; provided, however, that the initial terms of office may be shortened by the City Council so as to provide overlapping terms of office. Appointments shall expire the day before the first regular meeting of the City Council in each month according to the following schedule:

(1) February:

Planning and Zoning Commission;
Finance Advisory Board;
Tourism Promotion Board;
Building Board of Appeals.

(2) March:

Transportation Commission;
Arts and Culture Board;
Parks and Recreation Commission;
Airport Board;
River Commission.

(3) April:

Local Liquor Licensing Authority;
Victim's Witnesses Assistance and Law Enforcement Board;
Historic Preservation Commission;
Glenwood Springs Housing Commission.

(b) Alternate members. The City Council at its discretion may appoint up to three (3) persons as alternate members for each board or commission. If a regular member of a board or commission is to be absent from a meeting, the presiding officer for the meeting may select an alternate member to fill such absence and to attend and serve at the meeting. The alternate member may exercise all powers at the meeting which the absent regular member could exercise, and the alternate's powers and privileges shall terminate at the end of the meeting attended. The presiding officer may at his/her discretion select the same alternate to serve at successive meetings in the absence of any member.

(c) Limit to term of members. No Board member shall serve more than two (2) terms on the same board or commission.

(d) Removal of members. All appointed members of a board or commission shall be subject to removal, at any time, by the City Council. In the event an appointed member of a board or commission ceases to qualify for membership, his or her appointment is immediately terminated.

(e) Vacancies. The City Council shall fill all vacancies on boards and commissions by appointment for the unexpired term.

(Code 1971 §§ 2-63, 2-64, 2-67; 6-95 § 1; 10-07 § 2; Ord. No. 9-2018 , § 2, 4-20-2018)

Historic Preservation Commission Application

Thank you for your interest and time commitment in serving your community. Please complete all questions on this application.

Personal Information

1. Name *

James Larson

2. Home Address *

300 Wulfsohn Rd. E205 Glenwood Springs, CO 81601

3. Mailing Address *

sames

4. Home Phone *

513-400-7322

5. Work Phone *

970-625-4270

6. Mobile Phone *

513-400-7322

7. Email Address *

jjl3872@hotmail.com

8. Occupation *

Marketing and Communications Director Garfield County Public Libraries

Personal and Professional Interests

9. Why are you interested in serving on the Historic Preservation Commission? *

Most notably, I love history, particularly local history that often goes unnoticed and not preserved. Way back in college, I was a history major which gave me a lifelong passion for learning whatever I can, whenever I can about local, state, national and world history. As a librarian, I see how stories and artifacts easily get lost in time especially culturally relevant materials from underrepresented populations within the community.

10. What do you view as your role if selected as a member to the Historic Preservation Commission? *

I recently worked with Carolyn in a minor capacity on a SIPA grant to digitize deteriorating archives of the Avalanche Echo newspaper. I believe that my capacity and connections as a

librarian can help continue the digitization of important historical records and preservation of other artifacts. My experience in marketing can help promote these collections to the citizens of Glenwood Springs in order to encourage exploration of our past.

11. Do you have any professional experience in one of the following disciplines: architecture, landscape architecture, architectural history, history, archaeology, planning, geography, anthropology, building trades, law, or real estate? (Note - professional experience in these fields is not a requirement for appointment to the commission.) *

history, library cataloging, archiving and research

12. Please list degrees received, school/college/university attended and area of study. *

Indiana University -BA in French and History University of Alabama - Master's of Library and Information Science

13. The Historic Preservation Commission generally attends one meeting a month in the evening. Do you have any existing time commitments that will hamper your ability to serve? *

I do not.

14. What experience do you have working with people on a board, commission, or committee? *

My experience has been within the business world frequently working on committees for strategic planning, budgeting and analysis.

15. Please select today's date. *

11/5/2021



16. Have you served on the Historic Preservation Board before? *

☒ No

☐ Yes

Powers and Duties of the Historic Preservation Commission

(as defined in Title 020 of the Glenwood Springs Municipal Code)

Composition of the Historic Preservation Commission:

a. Seven (7) citizens, at least six (6) who are residents of the City and one (1) who may reside outside of the City but within the 81601 zip code area or own real property or a business with in the City.

Powers and Duties:

(I) Powers and Duties of Historic Preservation Commission. The powers and duties of the Historic Preservation Commission shall be:

(1) To recommend to City Council methods for the protection and preservation of the City's historic and cultural heritage, including, but not limited to, the designation of historic landmarks and districts by appropriate regulations.

(2) To recommend to City Council methods for enhancing property values and the stabilization of historic neighborhoods.

(3) To recommend to City Council methods for increasing economic and financial benefits, including, but not limited to, City attractions.

(4) To provide educational opportunities to increase public appreciation of the City's unique heritage.

(5) To do any other tasks related to the historic preservation of resources in the community of Glenwood Springs.

Appointment, Removal, Term and Vacancies of Boards and Commissions

(a) Appointment and term of members. Except as otherwise provided, all appointments to the boards and commissions shall be by the City Council for terms of three (3) years each, and each member shall serve until his/her successor is appointed and takes office; provided, however, that the initial terms of office may be shortened by the City Council so as to provide overlapping terms of office. Appointments shall expire the day before the first regular meeting of the City Council in each month according to the following schedule:

(3) April:

Historic Preservation Commission;

(b) Alternate members. The City Council at its discretion may appoint up to three (3) persons as alternate members for each board or commission. If a regular member of a board or commission is to be absent from a meeting, the presiding officer for the meeting may select an alternate member to fill such absence and to attend and serve at the meeting. The alternate member may exercise all powers at the meeting which the absent regular member could exercise, and the alternate's powers and privileges shall terminate at the end of the meeting attended. The presiding officer may at his/her discretion select the same alternate to serve at successive meetings in the absence of any member.

(c) Limit to term of members. No board member shall serve more than two (2) successive terms on the same board or commission.

(d) Removal of members. All appointed members of a board or commission shall be subject to removal, at any time, by the City Council. In the event an appointed member of a board or commission ceases to qualify for membership, his or her appointment is immediately terminated.

(e) Vacancies. The City Council shall fill all vacancies on boards and commissions by appointment for the unexpired term.

(Code 1971 §§ 2-63, 2-64, 2-67; 6-95 § 1; 10-07 § 2; Ord. No. 9-2018 , § 2, 4-20-2018)



Respondent



4

Anonymous



04:05

Time to complete



Historic Preservation Commission Application

Thank you for your interest and time commitment in serving your community. Please complete all questions on this application.

Personal Information

1. Name *

Marianne Ackerman

2. Home Address *

1480 oak way avenue

3. Mailing Address *

1480 oak way avenue

4. Home Phone *

970 379 3546

5. Work Phone *

970 947 9300

6. Mobile Phone *

970 379 3546

7. Email Address *

Marianne@propertyshopinc.com

8. Occupation *

Realtor

Personal and Professional Interests

9. Why are you interested in serving on the Historic Preservation Commission? *

I am a native of glenwood springs and am interested in preserving history of area

10. What do you view as your role if selected as a member to the Historic Preservation Commission? *

Historic knowledge.

11. Do you have any professional experience in one of the following disciplines: architecture, landscape architecture, architectural history, history, archaeology, planning, geography, anthropology, building trades, law, or real estate? (Note - professional experience in these fields is not a requirement for appointment to the commission.) *

Real estate and a knowledge of area

12. Please list degrees received, school/college/university attended and area of study. *

A.A.

13. The Historic Preservation Commission generally attends one meeting a month in the evening. Do you have any existing time commitments that will hamper your ability to serve? *

No

14. What experience do you have working with people on a board, commission, or committee? *

On cmc boards,hospital boards

15. Please select today's date. *

10/29/2021



16. Have you served on the Historic Preservation Board before? *

☐ No

Powers and Duties of the Historic Preservation Commission

(as defined in Title 020 of the Glenwood Springs Municipal Code)

Composition of the Historic Preservation Commission:

a. Seven (7) citizens, at least six (6) who are residents of the City and one (1) who may reside outside of the City but within the 81601 zip code area or own real property or a business with in the City.

Powers and Duties:

(l) Powers and Duties of Historic Preservation Commission. The powers and duties of the Historic Preservation Commission shall be:

- (1) To recommend to City Council methods for the protection and preservation of the City's historic and cultural heritage, including, but not limited to, the designation of historic landmarks and districts by appropriate regulations.
 - (2) To recommend to City Council methods for enhancing property values and the stabilization of historic neighborhoods.
 - (3) To recommend to City Council methods for increasing economic and financial benefits, including, but not limited to, City attractions.
 - (4) To provide educational opportunities to increase public appreciation of the City's unique heritage.
 - (5) To do any other tasks related to the historic preservation of resources in the community of Glenwood Springs.
-

Appointment, Removal, Term and Vacancies of Boards and Commissions

Glenwood Springs, CO Municipal Code 020.020.040

(a) Appointment and term of members. Except as otherwise provided, all appointments to the boards and commissions shall be by the City Council for terms of three (3) years each, and each member shall serve until his/her successor is appointed and takes office; provided, however, that the initial terms of office may be shortened by the City Council so as to provide overlapping terms of office. Appointments shall expire the day before the first regular meeting of the City Council in

each month according to the following schedule:

(3) April:

Historic Preservation Commission;

(b) Alternate members. The City Council at its discretion may appoint up to three (3) persons as alternate members for each board or commission. If a regular member of a board or commission is to be absent from a meeting, the presiding officer for the meeting may select an alternate member to fill such absence and to attend and serve at the meeting. The alternate member may exercise all powers at the meeting which the absent regular member could exercise, and the alternate's powers and privileges shall terminate at the end of the meeting attended. The presiding officer may at his/her discretion select the same alternate to serve at successive meetings in the absence of any member.

(c) Limit to term of members. No board member shall serve more than two (2) successive terms on the same board or commission.

(d) Removal of members. All appointed members of a board or commission shall be subject to removal, at any time, by the City Council. In the event an appointed member of a board or commission ceases to qualify for membership, his or her appointment is immediately terminated.

(e) Vacancies. The City Council shall fill all vacancies on boards and commissions by appointment for the unexpired term.

(Code 1971 §§ 2-63, 2-64, 2-67; 6-95 § 1; 10-07 § 2; Ord. No. 9-2018 , § 2, 4-20-2018)





City Council
STAFF REPORT
City of Glenwood Springs
February 3, 2022

Agenda Item: Transportation Commission Appointments

Action Requested: Transportation Commission Appointments

Department: City Administration

Strategic Goals: Protect and Preserve our Quality of Life

Background Info: Betsy Suerth and Jon Harman were interviewed on November 2nd, 2021 by Councilor Wussow and Councilor Kaup. They were deemed eligible for appointment with to fill terms ending March 2024.

Issues: N/A

Staff Recommendation: Staff defers to City Council.

Transportation Commission Application

Thank you for your interest in serving your community. Please answer all questions on this application.

Personal Information

1. Name *

Betsy Suerth

2. Home Address *

928 Cooper Avenue, Glenwood Springs, CO 81601

3. Mailing Address *

Same as above

4. Home Phone *

970-379-2202

5. Work Phone *

Same as above

6. Mobile Phone *

same as above

7. Email Address *

betsysuerth@yahoo.com

8. Occupation *

Retired Public Works and Utilities Director

Personal and Professional Interests

9. Why are you interested in serving on the Transportation Commission? *

I would like to use my knowledge and experience to give back to the community.

10. What do you view as your role if selected as a member to the Transportation Commission? *

To review materials provided by staff, intergovernmental committees, and the community to inform myself, participate in discussions with fellow commissioners, and to provide to the Council a unified report on matters concerning transportation issues which directly affect the City.

11. Please list any of Glenwood Springs past transit/transportation studies and your familiarities with them. *

Various RFTA studies over the past 20+ years regarding regional transportation needs. I have read survey results of the MOVE study, but have not had an opportunity to review a draft of the study.

12. Do you have any particular areas of interest or a particular perspective relating to transit or transportation in Glenwood Springs? *

I support RFTA and the Glenwood Ride. I have ridden RFTA buses to commute to and from jobs both up and downvalley, and have watched the valley grow in concert with the growth of public transit needs. I have reviewed statistics regarding growth in the context of planning and zoning and comprehensive plans, and have a good understanding of the complexities involving transportation needs and local and regional development/growth.

13. Can you separate yourself from your personal opinions and represent the City's goals, policies, plans, and the Glenwood Springs Municipal Code in an equitable fashion? *

Yes, I have done that my entire career.

14. Can you describe an experience making a decision that made people unhappy? *

While working for the Town of Silt, I made a decision to close a major thoroughfare to allow the contractor to complete a certain phase of a roundabout construction. This came at an inconvenient time during the hunting season, and it upset many who were visiting the area and the local businesses. If I had a chance to go back and find a different way to proceed without closing the road at that time, I would.

15. Transportation Commission members generally meet the first Tuesday of each month at 7:30 AM. Special meetings may occur during the month, such as an evening work session with City Council. In addition to meetings, there are monthly packet materials to review in preparation for the meetings. Do you have any existing time commitments that will hamper your ability to serve? *

No

16. What experience do you have working with people on a board, commission, or committee? *

I did this my entire career. I also served as a planning and zoning commissioner in 2 different communities.

17. Please enter today's date *

10/7/2021



18. Have you previously served on the Transportation Commission? *

☒ No

☐ Yes

Powers and Duties of the Transportation Commission

(as defined in Title 020 of the Glenwood Springs Municipal Code)

020.020.020(9) Composition of Transportation Commission:

a. Seven (7) citizens, at least six (6) who are residents of the City and one (1) who may reside outside of the City but within the 81601zip code area or own real property or a business within the City.

020.020.030(i) Powers and Duties of Transportation Commission.

The powers and duties of the Transportation Commission shall be:

(1) To investigate, study and report to the City Council any and all matters concerning transportation issues which directly affect the City.

(2) To investigate, study and report to the City Council on other intergovernmental committees, boards or commissions working on transportation issues in the Tri-County (Pitkin, Garfield and Eagle) area.

- (3) To meet with the City Council on an annual basis to identify which transportation issues require priority attention.
 - (4) To investigate, study and report to the City Council on grants, donations and other forms of funding to assist in meeting the transportation needs of the City.
 - (5) To perform functions concerning oversight of transportation issues or functions as delegated by the City Council.
 - (6) To appoint subcommittees as necessary to carry out the foregoing functions subject to the approval of the City Council
-

Appointment, Removal, Term and Vacancies of Boards and Commissions

Glenwood Springs, CO Municipal Code 020.020.040

(a) Appointment and term of members. Except as otherwise provided, all appointments to the boards and commissions shall be by the City Council for terms of three (3) years each, and each member shall serve until his/her successor is appointed and takes office; provided, however, that the initial terms of office may be shortened by the City Council so as to provide overlapping terms of office. Appointments shall expire the day before the first regular meeting of the City Council in each month according to the following schedule:

(1) February:

Planning and Zoning Commission;
Finance Advisory Board;
Tourism Promotion Board;
Building Board of Appeals.

(2) March:

Transportation Commission;
Arts and Culture Board;
Parks and Recreation Commission;
Airport Board;
River Commission.

(3) April:

Local Liquor Licensing Authority;
Victim's Witnesses Assistance and Law Enforcement Board;
Historic Preservation Commission;
Glenwood Springs Housing Commission.

(b) Alternate members. The City Council at its discretion may appoint up to three (3) persons as alternate members for each board or commission. If a regular member of a board or commission is to be absent from a meeting, the presiding officer for the meeting may select an alternate member to fill such absence and to attend and serve at the meeting. The alternate member may exercise all powers at the meeting which the absent regular member could exercise, and the alternate's

powers and privileges shall terminate at the end of the meeting attended. The presiding officer may at his/her discretion select the same alternate to serve at successive meetings in the absence of any member.

(c) Limit to term of members. No Board member shall serve more than two (2) terms on the same board or commission.

(d) Removal of members. All appointed members of a board or commission shall be subject to removal, at any time, by the City Council. In the event an appointed member of a board or commission ceases to qualify for membership, his or her appointment is immediately terminated.

(e) Vacancies. The City Council shall fill all vacancies on boards and commissions by appointment for the unexpired term.

(Code 1971 §§ 2-63, 2-64, 2-67; 6-95 § 1; 10-07 § 2; Ord. No. 9-2018 , § 2, 4-20-2018)

Transportation Commission Application

Thank you for your interest in serving your community. Please answer all questions on this application.

Personal Information

1. Name *

Jon Harman

2. Home Address *

3006 Sopris Ave

3. Mailing Address *

3006 Sopris Ave

4. Home Phone *

281 620 9815

5. Work Phone *

281 620 9815

6. Mobile Phone *

281 620 9815

7. Email Address *

jharman@masonmorse.com

8. Occupation *

Realtor

Personal and Professional Interests

9. Why are you interested in serving on the Transportation Commission? *

I feel the city of GWS has transportation issues that need addressed.

10. What do you view as your role if selected as a member to the Transportation Commission? *

I would like to see myself as a new voice that can provide ideas to help point the future of transportation in GWS in a better direction.

11. Please list any of Glenwood Springs past transit/transportation studies and your familiarities with them. *

I can't say I have personally been involved with any, but I can say I have paid attention over many years, and watched the city grow and expand.

12. Do you have any particular areas of interest or a particular perspective relating to transit or transportation in Glenwood Springs? *

I think the congestion and flow of traffic is a problem that needs addressed.

13. Can you separate yourself from your personal opinions and represent the City's goals, policies, plans, and the Glenwood Springs Municipal Code in an equitable fashion? *

Absolutely

14. Can you describe an experience making a decision that made people unhappy? *

N/A

15. Transportation Commission members generally meet the first Tuesday of each month at 7:30 AM. Special meetings may occur during the month, such as an evening work session with City Council. In addition to meetings, there are monthly packet materials to review in preparation for the meetings. Do you have any existing time commitments that will hamper your ability to serve? *

I do not.

16. What experience do you have working with people on a board, commission, or committee? *

I have work experience in both construction and real estate, which are both team driven industries.

17. Please enter today's date *

10/27/2021



18. Have you previously served on the Transportation Commission? *

☒ No

☐ Yes

Powers and Duties of the Transportation Commission

(as defined in Title 020 of the Glenwood Springs Municipal Code)

020.020.020(9) Composition of Transportation Commission:

a. Seven (7) citizens, at least six (6) who are residents of the City and one (1) who may reside outside of the City but within the 81601 zip code area or own real property or a business within the City.

020.020.030(i) Powers and Duties of Transportation Commission.

The powers and duties of the Transportation Commission shall be:

- (1) To investigate, study and report to the City Council any and all matters concerning transportation issues which directly affect the City.
- (2) To investigate, study and report to the City Council on other intergovernmental committees, boards or commissions working on transportation issues in the Tri-County (Pitkin, Garfield and Eagle) area.
- (3) To meet with the City Council on an annual basis to identify which transportation issues require priority attention.
- (4) To investigate, study and report to the City Council on grants, donations and other forms of funding to assist in meeting the transportation needs of the City.
- (5) To perform functions concerning oversight of transportation issues or functions as delegated

by the City Council.

(6) To appoint subcommittees as necessary to carry out the foregoing functions subject to the approval of the City Council

Appointment, Removal, Term and Vacancies of Boards and Commissions

Glenwood Springs, CO Municipal Code 020.020.040

(a) Appointment and term of members. Except as otherwise provided, all appointments to the boards and commissions shall be by the City Council for terms of three (3) years each, and each member shall serve until his/her successor is appointed and takes office; provided, however, that the initial terms of office may be shortened by the City Council so as to provide overlapping terms of office. Appointments shall expire the day before the first regular meeting of the City Council in each month according to the following schedule:

(2) March:
Transportation Commission;

(b) Alternate members. The City Council at its discretion may appoint up to three (3) persons as alternate members for each board or commission. If a regular member of a board or commission is to be absent from a meeting, the presiding officer for the meeting may select an alternate member to fill such absence and to attend and serve at the meeting. The alternate member may exercise all powers at the meeting which the absent regular member could exercise, and the alternate's powers and privileges shall terminate at the end of the meeting attended. The presiding officer may at his/her discretion select the same alternate to serve at successive meetings in the absence of any member.

(c) Limit to term of members. No board member shall serve more than two (2) successive terms on the same board or commission.

(d) Removal of members. All appointed members of a board or commission shall be subject to removal, at any time, by the City Council. In the event an appointed member of a board or commission ceases to qualify for membership, his or her appointment is immediately terminated.

(e) Vacancies. The City Council shall fill all vacancies on boards and commissions by appointment for the unexpired term.

(Code 1971 §§ 2-63, 2-64, 2-67; 6-95 § 1; 10-07 § 2; Ord. No. 9-2018 , § 2, 4-20-2018)



City Council
STAFF REPORT
City of Glenwood Springs
February 3, 2022

Agenda Item: Airport Commission Appointment

Action Requested: Airport Commission Appointment

Department: City Administration

Strategic Goals: Provide Efficient and Responsive City Government

Background Info: Alan Arnold has applied for reappointment to his regular seat on the Airport Board set to expire 03/2022. Alan is eligible for appointment for a regular seat expiring March 2025.

Issues: None.

Staff Recommendation: Staff defers to City Council.

Respondent

<

5

Anonymous

>

22:57

Time to complete

Airport Commission Application

Thank you for your interest in serving your community. Please answer all questions on this application.

Composition of the Airport Commission

(as defined in Title 020 of the Glenwood Springs Municipal Code)

- Five (5) citizens, at least four (4) who are residents of the City and one (1) who may reside outside of the City but within the 81601 zip code area or own real property or a business within the City.

Personal Information

1. Membership Qualifications *

You must qualify with one of the options below to be eligible to serve on the Airport Commission. Please select the option that applies to you.

- ☒ Resident of Glenwood Springs within city limits.
- ☐ Resident outside of Glenwood Springs city limits, but within the 81601 zip code.
- ☒ Owner of real property or a business within Glenwood Springs city limits.

2. Name *

Alan Arnold

3. Home Address *

1675 County Road 154 Glenwood Springs, Co. 81601

4. Mailing Address *

1675 County Road 154 Glenwood Springs, Co. 81601

5. Home Phone *

970 379 0270

6. Work Phone *

970 379 0270

7. Mobile Phone *

970 379 0270

8. Email Address *

alanarnold@sopris.net

9. Occupation *

none

Personal and Professional Interests

10. Do you have any specific areas of interest relating to the airport? Do you have any particular perspective related to its use or development? *

The expansion of airport facilities to serve more people and aircraft

11. What do you view as your role if selected as a member to the Airport Commission? *

Act as an advisor and promoter of the airport to the City Council

12. Do you have any experience working with people on a board, commission, committee, or as part of some other decision making group? *

40 years as project manager of all phases of planning and group coordination of residential and commercial construction projects Current airport commission member

13. Do you understand that as a member of the Airport Commission you would be serving in an advisory role to City Council regarding airport issues? *

Yes

14. If, as a member of the Airport Commission, you had to make a decision that was unpopular with either airport users or residents surrounding the airport, how might you approach that situation? *

Unknown until I hear the question

15. The Airport Commission meetings typically occur one morning a month, with other occasional related events, meetings, and email contact. Will you be sufficiently available to participate? *

Yes

16. Do you have any areas of expertise that could be helpful to the Commission's decision making? *

40 years of construction management. This always involves mediating the opposing or noncompliant opinions of a very large group participants

17. Please enter today's date *

1/8/2022



18. Have you previously served on the Airport Commission? *

☐ No

☒ Yes

Reappointment Applicants

19. Why do you think you should be reappointed? *

Familiarity with the current state of events concerning the airport which I think is important to a commission member

20. Have you served two full successive terms on the Airport Commission? *

No

Powers and Duties of the Airport Commission

(as defined in Title 020 of the Glenwood Springs Municipal Code)

(b) Powers and Duties of Airport Commission.

The powers and duties of the Airport Commission shall be to investigate, study and report to the City Council all matters concerning the airport facilities of the City and other matters concerning the subject of aviation which may be pertinent to the City as shall be requested of the Airport Commission by the City Council; and such Commission may investigate, study, and report to City Council on such other matters concerning the Municipal Airport as the Commission may deem for the best interests of the City.

Appointment, Removal, Term and Vacancies of Boards and Commissions

(Per the Glenwood Springs, CO Municipal Code 020.020.040)

(a) Appointment and term of members. Except as otherwise provided, all appointments to the boards and commissions shall be by the City Council for terms of three (3) years each, and each member shall serve until his/her successor is appointed and takes office; provided, however, that the initial terms of office may be shortened by the City Council so as to provide overlapping terms of office. Appointments shall expire the day before the first regular meeting of the City Council in each month according to the following schedule:

March:

Airport Board;

(b) Alternate members. The City Council at its discretion may appoint up to three (3) persons as alternate members for each board or commission. If a regular member of a board or commission is to be absent from a meeting, the presiding officer for the meeting may select an alternate member to fill such absence and to attend and serve at the meeting. The alternate member may exercise all powers at the meeting which the absent regular member could exercise, and the alternate's powers and privileges shall terminate at the end of the meeting attended. The presiding officer may at his/her discretion select the same alternate to serve at successive meetings in the absence of any member.

(c) Limit to term of members. No board member shall serve more than two (2) successive terms on the same board or commission.

(d) Removal of members. All appointed members of a board or commission shall be subject to removal, at any time, by the City Council. In the event an appointed member of a board or commission ceases to qualify for membership, his or her appointment is immediately terminated.

(e) Vacancies. The City Council shall fill all vacancies on boards and commissions by appointment for the unexpired term.

(Code 1971 §§ 2-63, 2-64, 2-67; 6-95 § 1; 10-07 § 2; Ord. No. 9-2018 , § 2, 4-20-2018)



City Council
STAFF REPORT
City of Glenwood Springs
February 3, 2022

Agenda Item:	River Commission Appointments
Action Requested:	River Commission Appointments
Department:	City Administration
Strategic Goals:	Provide Efficient and Responsive City Government Protect and Preserve our Quality of Life
Background Info:	In March 2022, the River Commission will have two regular seats and one alternate seat open. These terms will expire March 2025. Three applicants were interviewed: • Christopher Sharrow • Hunter Causey • Kyle Holt
Issues:	None
Staff Recommendation:	Staff defers to City Council

Respondent



4

Anonymous



24:58

Time to complete



River Commission Application

Thank you for your interest and time commitment in serving your community. Please complete all questions on this application.

Composition of the River Commission:

(as defined in Title 020 of the Glenwood Springs Municipal Code)

(7) River Commission.

- Seven (7) citizens, with one (1) alternate, at least six (6) who are residents of the City and one (1) who may reside outside of the City but within the 81601 zip code area or own real property or a business within the City.

Personal Information

1. Membership Qualifications *

You must qualify with one of the options below to be eligible to serve on the Housing Commission. Please select the option that applies to you.

- ☒ Resident of Glenwood Springs within city limits.
- ☐ Resident outside of Glenwood Springs city limits, but within the 81601 zip code.
- ☐ Owner of real property or a business within Glenwood Springs city limits.

2. Name *

Christopher Sharrow

3. Home Address *

2018 Midland Ave. Glenwood Springs 81601

4. Mailing Address *

2018 Midland Ave. Glenwood Springs 81601

5. Home Phone *

970-279-3331

6. Work Phone *

970-279-3331

7. Mobile Phone *

970-279-3331

8. Email Address *

chris@sdproductions.com

9. Occupation *

Licensed Clinical Social Worker Photographer

Personal and Professional Interests

10. Why are you interested in serving on the River Commission? *

As a lifelong angler, and a new riverside resident of Glenwood, I want to be part of a team working to safeguard our most precious resources and increase their positive impact in our community.

11. What personal or professional experience do you have relative to the mission of the River Commission (see Powers and Duties attached)? *

Knowledge and love of fishing, a keen interest in aquatic entomology and a strong work ethic. The ability to work closely with people of diverse backgrounds to achieve common goals.

12. Do you actively participate in activities using the City's open spaces, trails or rivers? *

Yes, on a daily basis.

13. Have you previously served in any policy advisory capacity relative to natural resource protection? If so, state your role. *

I have not.

14. What do you see as the role that rivers, trails and open spaces play in the character and function of the Glenwood Springs Community? *

As a community with two rivers running through it and surrounded by an almost endless number of trails and open spaces, the role is a pivotal one with profound ability to affect the community and its residents in a positive and lasting way.

15. Can you separate yourself from your personal opinions and represent the City's goals, policies, plans and the Glenwood Springs Municipal Code in an equitable fashion? *

I will endeavor to do so.

16. What experience do you have working with people on a board, commission or committee? *

Have served on several boards previously as a social worker, primarily serving law enforcement and victims of crime.

17. Are you able to attend a monthly meeting of the River Commission held at 7:30 a.m. on the first Wednesday of each month? *

☒ Yes

☐ No

18. Please select today's date. *

12/26/2021



19. Have you served on the River Commission before? *

☒ No

☐ Yes

Powers and Duties of the River Commission

(as defined in Title 020 of the Glenwood Springs Municipal Code)

(g) Powers and duties of River Commission.

The powers and duties of the River Commission shall be:

(1) To investigate, study, and report to the City Council any and all matters concerning the use, enjoyment, conservation of the, rivers and streams in the City and its environs and the open space adjacent thereto, including water quality issues, the protection of valuable riparian ecosystems, and water rights matters.

(2) To advise the City Council on public access to and use of rivers and streams in the City and the adjacent environs and maintain and update a map related thereto as necessary.

(3) To advise the City Council on the use of municipally owned property adjacent to the rivers and City construction projects in the rivers or adjacent open space.

(4) To promote and celebrate riverfront cleanup efforts and public awareness of non-point source water pollution.

(5) To investigate, study and report to the City Council on grants, donations and other forms of funding to assist in the acquisition and improvement of the rivers and adjacent open space, and to otherwise advise the City Council on budgetary needs related to preservation of open space and river improvement.

(6) To appoint subcommittees as necessary to carry out the foregoing functions.

(7) To coordinate with the Parks and Recreation Commission, Roaring Fork Conservancy, Middle Colorado Watershed Council, and other organizations, stakeholders groups, and property owners as is necessary to carry out the foregoing functions.

(8) At the request of City Council hold an annual work session with the City Council to review the actions taken by the River Commission regarding the foregoing functions and discuss future plans.

Appointment, Removal, Term and Vacancies of Boards and Commissions

(Per the Glenwood Springs, CO Municipal Code 020.020.040)

(a) Appointment and term of members. Except as otherwise provided, all appointments to the boards and commissions shall be by the City Council for terms of three (3) years each, and each member shall serve until his/her successor is appointed and takes office; provided, however, that the initial terms of office may be shortened by the City Council so as to provide overlapping terms of office. Appointments shall expire the day before the first regular meeting of the City Council in each month according to the following schedule:

March:

River Commission.

(b) Alternate members. The City Council at its discretion may appoint up to three (3) persons as alternate members for each board or commission. If a regular member of a board or commission is to be absent from a meeting, the presiding officer for the meeting may select an alternate member to fill such absence and to attend and serve at the meeting. The alternate member may exercise all

powers at the meeting which the absent regular member could exercise, and the alternate's powers and privileges shall terminate at the end of the meeting attended. The presiding officer may at his/her discretion select the same alternate to serve at successive meetings in the absence of any member.

(c) Limit to term of members. No board member shall serve more than two (2) successive terms on the same board or commission.

(d) Removal of members. All appointed members of a board or commission shall be subject to removal, at any time, by the City Council. In the event an appointed member of a board or commission ceases to qualify for membership, his or her appointment is immediately terminated.

(e) Vacancies. The City Council shall fill all vacancies on boards and commissions by appointment for the unexpired term.

(Code 1971 §§ 2-63, 2-64, 2-67; 6-95 § 1; 10-07 § 2; Ord. No. 9-2018 , § 2, 4-20-2018)



River Commission Application

Thank you for your interest and time commitment in serving your community. Please complete all questions on this application.

Composition of the River Commission:

(as defined in Title 020 of the Glenwood Springs Municipal Code)

(7) River Commission.

- Seven (7) citizens, with one (1) alternate, at least six (6) who are residents of the City and one (1) who may reside outside of the City but within the 81601 zip code area or own real property or a business within the City.

Personal Information

1. Membership Qualifications *

You must qualify with one of the options below to be eligible to serve on the Housing Commission. Please select the option that applies to you.

- ☒ Resident of Glenwood Springs within city limits.
- ☐ Resident outside of Glenwood Springs city limits, but within the 81601 zip code.
- ☒ Owner of real property or a business within Glenwood Springs city limits.

2. Name *

Hunter Causey

3. Home Address *

1028 Palmer Ave

4. Mailing Address *

1028 Palmer Ave Glenwood Springs, CO 81601

5. Home Phone *

970-319-1604

6. Work Phone *

970-645-8522

7. Mobile Phone *

970-319-1604

8. Email Address *

hjcausey@gmail.com

9. Occupation *

Water Resources Engineer

Personal and Professional Interests

10. Why are you interested in serving on the River Commission? *

I see serving on the River Commission as an opportunity to give back to my community by using my professional expertise in an area that I personally care about.

11. What personal or professional experience do you have relative to the mission of the River Commission (see Powers and Duties attached)? *

My degrees in civil engineering, former employment as a consultant engineer, and current role at the River District have given me years of experience working with many of the subjects that the River Commission advises on to the City Council. My experience includes water rights engineering, hydrology, GIS mapping, advocacy, and infrastructure management. As the Chief Engineer at the River District, I manage infrastructure, related construction projects, several wetlands areas, and a recreation area. I also advocate for the River District's constituents via participation in the Yampa White Green Basin Roundtable and coordination with other local, state, and federal agencies.

12. Do you actively participate in activities using the City's open spaces, trails or rivers? *

There are few days that I do not utilize the City's open spaces, trails, or rivers. I ride the Rio Grande and other trails daily as a bicycle commuter. As the father of two young children, I frequently use the City's parks with a particular fondness for the open spaces along our rivers. Lastly, I enjoy rafting the Colorado and Roaring Fork rivers.

13. Have you previously served in any policy advisory capacity relative to natural resource protection? If so, state your role. *

I have served in policy advisory roles, including the West Slope representative on Denver Water's Citizens Advisory Committee. I also serve as the Colorado River District representative on the Yampa White Green Basin Roundtable.

14. What do you see as the role that rivers, trails and open spaces play in the character and function of the Glenwood Springs Community? *

Our rivers, trails, and open spaces provide a great deal of value to our community, ranging from the utilitarian to the spiritual. All three are drivers of our tourist economy, with thoughtful investments offering opportunities to enhance these assets. The trails provide transportation and encourage healthy habits. The city's open spaces deliver a connection to nature that offers countless health benefits. Lastly, Glenwood Springs' setting in our mountain valley and its access to the natural surroundings help define the City's character.

15. Can you separate yourself from your personal opinions and represent the City's goals, policies, plans and the Glenwood Springs Municipal Code in an equitable fashion? *

Yes, I am comfortable separating myself from my personal opinions and representing the City's objectives and have similarly done so in other professional roles.

16. What experience do you have working with people on a board, commission or committee? *

As a staff member of the River District reporting to our board, I am very familiar and comfortable with advising a governing body. I have also served on boards and committees through the Yampa White Green Basin Roundtable, several Roundtable subcommittees, and Denver Water's Citizen Advisory Committee.

17. Are you able to attend a monthly meeting of the River Commission held at 7:30 a.m. on the first Wednesday of each month? *

☒ Yes

☐ No

18. Please select today's date. *

1/21/2022



19. Have you served on the River Commission before? *

☒ No

☐ Yes

Powers and Duties of the River Commission

(as defined in Title 020 of the Glenwood Springs Municipal Code)

(g) Powers and duties of River Commission.

The powers and duties of the River Commission shall be:

(1) To investigate, study, and report to the City Council any and all matters concerning the use, enjoyment, conservation of the, rivers and streams in the City and its environs and the open space adjacent thereto, including water quality issues, the protection of valuable riparian ecosystems, and water rights matters.

(2) To advise the City Council on public access to and use of rivers and streams in the City and the adjacent environs and maintain and update a map related thereto as necessary.

(3) To advise the City Council on the use of municipally owned property adjacent to the rivers and City construction projects in the rivers or adjacent open space.

(4) To promote and celebrate riverfront cleanup efforts and public awareness of non-point source water pollution.

(5) To investigate, study and report to the City Council on grants, donations and other forms of funding to assist in the acquisition and improvement of the rivers and adjacent open space, and to otherwise advise the City Council on budgetary needs related to preservation of open space and river improvement.

(6) To appoint subcommittees as necessary to carry out the foregoing functions.

(7) To coordinate with the Parks and Recreation Commission, Roaring Fork Conservancy, Middle Colorado Watershed Council, and other organizations, stakeholders groups, and property owners as is necessary to carry out the foregoing functions.

(8) At the request of City Council hold an annual work session with the City Council to review the actions taken by the River Commission regarding the foregoing functions and discuss future plans.

Appointment, Removal, Term and Vacancies of Boards and Commissions

(Per the Glenwood Springs, CO Municipal Code 020.020.040)

(a) Appointment and term of members. Except as otherwise provided, all appointments to the boards and commissions shall be by the City Council for terms of three (3) years each, and each member shall serve until his/her successor is appointed and takes office; provided, however, that the initial terms of office may be shortened by the City Council so as to provide overlapping terms of office. Appointments shall expire the day before the first regular meeting of the City Council in each month according to the following schedule:

March:

River Commission.

(b) Alternate members. The City Council at its discretion may appoint up to three (3) persons as alternate members for each board or commission. If a regular member of a board or commission is to be absent from a meeting, the presiding officer for the meeting may select an alternate member to fill such absence and to attend and serve at the meeting. The alternate member may exercise all powers at the meeting which the absent regular member could exercise, and the alternate's powers and privileges shall terminate at the end of the meeting attended. The presiding officer may at his/her discretion select the same alternate to serve at successive meetings in the absence of any member.

(c) Limit to term of members. No board member shall serve more than two (2) successive terms on the same board or commission.

(d) Removal of members. All appointed members of a board or commission shall be subject to removal, at any time, by the City Council. In the event an appointed member of a board or commission ceases to qualify for membership, his or her appointment is immediately terminated.

(e) Vacancies. The City Council shall fill all vacancies on boards and commissions by appointment for the unexpired term.

(Code 1971 §§ 2-63, 2-64, 2-67; 6-95 § 1; 10-07 § 2; Ord. No. 9-2018 , § 2, 4-20-2018)



Respondent

<

5

Anonymous

>

7677:40

Time to complete

River Commission Application

Thank you for your interest and time commitment in serving your community. Please complete all questions on this application.

Composition of the River Commission:
(as defined in Title 020 of the Glenwood Springs Municipal Code)

- (7) River Commission.
- Seven (7) citizens, with one (1) alternate, at least six (6) who are residents of the City and one (1) who may reside outside of the City but within the 81601 zip code area or own real property or a business within the City.

Personal Information

1. Membership Qualifications *

You must qualify with one of the options below to be eligible to serve on the Housing Commission. Please select the option that applies to you.

- ☐ Resident of Glenwood Springs within city limits.
- ☐ Resident outside of Glenwood Springs city limits, but within the 81601 zip code.
- ☒ Owner of real property or a business within Glenwood Springs city limits.

2. Name *

Kyle Holt

3. Home Address *

7650 County Road 312 New Castle CO 81647

4. Mailing Address *

7650 County Road 312 New Castle, CO 81647

5. Home Phone *

9703796965

6. Work Phone *

9703796965

7. Mobile Phone *

9703796965

8. Email Address *

fish4bonz@gmail.com

9. Occupation *

Fly Fishing Guide, Instructor, Travel Advisor

Personal and Professional Interests

10. Why are you interested in serving on the River Commission? *

I am a full time fishing guide and also an owner of a lot of the river. I really care what happens to this invaluable resource.

11. What personal or professional experience do you have relative to the mission of the River Commission (see Powers and Duties attached)? *

My role in the Roaring Fork Fishing Guide Alliance

12. Do you actively participate in activities using the City's open spaces, trails or rivers? *

Yes for work and pleasure

13. Have you previously served in any policy advisory capacity relative to natural resource protection? If so, state your role. *

No

14. What do you see as the role that rivers, trails and open spaces play in the character and function of the Glenwood Springs Community? *

It is so important to have public access and also maintain the trails and open spaces

15. Can you separate yourself from your personal opinions and represent the City's goals, policies, plans and the Glenwood Springs Municipal Code in an equitable fashion? *

Yes

16. What experience do you have working with people on a board, commission or committee? *

I am currently the President of the Roaring Fork Fishing Guide Alliance. We are a non-profit that gives both guides and anglers a voice. I have also sat in on many River Commission meetings in the past few years.

17. Are you able to attend a monthly meeting of the River Commission held at 7:30 a.m. on the first Wednesday of each month? *

☒ Yes

☐ No

18. Please select today's date. *

1/4/2022



19. Have you served on the River Commission before? *

☒ No

☐ Yes

Powers and Duties of the River Commission

(as defined in Title 020 of the Glenwood Springs Municipal Code)

(g) Powers and duties of River Commission.

The powers and duties of the River Commission shall be:

(1) To investigate, study, and report to the City Council any and all matters concerning the use,

enjoyment, conservation of the, rivers and streams in the City and its environs and the open space adjacent thereto, including water quality issues, the protection of valuable riparian ecosystems, and water rights matters.

(2) To advise the City Council on public access to and use of rivers and streams in the City and the adjacent environs and maintain and update a map related thereto as necessary.

(3) To advise the City Council on the use of municipally owned property adjacent to the rivers and City construction projects in the rivers or adjacent open space.

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(5) To investigate, study and report to the City Council on grants, donations and other forms of funding to assist in the acquisition and improvement of the rivers and adjacent open space, and to otherwise advise the City Council on budgetary needs related to preservation of open space and river improvement.

(6) To appoint subcommittees as necessary to carry out the foregoing functions.

(7) To coordinate with the Parks and Recreation Commission, Roaring Fork Conservancy, Middle Colorado Watershed Council, and other organizations, stakeholders groups, and property owners as is necessary to carry out the foregoing functions.

(8) At the request of City Council hold an annual work session with the City Council to review the actions taken by the River Commission regarding the foregoing functions and discuss future plans.

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(Per the Glenwood Springs, CO Municipal Code 020.020.040)

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River Commission.

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(c) Limit to term of members. No board member shall serve more than two (2) successive terms on the same board or commission.

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(e) Vacancies. The City Council shall fill all vacancies on boards and commissions by appointment for the unexpired term.

(Code 1971 §§ 2-63, 2-64, 2-67; 6-95 § 1; 10-07 § 2; Ord. No. 9-2018 , § 2, 4-20-2018)



City Council
STAFF REPORT
City of Glenwood Springs
February 3, 2022

Agenda Item:	Planning Item 70-21 - Consideration of a Right-of-Way Encroachment License for drainage features in Grand Avenue.
Action Requested:	<u>Action 1 –Right-of-Way Encroachment License</u> – for drainage features along Grand Avenue.
Department:	Economic and Community Development
Strategic Goals:	Preserve and Improve Infrastructure Ensure Public Safety
Background Info:	ANB Bank recently completed construction of a new building at 910 Grand Avenue and has since occupied the first floor. Part of the required site work included new stormwater drainage improvements. Prior to and also following construction, stormwater naturally drains away from the site to the south, southwest and eventually to Grand Avenue. While new improvements will slow and treat the stormwater per the City's Engineering Standards before it leaves the site, chases through the new sidewalk were necessary to accommodate it. The attached as-built survey depicts three locations where the new chases were installed. A Right-of-Way Encroachment License is required since the improvements a new encroachment. Please see further details below.
Issues:	Right-of-Way Encroachment License Approval Criteria Section 070.060.030(f)(3)e.2 of the Code outlines the approval considerations for the review of a Right-of-Way Encroachment License application. Said language is provided in <i>bold italics</i> below, while other language is provided by staff. In reviewing the proposed right-of-way encroachment license, the Director and City Council shall consider whether or not the proposed encroachment: 1. Furthers the City's land use and utility goals and objectives; The proposed encroachment via the chases allows stormwater drainage to function properly/exit the site without causing negative impacts to the sidewalk (i.e. from water or ice undermining, etc.). Much of the stormwater generated by the development is handled onsite. However, higher frequency storm events must be able to flow through the site to Grand Avenue. 2. Could be reasonably accommodated on the applicant's own property and outside of the City's right-of-way; Said encroachments can not be accommodated fully on the applicant's private property due to the topographic constraints at the site (in the Palmer Avenue right-of-way) and/or the proximity of proposed onsite drainage facilities to desired bicycle and pedestrian improvements (adjacent to the Blake Avenue right-of-way). 3. Compromises public safety, health, and welfare of the community; The drainage improvements have been designed so that they do not compromise public safety, health, nor welfare. Furthermore, following approval of the encroachment, where applicable, the applicant is required to enter into an agreement which protects City from any potential negative impacts related to the request. 4.Compromises access to other public and/or private lands; and The encroachments do not compromise access to public/private lands.

5. Is necessary based on a hardship created by the applicant.

The encroachments are related to drainage/stormwater/water quality improvements made by the applicant necessary due to recent redevelopment, not any hardship created by the applicant.

Staff Recommendation:

Action Alternatives

Section 070.060.030(g)(1)d of the Code outlines the review and decision procedures for applications being considered by City Council stating, "The applicable review body shall approve, approve with conditions, or deny the application based on the applicable approval criteria listed in the application specific procedures. The body may also continue the hearing or refer the application to another authority as provided in 070.060.050(a)(2)c, Referral and Call- Up Procedures."

Action 1 –Right-of-Way Encroachment License – for drainage features along Grand Avenue.

Staff Recommendation:

Staff recommends approval of the License to Encroach application with the findings and conditions below:

Recommended Findings:

1. The proposed encroachment furthers the City's land use and utility goals and objectives;
2. The proposed encroachment does not compromise public safety, health, nor the welfare of the community;
3. The proposed encroachment does not compromise access to other public and/or private lands; and
4. The proposed encroachment is not based on a hardship created by the applicant.

Recommended Conditions:

1. The type and extent of the encroachments shall be consistent with Exhibit B attached;
2. Prior to the issuance of a certificate of occupancy for the second level building improvements, the applicant shall provide an agreement, subject to the review and approval of the City Attorney, which indemnifies the City from any and all damages to property or persons related to the encroachment;
3. Prior to the issuance of a certificate of occupancy for the second level building improvements , the applicant shall obtain and provide a copy of an umbrella liability policy covering the encroachments in limits not less than \$1,000,000.00. Such policy shall be renewed by the applicant for the life of the encroachment, and a copy of each new policy shall be furnished to the City upon the anniversary date of the license to encroach. Failure to provide the policy as required shall automatically nullify the license to encroach without necessity of further notice and shall require the applicant's removal of the encroachment at the applicant's sole expense. Should the applicant fail to remove the encroachment within a reasonable time, the City may declare the encroachment a public nuisance, undertake removal, and attach a lien to the applicant's property for the costs of the removal.



City Council
STAFF REPORT
City of Glenwood Springs
February 3, 2022

Agenda Item: Colorado Animal Rescue

Action Requested: NA

Department: City Administration

Strategic Goals: Protect and Preserve our Quality of Life

Background Info: Wes Boyd, Executive Director of Colorado Animal Rescue, requested an opportunity to update City Council on both successes and challenges they are facing. Staff will include a presentation from Wes in the packet if received ahead of the meeting.

Issues: NA

Staff Recommendation: NA



City Council
STAFF REPORT
City of Glenwood Springs
February 3, 2022

Agenda Item: Youth Mental Health

Action Requested: Approve the joint proposal from YouthZone and the Roaring Fork School District for \$335,000 to sustain mental health services at Glenwood Springs Elementary School, Sopris Elementary School, Riverview School, Two Rivers School, and Yampah School and provide funding for an additional mental health provider at YouthZone dedicated to youth and families in Glenwood Springs.

Department: City Administration

Strategic Goals: Protect and Preserve our Quality of Life

Background Info: The residents of Glenwood Springs approved a marijuana excise tax on both retail and growing operations in 2017. In 2018, the City funded \$75,000 to Mind Springs Health for school counseling and \$25,000 for Community Center passes for youths when school is not in session. Funding for counseling was focused on St. Stephens, Riverview, and Yampah. This fund typically brings in around \$400,000 and is also used to support the Police and Fire Department.

A cigarette tax was passed in 2019 that was focused on enforcement and mental health issues. This funding is budgeted to raise \$800,000 in 2022. Half of this amount is budgeted in 2022 for a detox facility and mental health issues in the community. All together, the 2022 budget has \$500,000 included for mental health/detox services. While City Council was very supportive of funding mental health services in schools, staff was directed to improve the existing program if possible.

In 2021, the City of Glenwood Springs provided \$120,000 to the Roaring Fork Schools and \$30,000 to YouthZone to increase access to school-based mental health services for nearly 800 students at Glenwood Springs Elementary School and Sopris Elementary School. With that funding, Roaring Fork Schools contracted a mental health clinician from the Hope Center who is providing full-time direct services to students in the schools. Based upon this partnership, staff pulled together Mind Springs, YouthZone and the Roaring Fork School District to work towards a joint program to better serve youths in Glenwood Springs.

Mind Springs informed the city that it would no longer provide mental health services for youths in schools in 2022. For several months YouthZone and the School District worked together to come up with a joint proposal for City Council's consideration. The proposal is for \$335,000 to sustain mental health services at Glenwood Springs Elementary School, Sopris Elementary School, Riverview School, Two Rivers School, and Yampah School and provide funding for an additional mental health provider at YouthZone dedicated to youth and families in Glenwood Springs. This amount does not include the \$25,000 set aside each year for passes at the Community Center.

Garfield County successfully applied for a state grant that will cover the build out of the detox facility and the last quarter of operations in 2022. Staff is recommending that the \$75,000 that was budgeted in the General Fund for Mind Springs be allocated to the project and the remaining amount comes from releasing \$260,000 of the \$400,000 held in reserves from the Tobacco Tax Fund for youth mental health and detox. The Available Fund Balance in the Tobacco Tax fund will remain at an estimated \$170,000 at the end of 2022.

- Issues:** Staff has informed YouthZone and the School District that it is imperative that they continue to seek additional sources of funding especially as state funding dries up. The City cannot fully fund this program in its entirety. However, the youth mental health crisis is growing in Colorado and services are required now to support families.
- Staff Recommendation:** Staff is recommending that City Council approve the joint proposal from YouthZone and the Roaring Fork School District for \$335,000 to sustain mental health services at Glenwood Springs Elementary School, Sopris Elementary School, Riverview School, Two Rivers School, and Yampah School and provide funding for an additional mental health provider at YouthZone dedicated to youth and families in Glenwood Springs.



**School- and community-based mental health services
Request for City of Glenwood Springs funding 1.3.22**

In 2021, the City of Glenwood Springs provided \$120,000 to the Roaring Fork Schools to increase access to school-based mental health services for nearly 800 students at Glenwood Springs Elementary School and Sopris Elementary School. With that funding, Roaring Fork Schools contracted a mental health clinician from the Hope Center who is providing full time direct services to students in the schools. In just the first three months of the 21/22 school year, the Hope Center clinician working at SES and GSES funded by the city of Glenwood Springs worked with over 42 students, provided 175 socio-emotional check-ins, and facilitated 33 family sessions.

The City of Glenwood Springs also provided \$30,000 to YouthZone to support increasing services with Mental Health and Substance intervention and education in the City of Glenwood Springs. This funding came as YouthZone experienced heightened Mental Health and Substance Support needs in clients referred. During the 20/21 year, more than 71% of clients referred were in need of Mental Health and/or Substance Use support. With this funding, YouthZone subsidized the cost to serve 134 clients in Glenwood Springs. Since July of 2021, Youth Zone received 24 referrals from the Roaring Fork Schools (last school year, there was 1 referral from the RFSD).

The Roaring Fork Schools and Youth Zone have utilized funding to increase access to school-based (RFSD) and out of school mental health and substance support services (Youth Zone) for children and youth in Glenwood Springs. The City of Glenwood Springs' contributions are part of a much larger effort to ensure children, youth and families have access to mental health services.

Current staffing in the City of Glenwood Springs includes:

Glenwood Springs High School - 2 Hope Center mental health clinicians funded by Colorado Department of Education (CDE) School Health Professionals Grant and GSHS. *Funding sunsets June, 2023.*

Glenwood Springs Middle School - 1 Hope Center mental health clinician funded by Colorado Department of Education (CDE) School Health Professionals Grant and GSMS. *Funding sunsets June, 2023.*

Glenwood Springs Elementary and Sopris Elementary - 1 Hope Center mental health clinician funded by the City of Glenwood Springs. *Funding uncertain after 2021.*

Riverview School - 1 Hope Center mental health clinician funded by Colorado Department of Education (CDE) School Health Professionals Grant and RVS. *Funding sunsets June, 2023.*

Two River Community School - 1 Hope Center mental health clinician funded through grants, donations, fundraising and internal dollars. *Funding uncertain after June, 2022.*

Yampah Mountain High School - .5 Mind Springs mental health clinician funded by the City of Glenwood Springs. *Funding uncertain after 2021.*

YouthZone Glenwood Springs Youth Advocate - 1 Youth Advocate dedicated to the City of Glenwood Springs funded by YouthZone through grants, donations and fundraising .

Outcomes for these investments are significant. Community mental health providers in the schools have stabilized schools' crisis response to suicide and threat, provided collaborative consultation for school-based mental health teams and most importantly, provided direct services to hundreds of students. With partners like the Hope Center, schools are supported by an experienced organization with the capacity to provide clinical support, expertise and supervision for their mental health professionals - something our schools (experts in education) are not as good at. Mental and behavioral wellness for youth leads to better decision making,

stronger academic outcomes, and reduced substance use and abuse. Investment in comprehensive, integrated mental and behavioral wellness has the potential to lower youth substance use rates, to interrupt pathways to substance use and to strengthen healthy skill development. Positioning providers in the schools increases access, supports continuity of care and strengthens critical relationships between students, families, schools and community mental health providers.

Community-based mental health providers at YouthZone provide additional levels of support for families and youth outside of schools. Intervention at YouthZone is designed to be more long-term and to provide more wrap around support for those whose needs are best met by non-school-based providers. Services are wide-ranging and include assessment, advocacy, mental health and substance use support, counseling, parent education, life skills groups and more. Additionally, YouthZone works to reduce barriers for youth and families in need by providing flexible and timely scheduling, fee waivers and scholarships, translation and interpretation, and meeting places up and down the Roaring Fork Valley.

In this request, Roaring Fork Schools and YouthZone seek to increase funding from the City of Glenwood Springs to stabilize existing services (especially at GSES, SES, Yampah and Two Rivers Community School) and increase community-based services by staffing an additional mental health provider at YouthZone dedicated to serving youth and families in Glenwood Springs.

Glenwood Springs project budget:

\$260,000 to sustain mental health providers at Two Rivers, Yampah, GSES, SES and Riverview School.

\$75,000 to staff a mental health provider at YouthZone dedicated to youth and families in Glenwood Springs.

\$335,000 Total Request

Additional information:

- Please contact RFSD chief student and family services, Anna Cole, acole@rfschools.com or YouthZone executive director, Jami Hayes, jhayes@youthzone.com



City Council
STAFF REPORT
City of Glenwood Springs
February 3, 2022

Agenda Item:	6th Street Design and Grant Funding
Action Requested:	Decision on whether to pursue Federal funding for the 6th Street Project through the State Mainstreets grant and the Federal RAISE Grant (for both 6th and 8th Street projects)
Department:	Engineering
Strategic Goals:	Generate Sustainable Economic Development Preserve and Improve Infrastructure
Background Info:	The City began this project in 2021 with the selection of a consultant to design the reconstruction of two blocks of 6th Street from Laurel to Pine. The project design is funded by the DDA. The construction is funded in the City's A&I Fund. Although the project is currently funded within the city budget, city staff have been working to try to obtain grant funding for the project through the CDOT Mainstreets Grant and the Federal RAISE Grant. The City applied for both of these grants last year and was unsuccessful in obtaining funding. In the first round, the Mainstreets grant did not require the CDOT design and construction specifications. However, in this round they are requiring a complete review by CDOT, including a NEPA environmental process and meeting the CDOT design and construction specifications. The design contract that the City has with the engineer does not currently scope developing the design and the specifications to CDOT standards. The design engineer has stated that they do not have the experience to develop a design and contract to this level. If the Council decides to move forward with these Federal and State grant funding sources, staff will need to negotiate a new design contract with an engineering firm that has the capability to develop these types of projects. Design costs will increase and the construction of the project will need to shift to the spring of 2023.
Issues:	If the City were to be awarded the CDOT Mainstreets Grant, it would allow the City to shift A&I budget to another project. If the City were awarded both the CDOT Mainstreets grant and the Federal RAISE grant, the City would be able to construct both 6th Street and the 8th Street widening with grant funds. However, both 6th Street and 8th Street will need to be completed as State/Federally funded projects, increasing both the design and construction costs. Staff requested that the Transportation Commission provide its advice to City Council. The Transportation Commission recommended that City Council pursue the state and federal grant opportunities.
Staff Recommendation:	Move forward with grant funding applications for both projects. Obtain proposals from engineering firms to complete the designs to State/Federal requirements.



City Council
STAFF REPORT
City of Glenwood Springs
February 3, 2022

Agenda Item: Ordinance 2022-05; Amending Sections in Title 090 Public Lands

Action Requested: Approval of Ordinance 2022-05 amending sections of Title 090 of the Municipal Code regarding the regulation of Public Lands.

Department: Parks & Recreation

Strategic Goals: Provide Efficient and Responsive City Government
Generate Sustainable Economic Development

Background Info: City Council on June 17, 2021 discussed Ordinance 2021-06 regarding authorization of commercial use of the parks through a permitting system. Council voted 5-1, with Councilor Hershey voting no, to approve the ordinance on first reading.

Since that time, other changes to Title 090 have been identified as a need by staff. Ordinance 2022-05 includes the previously discussed changes to Title 090 including adding the ability for the City Manager to issue commercial activity permits. It also makes a small change to the rules and regulations for parks, the archery range, and cemeteries and amends 090.050.050 to use the Construction Trades Licenses section of Title 50 for commercial tree cutters.

On second reading of Ordinance 2022-05, there will be a companion resolution that includes regulations and fees for commercial permits.

Issues:

Staff Recommendation: Staff recommends approval of Ordinance 2022-04.

ORDINANCE NO. 05

Series of 2022

AN ORDINANCE OF THE CITY OF GLENWOOD SPRINGS, COLORADO AMENDING TITLE 090 OF THE GLENWOOD SPRINGS MUNICIPAL CODE.

WHEREAS, the City of Glenwood Springs (“Glenwood Springs” or the “City”) is a home-rule municipality organized under Article XX of the Colorado Constitution and with the authority of the Glenwood Springs Home Rule Charter; and

WHEREAS, pursuant to its home rule authority, the City, acting through its City Council (the “Council”), is authorized to adopt ordinances amending the Municipal Code; and

WHEREAS, the City owns and manages various properties around the City that are governed by Title 090 of the Glenwood Springs Municipal Code; and

WHEREAS, City staff have recommended amendments to Title 090 of the Glenwood Springs Municipal Code to address:

- a) where to find the cemetery rules and regulations;
- b) parks rules and regulations;
- c) the issuance of permits reserving park lands and structures; closing of park lands to public;
- d) licensing of commercial tree cutters; and

WHEREAS, the City Council finds and declares that the amendments to Title 090 set forth in **Exhibit A**, attached hereto and incorporated herein by this reference, are in the best interest of the City.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF GLENWOOD SPRINGS, COLORADO, AS FOLLOWS:

Section 1. The foregoing recitals are incorporated herein as if set forth in full.

Section 2. Title 090 of the Glenwood Springs Municipal Code is hereby amended as set forth in **Exhibit A** attached hereto.

Section 3. Any ordinances or resolutions or parts thereof, which are in conflict with this ordinance, are hereby repealed to the extent of such conflict only.

Section 4. With the exception of the provisions of the Municipal Code of the City of Glenwood Springs which are modified as provided herein, all remaining provisions of the Municipal Code of the City of Glenwood Springs shall remain in full force and effect.

INTRODUCED, READ ON FIRST READING, PASSED AND ORDERED
PUBLISHED BY TITLE ONLY THIS 3rd DAY OF FEBRUARY 2022.

CITY OF GLENWOOD SPRINGS, COLORADO

Jonathan Godes, Mayor

ATTEST:

Ryan Muse, City Clerk

INTRODUCED, READ ON SECOND READING, AND ORDERED PUBLISHED BY
TITLE ONLY TO BE EFFECTIVE TEN DAYS FOLLOWING THE DATE OF SECOND
PUBLICATION THIS _____ DAY OF _____ 2022.

CITY OF GLENWOOD SPRINGS, COLORADO

Jonathan Godes, Mayor

ATTEST:

Ryan Muse, City Clerk

Exhibit A

The following sections of the Municipal Code are amended as follows with double underlined text added and ~~strike through text deleted~~.

ARTICLE 090.020 CEMETERIES

090.020.010 Rules and regulations adopted.

- (a) *Adoption.* For the purposes of providing a just, equitable and practical method of safe, efficient and economical management of the cemeteries owned by the City, the City of Glenwood Springs Cemetery Rules and Regulations, ("Cemetery Rules and Regulations") promulgated by the City of Glenwood Springs, Colorado, are hereby adopted which shall be amended by City Council Resolution.
- (b) *Violations.* It shall be unlawful for any person to erect, construct, enlarge, alter, repair, move, improve, remove, demolish, equip or maintain any grave, grave lot, monument or vault or cause or permit the same to be done, or for any person to perform any other act prohibited or fail to perform any other act required by or contrary to and in violation of any of the provisions of the Cemetery Rules and Regulations, or any order issued by the City Manager pursuant to said Rules and Regulations.
- (c) *Penalties.* Any person violating any of the provisions of the Cemetery Rules and Regulations shall be deemed guilty of a misdemeanor and, upon conviction of the same, shall be punished in accordance with the provisions of Section 010.020.080.
- (d) *Conflicts.* If any provision of the Cemetery Rules and Regulations conflicts with any other provisions of this Code or any state or federal law or regulation, the other provision of this Code or state or federal law or regulation shall control.
- (e) *Copies.* Copies of the Cemetery Rules and Regulations are available for public inspection in the office of the City Clerk at 101 W. 8th Street, Glenwood Springs, Colorado and online at www.cogs.us.

ARTICLE 090.030 MUNICIPAL PARKS

090.030.030 Rules and regulations.

- (a) *Adoption.* For the purposes of providing a just, equitable and practical method of safe, efficient, and economical management of parklands owned by the City, the City of Glenwood Springs Parks Rules and Regulations, ("Parks Rules and Regulations") promulgated by the City of Glenwood Springs, Colorado, are hereby adopted which shall be amended by City Council Resolution.

(c) *Penalties.* Any person violating any of the provisions of the Parks Rules and Regulations shall be deemed guilty of a misdemeanor and, upon conviction of the same, shall be punished in accordance with the provisions of Section 010.020.080.

(d) *Conflicts.* If any provision of the Parks Rules and Regulations conflicts with any other provisions of this Code or any state or federal law or regulation, the other provision of this Code or state or federal law or regulation shall control.

(e) *Copies.* Copies of the Parks Rules and Regulations are available for public inspection in the office of the City Clerk at 101 W. 8th Street, Glenwood Springs, Colorado and online at www.cogs.us.

~~The City Council may adopt rules and regulations consistent with the provisions of this article to promote the public health, safety and general welfare of those persons utilizing the park lands.~~

090.030.040 Issuance of permits reserving park lands and structures; closing of park lands to public.

(a) *Permit required for exclusive use of a parkland or Parks and Recreation facility; attendance of 50+ participants and/or spectators; use of tents, structures, and/or sound amplification; selling or distributing alcohol and/or food to the public; any commercial activity selling goods and/or services.*

~~(a)~~ (b) *Permits.* The City Manager shall have the authority to issue written permits reserving park lands and structures in park lands. When no permit has been issued, the use of such areas shall follow generally the rules of first-come first-served.

(c) *Commercial Activity Permits.* The City Manager shall have the authority to issue written permits for commercial activities on City park lands. No commercial activity may be conducted without a permit.

(d) *Boat Ramp Commercial Use Permit.* The City Manager shall have the authority to issue written permits for commercial activities on City boat ramps. No commercial activity may be conducted without a permit.

~~(b)~~ (e) *Closing park lands.* Any section, part or the whole of any park land may be declared closed to the public by the City Manager at any time and for any interval of time, whether temporarily or at regular and stated intervals, daily or otherwise, and whether entirely or merely to certain uses, as the City Manager shall find reasonable and necessary.

~~090.030.050 Certain acts prohibited within park lands.~~

~~It shall be unlawful for any person to perform any of the following acts within the park lands, to-wit:~~

~~(1) To cut, mark, remove, break or climb upon or in any way injure, damage or deface the trees, shrubs, plants, turf or any of the building, fences, bridges or other structures.~~

~~(2) To pick or take away any vegetation.~~

~~(3) To build or place any tent, building, booth, stand or other structure without first having obtained a permit to do so from the City Manager.~~

- ~~(4) To build, light, make or use any fires, except in fireplaces and grills constructed for such purpose and under such rules and regulations as may be prescribed in the Article, or to leave the park without first having completely extinguished fires.~~
- ~~(5) To bring in any garbage, trash, refuse, fill materials or other waste materials for the purpose of dumping or depositing the same in the parkland, except upon the express consent of the City Manager.~~
- ~~(6) To deposit, throw or leave any litter, except in a receptacle or container provided for such purpose. If no receptacles are available, litter shall be carried away from the area to be properly disposed of elsewhere. For purposes of this subsection, litter is defined to include all rubbish, waste material, refuse, garbage, trash, debris or other foreign substance, solid or liquid of every form, size, kind and description.~~
- ~~(7) To bring in any glass bottle or glass container for any purpose whatsoever.~~
- ~~(8) Within the park lands located outside the territorial limits of the City, to violate any provision of this Code.~~
- ~~(9) To fail to observe or respect written permits issued by the City Manager.~~
- ~~(10) To conduct any commercial activity without a permit.~~
- ~~(10)(11) To violate any rule or regulation promulgated pursuant to this article.~~
- ~~(11)(12) To possess or carry a firearm or other weapon, as described in Article 120.030 of this Code. This prohibition shall not apply to City approved shooting ranges and persons using such shooting ranges as members, guests of members and law enforcement officers or at City approved events.~~
- ~~(12) To leave horses or livestock at the rodeo grounds unattended except pursuant to a valid special event permit.~~
- ~~(13) Smoke, as defined in Section 100.040.020.~~

~~090.030.060—Restriction on use of park lands for commercial rafting and related activities.~~

~~It shall be unlawful for any person engaged in the business of transporting people on the Roaring Fork or Colorado River for hire to use Veltus Park for access to or from the Roaring Fork River.~~

- ~~(b) It shall be unlawful for any person engaged in the business of transporting people on the Roaring Fork or Colorado River for hire to park or stand any vehicle used in said business in Two Rivers Park unless such vehicle is actively engaged in loading or unloading people or equipment.~~
- ~~(c) Any person or company engaged in the business of transporting people on the Roaring Fork or Colorado River for hire must obtain a permit from the City before using the ramp at Two Rivers Park for the loading and unloading of people or equipment into or out of the Rivers. Such ramp use shall include the disembarking of people for use of the pavilion and/or picnic~~

areas. Such ramp use permit shall be effective for one (1) calendar year. Each permit expires on December 31 of the calendar year. The annual ramp permit fee will be set by resolution of City Council.

- ~~(d) Each permittee shall also be assessed a fee as set by resolution of City Council for use of the ramp. A usage report and associated payment shall be provided to the City no later than December 1st of the current year.~~
- ~~(e) No permittee will proceed to the Two Rivers boat ramp until such time as it is clearly evident that space is available for him/her to load/unload safely. The ramp area will be kept clear at all times for loading and unloading activities.~~
- ~~(f) The ramp area is to be used for loading and unloading only. Loading/unloading time shall not exceed twenty (20) minutes.~~
- ~~(g) No vehicles will be left unattended at any time. Attended vehicles will not be left in the ramp area or adjoining loop for over thirty (30) minutes, space allowing.~~
- ~~(h) No storage parking of vehicles is allowed anywhere in the park. Commercial vehicles left unattended anywhere in the park are subject to ticketing and towing.~~
- ~~(i) No commercial staging activities shall occur in Two Rivers Park.~~
- ~~(j) All permittees shall abide by the rules and regulations for use of the boat ramp and Two Rivers Park which may be established from time to time by the City. All permittees are responsible for educating their employees about these rules and regulations.~~
- ~~(k) Trash containers, portable toilets and recycling containers are provided. Commercial companies will be responsible for keeping the area clean around these facilities used by their customers.~~
- ~~(l) Permittees shall use the area west of the boat ramp, as indicated on the map attached to the ordinance codified herein as a picnic area. If overcrowding occurs in this area, permittees will be allowed to use the Two Rivers Park picnic area. This provision does not imply that the area west of the boat ramp or that the Two Rivers Park picnic area are for the exclusive use of commercial permittees.~~
- ~~(m) Failure to abide by the City regulations can result in the permittee losing his/her permit to use the boat ramp in addition to any other penalties allowed by law. All violations will be reported to the Forest Service.~~
- ~~(n) Failure by a person or company to comply with any of these permitting and reporting requirements for the use of the ramp shall result in a fine of one hundred dollars (\$100.00) and the suspension of the right to use the ramp for one (1) week. Subsequent violations will result in a fine of two hundred fifty dollars (\$250.00) per violation and a twelve month suspension of the person's or company's use of the Two Rivers Park ramp, pavilion and picnic facilities.~~
- ~~(o) Reserved.~~

ARTICLE 090.050 STREET TREES

090.050.050 Licensing of commercial tree cutters.

- (a) *Purpose.* The purpose of this section is to protect the City and the citizens thereof and to protect and preserve trees in the City by assuring a minimum level of knowledge and competency on the part of all persons engaged in the business of cutting trees in the City.
- (b) *License required.* It shall be unlawful for any person to engage in the business of cutting, trimming, pruning or removing trees within the City without first procuring a contractor's license from the City. For purposes of this section, business is defined as any work for which a charge is made, either by a fixed sum, price, fee, wage, percentage, barter or any combination of these.
- ~~(c) *Application procedure.* Any person desiring a license pursuant to this section shall make application therefor at the Office of the Superintendent on forms to be provided by the Superintendent. Within ten (10) days after receipt of the application, the Superintendent shall examine the applicant either orally or in writing as he/she shall deem appropriate. At the discretion of the Superintendent, the examination may also include an actual demonstration of the applicant's ability. No license shall be issued or renewed without the approval of the Superintendent.~~
- ~~(d) *Insurance.* Every person granted a license under this section shall maintain at all times workers' compensation insurance, as well as public liability and property damage insurance in the following minimum amounts: seventy-five thousand dollars (\$75,000.00) coverage per occurrence, fifty thousand dollars (\$50,000.00) coverage for bodily injury and death per person, and ten thousand dollars (\$10,000.00) for property damage.~~
- ~~(e) *License fees, term and renewal.* No license shall be issued or renewed hereunder until the applicant has paid an annual license fee of seventy-five dollars (\$75.00). Every license issued hereunder shall expire twelve (12) calendar months after it is issued. Renewal applications may be submitted at the Office of the Superintendent any time within thirty (30) days of the date the license will expire.~~
- ~~(f) *Suspension or revocation of license.* Upon the verified complaint in writing by any person, the Superintendent may suspend or revoke any license issued hereunder for violations of this article or for violations of any rules or regulations promulgated pursuant to this article. The complaint shall be submitted in writing to the Superintendent and shall state the date, time and place of the violation for which the suspension or revocation of said license is requested. Before suspending or revoking any license pursuant to this section, the Superintendent shall first mail, by certified mail, a copy of the complaint to the license holder and give notice to the license holder of a date, not less than five (5) days after the date of mailing of such notice, on which the Superintendent will hold a hearing to determine whether or not such license should be suspended or revoked.~~
- ~~(g) *Appeal of suspension or revocation.* In the event of any suspension or revocation of a license by the Superintendent, the licensee shall have the right to appeal such suspension or revocation to the City Manager and thence to the City Council. An appeal of the Superintendent's decision must be submitted in writing to the Superintendent within ten (10) days after the suspension or revocation of the license or, if an appeal for the decision of the City Manager, within ten (10) days of his/her decision. The City Manager or the City Council shall have the power to affirm, reverse or modify the decision of the Superintendent or City Manager, respectively.~~



City Council
STAFF REPORT
City of Glenwood Springs
February 3, 2022

Agenda Item: Resolution 2022-07 Accepting Grant from CDOT Aeronautical for Fueling Systems

Action Requested: Approve resolution accepting grant funds for the airport fueling system

Department: Parks & Recreation

Strategic Goals: Ensure Public Safety

Background Info: The City received qualified bids to replace both the 100 low-lead and Jet A fueling systems. CDOT has agreed to fund 50% of our \$450,000 budget. This resolution allows the City to accept those grant funds.

Issues: NA

Staff Recommendation: Approval of Resolution 2022-08

RESOLUTION 2022-07

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF GLENWOOD SPRINGS, COLORADO, ACCEPTING A GRANT FROM THE COLORADO DEPARTMENT OF TRANSPORTATION AERONAUTICS DIVISION FOR THE PURCHASE AND INSTALLATION OF JET-A AND 100 LOW LEAD FUELING SYSTEMS AT THE GLENWOOD SPRINGS MUNICIPAL AIRPORT AND APPOINTING THE AIRPORT DIRECTOR AS PROJECT DIRECTOR

WHEREAS, The General Assembly of the State of Colorado declared in Title 43 of the Colorado Revised Statutes, Article 10, 1991 in CRS §43-10-101 (the Act) "... that there exists a need to promote the safe operations and accessibility of general aviation in this state; that improvements to general aviation transportation facilities will promote diversified economic development across the state; and that accessibility to airport facilities for residents of this state is crucial in the event of a medical or other type of emergency..."

WHEREAS, the Act created the Colorado Aeronautical Board ("the Board") to establish policy and procedures for distribution of monies in the Aviation Fund and created the Division of Aeronautics ("the Division") to carry out the directives of the Board, including technical and planning assistance to airports and the administration of the state aviation system grant program. SEE CRS §43-10-103 and C.R.S. §43-10-105 and CRS §43-10-108.5 of the Act.

WHEREAS, any eligible entity operating a public-accessible airport in the state may file an application for and be recipient of a grant to be used solely for aviation purposes. The Division is authorized to assist such airports as request assistance by means of a Resolution passed by the applicant's duly-authorized governing body, which understands that all funds shall be used exclusively for aviation purposes and that it will comply with all grant procedures, grant assurances and requirements as defined in the Division's Programs and Procedures Manual, ("the Manual") and the Airport Sponsor Assurances for Colorado Discretionary Aviation Grant Funding ("Grant Assurances") attached hereto as Exhibit A.

WHEREAS, the City of Glenwood Springs ("City") submitted an application for a grant from the CDOT Aeronautics Division to help defray the City's cost to source and install fuel tanks at the airport (the "Project"); and

WHEREAS, CDOT Aeronautics awarded the City a grant in the amount of \$225,000; and

WHEREAS, the City desires to accept the grant and enter into the grant agreement with CDOT Aeronautical.

NOW, THEREFORE, IT IS RESOLVED BY THE CITY COUNCIL OF THE CITY OF GLENWOOD SPRINGS, COLORADO, THAT:

Section 1. The above recitals are hereby incorporated as findings by the City.

Section 2. The City of Glenwood Springs City Council, as a duly authorized governing body of the grant applicant, hereby formally requests assistance from the Colorado Aeronautical Board and the Division of Aeronautics in the form of a state aviation system grant. The City of Glenwood

Springs states that such grant shall be used solely for aviation purposes, as determined by the State, and as generally described in the Application.

Section 3. By signing this Grant Agreement, the applicant commits to keep open and accessible for public use all grant funded facilities, improvements and services for their useful life, as determined by the Division and stated in the Grant Agreement and Grant Assurances.

Section 4. The City of Glenwood Springs hereby designates Meredith Fox as the Project Director, as described in the Manual and authorizes the Project Director to act in all matters relating to the work project proposed in the Application in its behalf, including executions of the Grant Agreement and any amendments.

Section 5. The City of Glenwood Springs has appropriated or will otherwise make available in a timely manner all funds, if any, that are required to be provided by the Applicant under the terms and conditions of the Grant Agreement.

Section 6. The City of Glenwood Springs hereby accepts all guidelines, procedures, standards, and requirements described in the Manual as applicable to the performance of the grant work and hereby approves the Grant Agreement submitted by the State, including all terms and conditions contained therein.

INTRODUCED, READ, AND PASSED THIS 3rd DAY OF FEBRUARY 2022.

CITY OF GLENWOOD SPRINGS, COLORADO

Jonathan Godes, Mayor

ATTEST:

Ryan Muse, City Clerk

Appendix B

Airport Sponsor Assurances for Colorado Discretionary Aviation Grant Funding

Approved January 22, 2018

I. APPLICABILITY

- a. These assurances shall be complied with by Airport Sponsors in the performance of all projects at airports that receive Colorado Department of Transportation – Division of Aeronautics (Division) Colorado Discretionary Aviation Grant (CDAG) funding for projects including but not limited to: master planning, land acquisition, equipment acquisition or capital improvement projects (Project). It is not the intent of these Assurances to expand existing Federal Aviation Administration (FAA) Grant Assurances for airports included in the National Plan of Integrated Airport Systems (NPIAS); as similar assurances already exist for acceptance of FAA funding.
- b. Upon acceptance of this grant agreement these assurances are incorporated in and become a part thereof.

II. DURATION

- a. The terms, conditions and assurances of the grant agreement shall remain in full force and effect throughout the useful life of the Project as defined in Table 1 (Useful Life), or if the airport for which the Project is funded ceases to function as a public airport, for twenty (20) years from the date of Project completion, whichever period is greater. However, there shall be no limit on the duration of the assurances with respect to real property acquired with CDAG Project funds.

III. COMPLIANCE

- a. Should an Airport Sponsor be notified to be in non-compliance with any terms of this agreement, they may become ineligible for future Division funding until such non-compliance is cured.
- b. If any Project is not used for aviation purposes during its Useful Life, or if the airport for which the Project is funded ceases to function as a public airport, for twenty (20) years from the date of Project completion or at any time during the estimated useful life of the Project as defined in Table 1, whichever period is greater, the Airport Sponsor may be liable for repayment to the Division of any or all funds contributed by the Division under this agreement. If the airport at which the Project is constructed is abandoned for any reason, the Division may in its discretion discharge the Airport Sponsor from any repayment obligation upon written request by the Airport Sponsor.

IV. AIRPORT SPONSOR GRANT ASSURANCES



1. **Compatible Land Use.** Compatible land use and planning in and around airports benefits the state aviation system by providing opportunities for safe airport development, preservation of airport and aircraft operations, protection of airport approaches, reduced potential for litigation and compliance with appropriate airport design standards. The airport will take appropriate action, to the extent reasonable, to restrict the use of land adjacent to, in the immediate vicinity of, or on the airport to activities and purposes compatible with normal airport operations, including landing and takeoff of aircraft.
2. **On-Airport Hazard Removal and Mitigation.** The airport will take appropriate action to protect aircraft operations to/from the airport and ensure paths are adequately cleared and protected by removing, lowering, relocating, marking, or lighting or otherwise mitigating existing airport hazards and by preventing the establishment or creation of future airport hazards.
3. **Safe, Efficient Use, and Preservation of Navigable Airspace.** The airport shall comply with 14 CFR Part 77 for all future airport development and anytime an existing airport development is altered.
4. **Operation and Maintenance.** In regards to Projects that receive Division funding, the airport sponsor certifies that it has the financial or other resources that may be necessary for the preventive maintenance, maintenance, repair and operation of such projects during their Useful Life.

The airport and all facilities which are necessary to serve the aeronautical users of the airport shall be operated at all times in a safe and serviceable condition. The airport will also have in effect arrangements for:

- a. Operating the airport's aeronautical facilities whenever required;
 - b. Promptly marking and lighting hazards resulting from airport conditions, including temporary conditions; and
 - c. Promptly notifying airmen of any condition affecting aeronautical use of the airport.
5. **Airport Revenues.** All revenues generated by the airport will be expended by it for the capital or operating costs of the airport, the local airport system, or other local facilities owned or operated by the owner or operator of the airport for aviation purposes.
 6. **Airport Layout Plan (ALP).** Once accomplished and as otherwise may be required to develop, it will keep up-to-date a minimum of an ALP of the airport showing (1) boundaries of the airport and all proposed additions thereto, together with the boundaries of all offsite areas owned or controlled by the sponsor for airport purposes and proposed additions thereto; (2) the location and nature of all existing and proposed airport facilities and structures (such as runways, taxiways, aprons, terminal buildings, hangars and roads), including all proposed extensions and reductions of existing airport facilities; and (3) the location of all existing improvements thereon.



7. **Use for Aviation Purposes.** The Airport Sponsor shall not use runways, taxiways, aprons, seeded areas or any other appurtenance or facility constructed, repaired, renovated or maintained under the terms of this Agreement for activities other than aviation purposes unless otherwise exempted by the Division.

TABLE 1

Project Type	Useful Life
a. All construction projects (unless listed separately below)	20 years
b. All equipment and vehicles	10 years
c. Pavement rehabilitation (not reconstruction, which is 20 years)	10 years
d. Asphalt seal coat, slurry seal, and joint sealing	3 years
e. Concrete joint replacement	7 years
f. Airfield lighting and signage	10 years
g. Navigational Aids	15 years
h. Buildings	40 years
i. Land	Unlimited



City Council
STAFF REPORT
City of Glenwood Springs
February 3, 2022

Agenda Item:	Resolution 2022-08; Accepting Grant from CDOT for Airport Runway
Action Requested:	Approval to accept grant funds
Department:	Parks & Recreation
Strategic Goals:	Preserve and Improve Infrastructure Ensure Public Safety
Background Info:	CDOT periodically commits funds to general aviation airports in Colorado to help defray the cost of runway maintenance. This resolution allows the City to accept those funds. CDOT is granting the City \$135,000 and the agreement requires the City to fund \$15,000 which will be included in the first supplemental appropriation. The Airport Fund currently has an unrestricted fund balance of \$64,000 not including any funds from CDOT for grants or from the Capital Projects Fund.
Issues:	NA
Staff Recommendation:	Approval of Resolution 2022-08

RESOLUTION 2022-08

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF GLENWOOD SPRINGS, COLORADO, ACCEPTING A GRANT FROM THE COLORADO DEPARTMENT OF TRANSPORTATION AERONAUTICS DIVISION FOR RUNWAY MAINTENANCE AT THE GLENWOODSPRINGS MUNICIPAL AIRPORT AND APPOINTING THE AIRPORT DIRECTOR AS PROJECT DIRECTOR

WHEREAS, The General Assembly of the State of Colorado declared in Title 43 of the Colorado Revised Statutes, Article 10, 1991 in CRS §43-10-101 (the Act) “... that there exists a need to promote the safe operations and accessibility of general aviation in this state; that improvements to general aviation transportation facilities will promote diversified economic development across the state; and that accessibility to airport facilities for residents of this state is crucial in the event of a medical or other type of emergency...”

WHEREAS, the Act created the Colorado Aeronautical Board (“the Board”) to establish policy and procedures for distribution of monies in the Aviation Fund and created the Division of Aeronautics (“the Division”) to carry out the directives of the Board, including technical and planning assistance to airports and the administration of the state aviation system grant program. SEE CRS §43-10-103 and C.R.S. §43-10-105 and CRS §43-10-108.5 of the Act.

WHEREAS, any eligible entity operating a public-accessible airport in the state may file an application for and be recipient of a grant to be used solely for aviation purposes. The Division is authorized to assist such airports as request assistance by means of a Resolution passed by the applicant’s duly-authorized governing body, which understands that all funds shall be used exclusively for aviation purposes and that it will comply with all grant procedures, grant assurances and requirements as defined in the Division’s Programs and Procedures Manual, (“the Manual”) and the Airport Sponsor Assurances for Colorado Discretionary Aviation Grant Funding (“Grant Assurances”) attached hereto as Exhibit A.

WHEREAS, the City of Glenwood Springs (“City”) submitted an application for a grant from the CDOT Aeronautics Division to help defray the City’s cost to maintain a safe and operational runway (the “Project”); and

WHEREAS, CDOT Aeronautics awarded the City a grant in the amount of \$135,000; and

WHEREAS, the City desires to accept the grant and enter into the grant agreement with CDOT Aeronautical.

NOW, THEREFORE, IT IS RESOLVED BY THE CITY COUNCIL OF THE CITY OF GLENWOOD SPRINGS, COLORADO, THAT:

Section 1. The above recitals are hereby incorporated as findings by the City.

Section 2. The City of Glenwood Springs City Council, as a duly authorized governing body of the grant applicant, hereby formally requests assistance from the Colorado Aeronautical Board and the Division of Aeronautics in the form of a state aviation system grant. The City of Glenwood Springs states that such grant shall be used solely for aviation purposes, as determined by the State,

and as generally described in the Application.

Section 3. By signing this Grant Agreement, the applicant commits to keep open and accessible for public use all grant funded facilities, improvements and services for their useful life, as determined by the Division and stated in the Grant Agreement and Grant Assurances.

Section 4. The City of Glenwood Springs hereby designates Meredith Fox as the Project Director, as described in the Manual and authorizes the Project Director to act in all matters relating to the work project proposed in the Application in its behalf, including executions of the Grant Agreement and any amendments.

Section 5. The City of Glenwood Springs has appropriated or will otherwise make available in a timely manner all funds, if any, that are required to be provided by the Applicant under the terms and conditions of the Grant Agreement.

Section 6. The City of Glenwood Springs hereby accepts all guidelines, procedures, standards, and requirements described in the Manual as applicable to the performance of the grant work and hereby approves the Grant Agreement submitted by the State, including all terms and conditions contained therein.

INTRODUCED, READ, AND PASSED THIS 3rd DAY OF FEBRUARY 2022.

CITY OF GLENWOOD SPRINGS, COLORADO

Jonathan Godes, Mayor

ATTEST:

Ryan Muse, City Clerk

Appendix B

Airport Sponsor Assurances for Colorado Discretionary Aviation Grant Funding

Approved January 22, 2018

I. APPLICABILITY

- a. These assurances shall be complied with by Airport Sponsors in the performance of all projects at airports that receive Colorado Department of Transportation – Division of Aeronautics (Division) Colorado Discretionary Aviation Grant (CDAG) funding for projects including but not limited to: master planning, land acquisition, equipment acquisition or capital improvement projects (Project). It is not the intent of these Assurances to expand existing Federal Aviation Administration (FAA) Grant Assurances for airports included in the National Plan of Integrated Airport Systems (NPIAS); as similar assurances already exist for acceptance of FAA funding.
- b. Upon acceptance of this grant agreement these assurances are incorporated in and become a part thereof.

II. DURATION

- a. The terms, conditions and assurances of the grant agreement shall remain in full force and effect throughout the useful life of the Project as defined in Table 1 (Useful Life), or if the airport for which the Project is funded ceases to function as a public airport, for twenty (20) years from the date of Project completion, whichever period is greater. However, there shall be no limit on the duration of the assurances with respect to real property acquired with CDAG Project funds.

III. COMPLIANCE

- a. Should an Airport Sponsor be notified to be in non-compliance with any terms of this agreement, they may become ineligible for future Division funding until such non-compliance is cured.
- b. If any Project is not used for aviation purposes during its Useful Life, or if the airport for which the Project is funded ceases to function as a public airport, for twenty (20) years from the date of Project completion or at any time during the estimated useful life of the Project as defined in Table 1, whichever period is greater, the Airport Sponsor may be liable for repayment to the Division of any or all funds contributed by the Division under this agreement. If the airport at which the Project is constructed is abandoned for any reason, the Division may in its discretion discharge the Airport Sponsor from any repayment obligation upon written request by the Airport Sponsor.

IV. AIRPORT SPONSOR GRANT ASSURANCES



1. **Compatible Land Use.** Compatible land use and planning in and around airports benefits the state aviation system by providing opportunities for safe airport development, preservation of airport and aircraft operations, protection of airport approaches, reduced potential for litigation and compliance with appropriate airport design standards. The airport will take appropriate action, to the extent reasonable, to restrict the use of land adjacent to, in the immediate vicinity of, or on the airport to activities and purposes compatible with normal airport operations, including landing and takeoff of aircraft.
2. **On-Airport Hazard Removal and Mitigation.** The airport will take appropriate action to protect aircraft operations to/from the airport and ensure paths are adequately cleared and protected by removing, lowering, relocating, marking, or lighting or otherwise mitigating existing airport hazards and by preventing the establishment or creation of future airport hazards.
3. **Safe, Efficient Use, and Preservation of Navigable Airspace.** The airport shall comply with 14 CFR Part 77 for all future airport development and anytime an existing airport development is altered.
4. **Operation and Maintenance.** In regards to Projects that receive Division funding, the airport sponsor certifies that it has the financial or other resources that may be necessary for the preventive maintenance, maintenance, repair and operation of such projects during their Useful Life.

The airport and all facilities which are necessary to serve the aeronautical users of the airport shall be operated at all times in a safe and serviceable condition. The airport will also have in effect arrangements for:

- a. Operating the airport's aeronautical facilities whenever required;
 - b. Promptly marking and lighting hazards resulting from airport conditions, including temporary conditions; and
 - c. Promptly notifying airmen of any condition affecting aeronautical use of the airport.
5. **Airport Revenues.** All revenues generated by the airport will be expended by it for the capital or operating costs of the airport, the local airport system, or other local facilities owned or operated by the owner or operator of the airport for aviation purposes.
 6. **Airport Layout Plan (ALP).** Once accomplished and as otherwise may be required to develop, it will keep up-to-date a minimum of an ALP of the airport showing (1) boundaries of the airport and all proposed additions thereto, together with the boundaries of all offsite areas owned or controlled by the sponsor for airport purposes and proposed additions thereto; (2) the location and nature of all existing and proposed airport facilities and structures (such as runways, taxiways, aprons, terminal buildings, hangars and roads), including all proposed extensions and reductions of existing airport facilities; and (3) the location of all existing improvements thereon.



7. **Use for Aviation Purposes.** The Airport Sponsor shall not use runways, taxiways, aprons, seeded areas or any other appurtenance or facility constructed, repaired, renovated or maintained under the terms of this Agreement for activities other than aviation purposes unless otherwise exempted by the Division.

TABLE 1

Project Type	Useful Life
a. All construction projects (unless listed separately below)	20 years
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d. Asphalt seal coat, slurry seal, and joint sealing	3 years
e. Concrete joint replacement	7 years
f. Airfield lighting and signage	10 years
g. Navigational Aids	15 years
h. Buildings	40 years
i. Land	Unlimited