



City Council Meeting Agenda

January 16, 2024
7:00 PM – Regular Meeting
Council Chambers
400 N. Douty St.

Council Members will meet in-person in the Council Chambers. The meeting will also be lived streamed on the City's website: <http://livestream.hanford.city/>

4:00 PM CALL TO ORDER STUDY SESSION AND CLOSED SESSION:

ROLL CALL BY THE CITY CLERK:

PUBLIC COMMENT:

*Study Sessions are considered Special Meetings under the Brown Act. Accordingly, comments from the public are limited to items listed on the agenda (GC 54954.3a). Public Comment will be accepted during each agenda item. A maximum of **three minutes** is allowed for each speaker. Please begin your comments by stating your name and providing your city of residence.*

STUDY SESSION:

- A. Presentation of the Annual Operations Report by Main Street Hanford and Overview of the Management Plan and proposed Activities and Proposed Improvements as required by the Annual Services Agreement between the City and Main Street Hanford.
- B. Council review of the elements of the Historic Overlay Zone and Direction on Possible Changes to Hanford Municipal Code Chapter 17.48.
- C. Presentation of the City's new logo, tagline, and associated branded materials.

CLOSED SESSION FOR DISCUSSION OF THE FOLLOWING:

- A. CONFERENCE WITH LEGAL COUNSEL - EXISTING LITIGATION (GC 54956.9)(d)(1))
Darlene Mata v. City of Hanford
Kings County Case No. 22C0077

B. CONFERENCE WITH LEGAL COUNSEL-ANTICIPATED LITIGATION (54956.9 (d)(2))

1 Potential Case.

C. CONFERENCE WITH LEGAL COUNSEL-ANTICIPATED LITIGATION (54956.9 (d)(4))

1 Potential Case.

CALL TO ORDER REGULAR SESSION:

ROLL CALL:

INVOCATION:

Andrea Lott

FLAG SALUTE:

RECOGNITION:

- A. Badge Pinning Ceremony and Oath of Office for the promotion of Stephanie Huddleston to Chief of Police, and the promotion of James Lutz to Police Captain

CLOSED SESSION ACTION REPORT:

COUNCIL REPORTS/GENERAL REPORTS:

Brief information-only reports from City Council and/or Staff, including committee reports and reports by City Council related to meetings attended at City expenses (AB1234).

PUBLIC COMMENT:

This is the time for citizens to comment on subject matters within the jurisdiction of the Hanford City Council. This is also the public's opportunity to request an item from the Consent Calendar be pulled for discussion purposes or to comment on any item on the agenda. State law does not allow the Council to discuss or take action on issues not on the agenda, except that members of the Council or staff may briefly respond to statements made or questions posed by persons exercising their public testimony rights (Gov. Code sec. 54954.2). A maximum of three minutes is allowed for each speaker. Please begin your comments by stating your name and providing your city of residence.

CONSENT CALENDAR:

Consent Calendar items are considered routine and will be enacted in one motion. There will be no separate discussion of these matters unless a request is made and then the item will be removed from the Consent Calendar to be discussed and voted upon by a separate motion.

- A. Procedural Waiver: Waive reading in full of resolutions and ordinances and approval and adoption of same by reading title the only.
- B. City Clerk: Approval of the Minutes of the December 5, 2023, Meeting
- C. City Clerk: Approval of the Reappointment of Richard Douglas to the Planning Commission, Carolyn Hudgins and Gregory Kelley to the Parks and Rec Commission, for their second terms, and Jim Nelson to the Parking and Traffic Commission for a full term.
- D. Community Development: Approval of the second reading and Adoption of Ordinance 23-05 and approving amendments to Hanford Municipal Code - 5.56 Commercial

Cannabis Activity and amendments to Hanford Municipal Code - 8.32 Cannabis

- E. Community Development: Adoption of a separate Commercial Cannabis Business Permit Application for all Non-Retail operations, consistent with previous Council direction.
- F. Public Works: Approval of a Notice of Completion for Tract 922, Unit 2, located at the southeast corner of 13th Avenue and Devon Street.
- G. Police: Acceptance of the 2023 Edward Byrne Memorial Justice Assistance Grant in the amount of \$23,456, amend the Police Department's operating budget by appropriation of the same amount in the General Fund, and authorize the City Manager to execute an MOU between the City of Hanford and the City of Lemoore (Police Department).
- H. Fire: Authorization for the City Manager to execute a sole source purchase of a Pierce Fire Engine from Golden State Fire Apparatus (Sacramento, CA) for \$960,525 and appropriate \$1,000,000 in the General Fund contingent on confirmation of \$1,000,000 in State grant funding

PUBLIC HEARING:

- A. Public Works: Public Hearing and consideration of approval of Resolution 24-02-R for City of Hanford water rate adjustments effective February 1, 2024 and continue the public hearing for wastewater and stormwater rates until February 6, 2024.

GENERAL BUSINESS:

- A. City Clerk: Discussion regarding the list of committees and boards that have City Council representation directly appointed by the Council and Appointment of those members as appropriate.
- B. Administration: Council discussion and selection of Council members to be part of the interview panels that are necessary to fill the upcoming City Commission vacancies.
- C. City Attorney: Settlement Agreement Darlene Mata v. City of Hanford, Art Brieno

COUNCIL COMMENTS AND COMMUNICATIONS:

At this time, any Council Member may ask a question for clarification, make an announcement, or report briefly on their activities. In addition, subject to Council Policies and Procedures, they may request staff to report back to the Council at a subsequent meeting concerning any matter or take action to direct staff to place a matter of business on a future agenda. (GOV. CODE SEC. 54954.2)

- A. Council Future Agenda Items
- B. Upcoming Events and Important Dates:
 - January 15 through January 31: Dump your Christmas tree at a City Drop-Off Site - Public Works 900 S. 10th Ave. or City Well Site 2288 W. Grangeville Blvd.
 - February 6: Regular City Council Meeting
 - February 19: City offices closed in observance of Presidents' Day
 - February 20: Regular City Council Meeting

ADJOURNMENT:

Materials related to an item on this Agenda submitted to the City Council after distribution of the agenda packet are available to public inspection in the City Clerk's Office located at 319 N. Douty Street, Hanford, California 93230, during normal business hours. Such agendas are also available at the city's website, www.cityofhanfordca.com subject to staff's ability to post the agenda before the meeting.

If you need a disability-related modification or accommodation, including auxiliary aids or services, to participate in this meeting, please contact the City Clerk's office, 559-585-2515, 319 N. Douty Street, Hanford, California 93230, at least 2 days prior to the meeting {28 CFR 35.102.35.104 ADA Title II}



AGENDA STAFF REPORT

MEETING DATE: 1/16/2024

AGENDA SECTION: STUDY SESSION

SUBJECT:

Presentation of the Annual Operations Report by Main Street Hanford and Overview of the Management Plan and proposed Activities and Proposed Improvements as required by the Annual Services Agreement between the City and Main Street Hanford.

RECOMMENDATION:

Recommendation: That the City Council receive the annual report and provide direction, as appropriate, related to the contract.

BACKGROUND:

FISCAL IMPACT:

ATTACHMENTS:

None



AGENDA STAFF REPORT

MEETING DATE: 1/16/2024

AGENDA SECTION: STUDY SESSION

SUBJECT:

Council review of the elements of the Historic Overlay Zone and Direction on Possible Changes to Hanford Municipal Code Chapter 17.48.

RECOMMENDATION:

Recommendation: That the City Council receive a presentation from staff, Review the elements of the Historic Overlay Zone and Provide direction on possible changes to Hanford Municipal Code Chapter 17.48 Historic Overlay Zone

BACKGROUND:

Hanford Municipal Code Chapter 17.48 Historic Overlay Zone (HMC 17.48) provides the framework by which changes and development in the Downtown may occur. HMC 17.48 provides the process for designating historic buildings, the regulations for modifying buildings, the design criteria for new and existing buildings and it also establishes the historic resource permit process.

Council has requested that staff evaluate different options for modifying HMC 17.48 to simplify the historic resource permit process, while also preserving the structures and character of the Downtown.

Staff will provide the Council with information regarding the current process, identify possible alternatives, and seek input on potential next steps and possible changes to HMC 17.48.

FISCAL IMPACT:

ATTACHMENTS:

None



AGENDA STAFF REPORT

MEETING DATE: 1/16/2024	AGENDA SECTION: STUDY SESSION
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SUBJECT:

Presentation of the City's new logo, tagline, and associated branded materials.

RECOMMENDATION:

Recommendation: That the City Council receive the presentation and review the brand guidelines associated with the new logo and tagline.

BACKGROUND:

In July of 2023, City staff entered into a contract with Fresno advertising agency Jeffrey Scott Agency (JSA) to design a new, supplemental logo and tagline to be used for official city materials, in addition to the City's current seal. Cities and counties across the state and country use supplemental logos as a way to create professional, consistent and unique identities and connect with residents and visitors. The City's new logo will also assist staff with various marketing efforts, from retail recruitment to tourism and events.

Included in the project's scope of work were:

- Supplemental logo to the City's seal
- Copywriting
- Brand guide + branded materials
- Account management

Although the City hired JSA, the process was very collaborative and included many meetings, revisions and discussions before staff made its selections. During the presentation, staff will unveil the new logo, tagline, icons, as well as some of the branded materials, such as new business cards and letterhead. A brand guide (also known as brand guidelines or a brand style guide) will also be available to review. The guide will ensure the new logo is used consistently and appropriately by City staff and any third-parties.

FISCAL IMPACT:

None

ATTACHMENTS:

None



AGENDA STAFF REPORT

MEETING DATE: 1/16/2024	AGENDA SECTION: CONSENT CALENDAR
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SUBJECT:

Approval of the Minutes of the December 5, 2023, Meeting

RECOMMENDATION:

Recommendation: Approve the minutes of the December 5, 2023, Meeting.

BACKGROUND:**FISCAL IMPACT:****ATTACHMENTS:**

1. Minutes 12.5.2023



City Council Regular Meeting Minutes

December 5, 2023 7:00 PM
Council Chambers
400 N. Douty St.

5:00 PM CALL TO ORDER STUDY SESSION AND CLOSED SESSION:

Mayor Paden called the study session and closed session to order at 5:00 p.m.

ROLL CALL BY THE CITY CLERK:

Present:	Absent:
Council Member Lou Martinez Council Member Kalish Morrow Council Member Mark Kairis Council Member Diane Sharp Council Member Travis Paden	

PUBLIC COMMENT:

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Bob Ramos commented on the proposed revenue measure.

STUDY SESSION:

- A. Presentation to Council regarding a variety of Zoning Ordinance Clean-Up Items and direction on future amendments.

Senior Planner Gabrielle Myers and Deputy City Manager Waters discussed the zoning ordinances and the recommended amendments for the Council's review and direction. Staff answered questions from the Council throughout the presentation. Council provided their feedback and direction regarding the ordinances discussed. Staff did not get through all the zoning ordinances during this study session. The remaining zoning ordinance will be presented at a future study session.

- B. Presentation, discussion and direction from Council regarding a 2024 Proposed Revenue Measure development process and schedule

Finance Director Chris Tavaréz discussed a potential revenue measure development process for the Council's review and direction. Each of the Department Heads discussed their department's needs. After some discussion, the Council directed staff to begin developing an advisory committee to receive staff presentations regarding potential details of a

proposed revenue measure. Staff will begin recruiting for the advisory committee. Applications will be presented at the January 16th city council meeting for the Council's review and direction.

CLOSED SESSION FOR DISCUSSION OF THE FOLLOWING:

A. PUBLIC EMPLOYEE PERFORMANCE EVALUATION (GC 54957)

Title: City Manager

CALL TO ORDER REGULAR SESSION:

Mayor Paden called the meeting to order at 7:02 p.m.

ROLL CALL:

Present:	Absent:
Council Member Lou Martinez Council Member Kalish Morrow Council Member Mark Kairis Council Member Diane Sharp Council Member Travis Paden	

INVOCATION:

The invocation was led by Pastor Tim Brown.

FLAG SALUTE:

The flag salute was led by Cassidy Hutton, the Woodrow Wilson Jr. High School Secretary of Law and Order.

CLOSED SESSION ACTION REPORT :

City Attorney Ty Mizote provided the closed session action report for the November 7th closed session discussion for the property at 330 N. Harris Street. The escrow on the property was terminated per the Council's direction.

RECOGNITION:

A. Recognition of Ashelynnne Mora and Ildegar Julian Mora for their service as City of Hanford Fitness Court Ambassadors from March-December 2023

Parks and Community Services Director Brad Albert and Community Relations Manager Brain Johnson presented certificates of recognition to Ashelynnne and Ilgar Mora for their participation.

B. Badge Pinning Ceremony and Oath of Office for Officer Michael Angel and Officer Wesley Corral

Interim Police Chief Amoroso introduced the new officers, and City Clerk Natalie Corral administered the oath of office to Officer Wesley Corral and Officer Michael Angel.

COUNCIL REPORTS/GENERAL REPORTS:

Brief information-only reports from City Council and/or Staff, including committee reports and reports by City Council related to meetings attended at City expenses (AB1234).

The Council discussed the meetings and events they attended.

PUBLIC COMMENT:

This is the time for citizens to comment on subject matters within the jurisdiction of the Hanford City Council. This is also the public's opportunity to request an item from the Consent Calendar be pulled for discussion purposes or to comment on any item on the agenda. State law does not allow the Council to discuss or take action on issues not on the agenda, except that members of the Council or staff may briefly respond to statements made or questions posed by persons exercising their public testimony rights (Gov. Code sec. 54954.2). A maximum of three minutes is allowed for each speaker. Please begin your comments by stating your name and providing your city of residence.

Pastor Steve Luna thanked the city for all thier hard work. He also expressed his concerns regarding the letter he received from the Fire Department about the fireworks booths.

Tyler Pepe commented on the fireworks booth letter.

Robert Stoffer expressed his concerns about the Fire Department's fireworks booth letter. He requested a follow-up from the Chief.

City Manager Cifuentez addressed the public comments about the letter sent out by the Fire Department. He apologized and explained that he was unaware of the letter. The City Manager announced the city would retract the letter.

Jeni Lefler shared her concerns about resources available to military veterans.

Charlie Gossple commented on the youth sports organizations and expressed his concerns regarding the proposed field permitting fees.

Mallory Moran expressed her concerns regarding the proposed field permitting fees.

Victor Chavarin commented on the fireworks booth letter. He also commented on the proposed field permitting fees.

Nick Wagner commented on the Christmas parade.

John Langshaw commented on the homeless people in his neighborhood and explained that it is effecting his rental property. He asked for help from the Council. City Manager Cifuentez respond to his comment.

REORGANIZATION OF THE CITY COUNCIL-SELECTION OF THE MAYOR AND VICE MAYOR:

City Attorney Mizote explained the reorganization process and called for the nominations for Mayor and Vice Mayor.

Council Member Martinez nominated Travis Paden for Mayor. Council Member Morrow nominated Mark Kairis for Mayor. The Council approved Travis Paden for Mayor (3-2).

Council Member Martinez nominated Mark Kairis for Vice Mayor. The Council approved Mark Kairis for Vice Mayor (5-0).

RECESS:

Recess 7:55 p.m. - 8:00 p.m.

CONSENT CALENDAR:

Consent Calendar items are considered routine and will be enacted in one motion. There will be no separate discussion of these matters unless a request is made and then the item will be removed from the Consent Calendar to be discussed and voted upon by a separate motion.

Motion to Approve.

RESULT:	Passed (UNANIMOUS)
MOVER:	Council Member Diane Sharp
SECONDER:	Council Member Lou Martinez
AYES:	Diane Sharp, Mark Kairis, Kalish Morrow, Travis Paden, Lou Martinez

- A. Procedural Waiver: Waive reading in full of resolutions and ordinances and approval and adoption of same by reading title the only.

- B. City Clerk: Approval of the Minutes of the November 6, 2023 Special Meeting
- C. City Clerk: Appointment of Gary Curtis to the Planning Commission's unscheduled vacancy with a term ending on 12/31/2025.
- D. Human Resources: Approval of the City of Hanford Salary Schedules, pursuant to the California Code of Regulations (CCR) 570.5, the California Public Employees' Retirement System (CalPERS), and Authorization for City administration to amend all other documents as may be necessary to implement the updates.
- E. Parks and Community Services: Award of a contract to CleanCut Landscape (Clovis, CA), in an amount not to exceed \$1,862,725 annually, for Landscape Assessment District (LAD) Landscaping Services and Authorization for the City Manager to execute the professional services agreement.
- F. Community Development: Approval of Historic Resources Permit HRA0011-23, which includes staff's recommendation to retroactively approve the placement of stucco on the façade, to place a stone veneer, awnings, and signage on the exterior of the existing noncontributing building at 124 E. Seventh St. (APN 012-041-006).
- G. Public Works: Approval of an increase in the Appropriation of \$35,767.73, from the Water Capital Reserves Fund, to fund the purchase of a utility service truck.
- H. Public Works: Approve the sole source purchase of three (3) front load refuse trucks from Rucksteel in Fresno, CA, and appropriation of \$1,373.008.01 from the Refuse Capital Reserves Fund (0307) to fund the purchase.
- I. Finance: Acceptance and authorization for staff to File the City of Hanford's Quarterly Investment Portfolio and Transactions Reports as of 09/30/2023.
- J. Administration: Approval of the annual contract renewal with Integrated Avian Solutions to continue to provide Falconer services in Downtown Hanford, for an amount not to exceed \$53,600 for Calendar Year 2024.

PUBLIC HEARING:

- A. Community Development: Introduction of Ordinance No. 23-05, Amending Chapters 5.56-Commercial Cannabis Activity and 8.32-Cannabis of the Hanford Municipal Code to simply the process related to commercial cannabis operations; Not Retail.

Council Member Sharp and the City Attorney Mizote recused themselves from the discussion. City Attorney Christina Filippo replaced Mr. Mizote at the dais for the rest of the meeting. Mayor Paden opened the public hearing at 8:04 p.m. Deputy City Manager Waters presented the staff report and answered questions from the Council.

Public Comment:

IN FAVOR
None

OPPOSED:

None

Motion to Approve.

RESULT: Passed
MOVER: Council Member Kairis
SECONDER: Council Member Morrow
AYES: Mark Kairis, Kalish Morrow, Travis Paden, Lou Martinez
ABSTAIN: Diane Sharp

Mayor Paden closed the public hearing at 8:11 p.m.

GENERAL BUSINESS:

- A. Public Works: Award of a contract to Sage Construction and Development of Tulare, CA in the amount of \$601,630.04 for the Civic Auditorium Acoustic Ceiling Texture Replacement, Hardwood Floor Installation, and Interior Painting Project, including the additive alternate bid item for the Hardwood Floor replacement in the Lobby of the Auditorium and Appropriation of an additional \$113,254 from the General Fund to fully fund the project including the 10% contingency.

Public Works Director Russ Sterling discussed the project, and answered questions from the Council. Council Member Sharp questioned the paint colors. She also encouraged staff to hire a professional to assist with selecting the paint color for the Civic Auditorium. She also offered to assist with the cost of hiring a professional to select the appropriate paint colors. City Manager Cifuentez discussed the upcoming 100th anniversary of the Civic Auditorium and discussed the importance of choosing the paint colors. Staff answered questions from the Council.

Motion to Approve.

RESULT: Passed (UNANIMOUS)
MOVER: Council Member Mark Kairis
SECONDER: Council Member Diane Sharp
AYES: Diane Sharp, Mark Kairis, Kalish Morrow, Travis Paden, Lou Martinez

- B. Parks and Community Services: Approval of the establishment of a sport field permit fee to be set at \$2.50 per field hour effective on July 1, 2024 with an allowance of a fee reduction (offset) of up to 25% based on repairs and maintenance provided by the sports leagues.

Parks and Community Services Director Brad Albert discussed the establishment of a sport field permit fee effective July 1, 2024. Dir. Albert also discussed the formation of the Field Sports Advisory Committee (FSAC), and the utility expenses for all three sports complexes. Dir. Albert addressed the public comments and answered questions from the Council. Council Members Sharp and Morrow spoke in support of the proposed fees. Mayor Paden expressed his concerns and suggested more time before approving the fees. After much discussion, Council Member Morrow made the motion to approve the item as presented.

Motion to Approve.

RESULT: Passed
MOVER: Council Member Morrow
SECONDER: Council Member Sharp
AYES: Diane Sharp, Mark Kairis, Kalish Morrow
NAYS: Travis Paden, Lou Martinez

- C. City Clerk: Review and Approval of the 2024 Calendar of City Council Meetings

City Manager Cifuentez presented the calendar for the Council's review and approval.

Motion to Approve.

RESULT: Passed (UNANIMOUS)
MOVER: Council Member Mark Kairis
SECONDER: Council Member Lou Martinez

AYES: Diane Sharp, Mark Kairis, Kalish Morrow, Travis Paden, Lou Martinez

D. City Attorney: Approval of the Amended and Restated City Manager Employment Agreement

City Manager Cifuetz recused himself during the presentation and discussion. Human Resources Manager Sarah Cardoza presented the agreement and discussed the changes to the agreement for the Council's review and approval.

Motion to Approve.

RESULT: Passed (UNANIMOUS)
MOVER: Council Member Mark Kairis
SECONDER: Council Member Kalish Morrow
AYES: Diane Sharp, Mark Kairis, Kalish Morrow, Travis Paden, Lou Martinez

COUNCIL COMMENTS AND COMMUNICATIONS:

At this time, any Council Member may ask a question for clarification, make an announcement, or report briefly on their activities. In addition, subject to Council Policies and Procedures, they may request staff to report back to the Council at a subsequent meeting concerning any matter or take action to direct staff to place a matter of business on a future agenda. (GOV. CODE SEC. 54954.2)

A. Council Future Agenda Items

Council Member Martinez expressed his concerns regarding the use of the Longfield Center. The Council directed staff to prepare a study session regarding the Longfield Center for the Council's review and discussion. Council Member Martinez also requested an update regarding the homeless camp on Hume Ave. and Shepard Dr.

B. Upcoming Events and Important Dates:

December 9: Stuff the Swat Truck Toy Drive at Hanford Target 140 N. 12th Ave 10:00 a.m - 2:00 p.m.
December 16: Walk with a Doc at Centennial Park 9:00 a.m. - 10:00 a.m.
December 25 & 26: City offices will be closed for Christmas
Every Saturday in December: Free Fitness Court Classes at Hidden Valley Park 9:00 a.m. - 10:00 a.m.

ADJOURNMENT:

Mayor Paden adjourned the meeting at 9:19 p.m.

Respectfully submitted,

Natalie Corral
City Clerk



AGENDA STAFF REPORT

MEETING DATE: 1/16/2024

AGENDA SECTION: CONSENT CALENDAR

SUBJECT:

Approval of the Reappointment of Richard Douglas to the Planning Commission, Carolyn Hudgins and Gregory Kelley to the Parks and Rec Commission, for their second terms, and Jim Nelson to the Parking and Traffic Commission for a full term.

RECOMMENDATION:

Recommendation: That the Mayor, with the approval of the full City Council:

Reappoint Richard Douglas to the Planning Commission, Carolyn Hudgins and Gregory Kelley to the Parks and Rec Commission, for a second term, expiring on 12/31/2027 and Jim Nelson to the Parking and Traffic Commission for a full term that will expire on 12/31/2027.

BACKGROUND:

Commissioners Douglas, Hudgins, and Kelley, are eligible for a second term and have expressed their interest in continuing to serve their community. Mr. Neslon was appointed to the Parking and Traffic Commission vacancy with a term ending on 12/31/2023. Mr. Nelson is eligible for reappointment, and he has expressed interest in continuing to serve his community for a full term that will expire on 12/31/2027.

Section 2.20.030 of the City of Hanford Municipal Code states that:

"At the first city council meeting in January of each year, the mayor shall endeavor to appoint members to commissions and committees, to fill vacancies caused by the regular expiration of terms of membership. All such appointments shall be approved by a majority of the members of the city council."

"All vacancies shall be advertised so that any interested citizen may apply. City residency shall be required for all commission members and shall be confirmed by each applicant and each member under penalty of perjury. The city may require a member to confirm his or her residency throughout the member's term. (Ord. 21-05 § 3, 2021; prior code § 2-8.03)"

In addition to expiring terms, each of the city's alternate commissioner seats are vacant. The Clerk's office has received seven (7) applications in response to recruitment efforts. The City Clerk is working with staff to coordinate interviews to fill all vacancies. Staff's recommendations will be presented to the Council in February for review and approval.

FISCAL IMPACT:

There will be some cost to the General Fund for Commissioner training but it is budgeted annually in the corresponding departmental budgets and totals less than \$10,000 for all commissions.

ATTACHMENTS:

None



AGENDA STAFF REPORT

MEETING DATE: 1/16/2024	AGENDA SECTION: CONSENT CALENDAR
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SUBJECT:

Approval of the second reading and Adoption of Ordinance 23-05 and approving amendments to Hanford Municipal Code - 5.56 Commercial Cannabis Activity and amendments to Hanford Municipal Code - 8.32 Cannabis

RECOMMENDATION:

Recommendation: That the City Council, by motion, Approve the second reading and Adoption of Ordinance 23-05 and approve amendments to Hanford Municipal Code - 5.56 Commercial Cannabis Activity and amendments to Hanford Municipal Code - 8.32 Cannabis

BACKGROUND:

At the May 16th, 2023 City Council Meeting, City Council authorized Staff to update the City's cannabis licensing process to simplify the cannabis business permit process for applicants and City staff. Several amendments to the municipal code were needed in order to meet the Council's goals. The proposed amendments to the Municipal Code primarily fall into two categories:

1. Simplification of the Application Process: The proposed amendments would authorize Council to approve a "Commercial Cannabis Business Permit Application" that guides the commercial cannabis business license application process. The application review and renewal process has been simplified for staff and applicants.
2. Remove or Change Outdated or Unnecessary Language: Several changes to state law and the state's approval process have occurred since the original adoption of HMC 5.56 and HMC 8.32 and language has been updated to reflect those changes. Clarifying language was also provided in some instances.

In addition to the proposed ordinance changes, an update to the Commercial Cannabis Business Permit Application is needed to expedite and improve the City's cannabis permitting process. The Commercial Cannabis Business Permit Application outlines the process by which potential cannabis businesses can receive approval to operate in Hanford. Staff are not proposing changes to the number of cannabis businesses allowed within Hanford or changing the location or safety requirements for cannabis businesses. The application process for Cannabis Storefront Retail licenses, previously established by Council, will remain the same and are not part of the proposed changes to the application process.

Staff has attached a strikethrough version of the final amendments to the Hanford Municipal Code to show the proposed changes.

FISCAL IMPACT:**ATTACHMENTS:**

1. Cannabis Ordinance Changes 2nd Reading
2. Ordinance 23-05

5.56 Commercial Cannabis Activity

5.56.010 Purpose and intent.

It is the purpose and intent of this chapter to accommodate the needs of medically-ill persons in need of cannabis for medical purposes, as advised and recommended by their health care provider(s), and to implement the Adult Use Cannabis Act, which was passed by the voters of California while imposing regulations on the use of land to protect the city's neighborhoods, residents, and businesses from negative impacts. It is a further purpose and intent of this chapter to regulate the cultivation, manufacturing, processing, testing, transporting, delivery, and distribution of cannabis and cannabis-related products in a manner which is responsible, which protects the health, safety, and welfare of the residents of Hanford, and to enforce rules and regulations consistent with state law. In part to meet these objectives, an annual permit shall be required to own and/or to operate a commercial cannabis business within Hanford. Nothing in this chapter is intended to authorize the possession, use, or provision of cannabis for purposes which violate state or federal law. The provisions of this chapter are in addition to any other permits, licenses and approvals which may be required to conduct business in the city, and are in addition to any permits, licenses and approval required under state, county, or other law. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019; Ord. 17-08 § 2, 2017)

5.56.020 Legal authority.

Pursuant to Sections 5 and 7 of Article XI of the California Constitution, and the provisions of the Medical Cannabis Regulation and Safety Act (hereinafter "MCRSA"), and the Adult Use Cannabis Act (hereinafter "AUMA"), the city of Hanford is authorized to adopt ordinances that establish standards, requirements and regulations for local licenses and permits for cannabis and cannabis-related activity. Any standards, requirements, and regulations regarding health and safety, security, and worker protections established by the state of California, or any of its departments or divisions, shall be the minimum standards applicable in the city of Hanford to cannabis, and/or cannabis-related activity. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019; Ord. 17-08 § 2, 2017)

5.56.030 Cannabis cultivation and commercial cannabis business activities prohibited unless specifically authorized by this chapter.

Except as specifically authorized in this chapter, the cultivation, possession, ~~manufacture~~ manufacturing, processing, storing, laboratory testing, labeling, transporting, dispensing, distribution, delivery, or sale of cannabis or cannabis product is expressly prohibited in the city of Hanford. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019; Ord. 17-08 § 2, 2017)

5.56.040 Compliance with state and local laws.

It is the responsibility of the owners and operators of the commercial cannabis business to ensure that it is, always, operating in a manner compliant with all applicable state and local laws, and any regulations promulgated thereunder. Nothing in this chapter shall be construed as authorizing any actions which violate federal, state law or local law with respect to the operation of a commercial cannabis business. It shall be the responsibility of the owners and the operators of the commercial cannabis business to ensure that the commercial cannabis business is, at all times, operating in a manner compliant with all applicable federal, state and local laws, ~~the 2008 Attorney General Guidelines,~~ and any subsequently enacted state law or regulatory, licensing, or certification

requirements, and any specific, additional operating procedures or requirements which may be imposed as conditions of approval of the commercial cannabis business permit. Nothing in this chapter shall be construed as authorizing any actions which violate federal or state law regarding the operation of a commercial cannabis business. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019; Ord. 17-08 § 2, 2017)

5.56.050 Definitions.

When used in this chapter, the following words shall have the meanings ascribed to them as set forth herein. Any reference to California statutes includes any regulations promulgated thereunder, and is deemed to include any successor or amended version of the referenced statute or regulatory provision.

~~“Bureau” means the Bureau of Cannabis Control within the California Department of Consumer Affairs.~~

“Cannabis” refers to “marijuana,” and means all parts of the Cannabis sativa, Cannabis indica, or Cannabis ruderalis, whether medical or nonmedical, growing or not; the seeds thereof; the resin, whether crude or purified, extracted from any part of the plant; and every compound, manufacture, salt, derivative, mixture, or preparation of the plant, its seeds, or resin. The meaning of “Cannabis” also includes means the separated resin, whether crude or purified, obtained from cannabis. The meaning of “Cannabis” also includes means marijuana as defined by Section 11018 of the California Health and Safety Code as enacted by Chapter 14017 of the Statutes of 1972. “Cannabis” does not include the mature stalks of the plant, fiber produced from the stalks, oil or cake made from the seeds of the plant, any other compound, manufacture, salt, derivative, mixture, or preparation of the mature stalks (except the resin extracted therefrom), fiber, oil, or cake, or the sterilized seed of the plant which is incapable of germination. For the purpose of this chapter, “cannabis” does not mean industrial hemp as that term is defined by Section 81000 of the California Food and Agricultural Code or Section 11018.5 of the California Health and Safety Code.

“Cannabis business park” means a park or campus that is one contiguous commercial area of land which has many cannabis related businesses grouped together. Each individual business is clearly defined, having a unique entrance and immovable physical barriers between uniquely licensed premises.

“Cannabis concentrate” means manufactured cannabis that has undergone a process to concentrate the cannabinoid active ingredient, thereby increasing the product’s potency.

“Cannabis product” means a product containing cannabis, including, but not limited to, manufactured cannabis intended to be sold for use by cannabis patients in California pursuant to the Compassionate Use Act of 1996 (Proposition 215), found at Section 11362.5 of the California Health and Safety Code (as the same may be amended from time to time) or pursuant to the Adult Use of Marijuana Act. For purposes of this chapter, “medical cannabis” does not include industrial hemp as defined by Section 81000 of the California Food and Agricultural Code or Section 11018.5 of the California Health and Safety Code.

“Canopy” means all areas occupied by any portion of a cannabis plant, inclusive of all vertical planes, whether contiguous or noncontiguous on any one site.

“Caregiver” or “primary caregiver” has the same meaning as that term is defined in Section 11362.7 of the California Health and Safety Code.

“City” or “city of Hanford” means the city of Hanford, a California general law city.

“Commercial cannabis activity” includes cultivation, manufacture, processing, laboratory testing, transporting, delivery, distribution, or sale of cannabis product, within the meaning of California Business and Professions Code Section 26001 and California Business and Professions Code Section 26050, et seq.

“Commercial cannabis business” means any business or operation which engages in cannabis activity.

“Commercial cannabis business permit” means a regulatory permit issued by the city of Hanford pursuant to this chapter to a commercial cannabis business, and is required before any commercial cannabis activity may be conducted in the city. The initial permit and annual renewal of a commercial cannabis business permit is made expressly contingent upon the business’s ongoing compliance with all of the requirements of this chapter and any regulations adopted by the city governing the commercial cannabis activity at issue.

“Cultivation” means any activity, whether occurring indoors or outdoors, involving the propagation, planting, growing, harvesting, drying, curing, grading, and/or trimming of cannabis plants or any part thereof for any purpose, including cannabis.

“Cultivation site” means a facility where cannabis is cultivated, propagated, planted, grown, harvested, dried, cured, graded, or trimmed, or that does all or any combination of those activities, and where the operator holds a valid commercial cannabis business permit for cultivation from the city of Hanford and a valid state license to cultivate cannabis as required by state law.

“Delivery” means the commercial transfer of cannabis or cannabis products from a dispensary, up to an amount determined to be authorized by the state of California, or any of its departments or divisions, to anyone for any purpose. “Delivery” also includes the use by a dispensary of any technology platform owned, controlled, and/or licensed by the dispensary, or independently licensed by the state of California under the MCRSA or AUMA (as the same may be amended from time-to-time), that enables anyone to arrange for or facilitate the commercial transfer by a licensed dispensary of cannabis or cannabis products.

~~“Department” — “Bureau” means the Bureau of Cannabis Control within the California Department of Consumer Affairs.~~
Department of Cannabis Control.

“Dispensary” means a commercial cannabis business facility where cannabis, cannabis products, or devices for the use of cannabis or cannabis products are offered, either individually or in any combination, for retail sale, including an establishment (whether fixed or mobile) that delivers, pursuant to express authorization, cannabis and cannabis products as part of a retail sale, and where the operator holds a valid commercial cannabis business permit from the city of Hanford authorizing the operation of a dispensary, and a valid state license as required by state law to operate a dispensary.

“Dispensing” means any activity involving the retail sale of cannabis or cannabis products from a dispensary.

“Distribution” means the wholesale procurement and sale of cannabis or cannabis products between entities licensed pursuant to MCRSA, AUMA and any subsequent state of California legislation regarding the same.

“Distributor” means a person holding a valid commercial cannabis business permit for distribution issued by the city of Hanford, and, a valid state license for distribution, required by state law to engage in the business of purchasing cannabis from a licensed cultivator, or cannabis products from a license manufacturer, for sale to a licensed dispensary.

“Dried flower” means all dead cannabis that has been harvested, dried, cured, or otherwise processed, excluding leaves and stems.

“Edible cannabis product” means manufactured cannabis that is intended to be used, in whole or in part, for human consumption. An edible cannabis product is not considered food as defined by Section 109935 of the California Health and Safety Code or a drug as defined by Section 109925 of the California Health and Safety Code. An edible cannabis product shall not be deemed to be adulterated pursuant to Section 19347.6 of the Business and Professions Code solely because it contains cannabis.

“Greenhouse” means a fully enclosed permanent structure that is clad in transparent material with climate control, such as heating and ventilation capabilities and supplemental artificial lighting, and that uses a combination of natural and supplemental lighting for cultivation.

“Live plants” means living cannabis flowers and plants, including seeds, sprouts, immature plants (including unrooted clones), and vegetative stage plants.

“Manufactured cannabis” means raw cannabis that has undergone a process whereby the raw agricultural product has been transformed into a concentrate, extraction or other manufactured product intended for internal consumption through inhalation or oral ingestion or for topical application.

“Manufacturer” means a person that conducts the production, preparation, propagation, or compounding of manufactured cannabis, as defined in this section, or cannabis products either directly or indirectly or by extraction methods, or independently by means of chemical synthesis at a fixed location that packages or repackages cannabis or cannabis products or labels or relabels its container, where the operator holds a valid commercial cannabis business permit for manufacturing from the city of Hanford and, after January 1, 2018 or as soon as permitted by the state granting agency, department or division, a valid state license for manufacturing pursuant to MCRSA and/or AUMA. A manufacturer may also be a person that infuses cannabis in its products but does not perform its own extraction.

“Manufacturing site” means a location that produces, prepares, propagates, or compounds cannabis or cannabis products, directly or indirectly, by extraction methods, independently by means of chemical synthesis, or by a combination of extraction and chemical synthesis, and is owned and operated by a person issued a valid commercial cannabis business permit for manufacturing from the city of Hanford and, a valid state license as required for manufacturing of cannabis products.

“Microbusiness” has the same meaning as that contained in Section 26070(a)(3) of the Business and Professions Code of the State of California.

“Nursery” means a person that produces only clones, immature plants, seeds and other agricultural products used specifically for the planting, propagation, and cultivation of cannabis.

“Patient” or “qualified patient” has the same definition as California Health and Safety Code Section 11362.7 et seq., as it may be amended, and which means a person who is entitled to the protections of California Health and Safety Code Section 11362.5.

“Person” means an individual, firm, partnership, joint venture, association, corporation, limited liability company, estate, trust, business trust, receiver, syndicate, or any other group or combination acting as a unit and includes the plural as well as the singular number.

“Person with an identification card” has the meaning given that term by California Health and Safety Code Section 11362.7.

“State license” means a permit or license issued by the state of California, or one of its departments or divisions, under MCRSA or AUMA to engage in commercial cannabis activity.

“Topical cannabis” means a product intended for external application and/or absorption through the skin. A topical cannabis product is not considered a drug as defined by Section 109925 of the California Health and Safety Code.

“Testing laboratory” means a facility, entity, or site in the city of Hanford that offers or performs tests of cannabis or cannabis products and that is both of the following:

1. Accredited by an accrediting body that is independent from all other persons involved in the cannabis industry in the state.
2. Licensed by the ~~Bureau of Cannabis Control~~Department of Cannabis Control, and is owned and operated by a person issued a valid commercial cannabis business permit for laboratory testing from the city of Hanford.

“Transport” means the transfer of cannabis products from the permitted business location of one licensee to the permitted business location of another licensee, for the purposes of conducting commercial cannabis activity authorized by the MCRSA and/or AUMA.

“Transporter” means a person issued a state license, and a commercial cannabis business permit by the city of Hanford, authorizing the transport of cannabis or cannabis products in amounts authorized by the state of California, or by one of its departments or divisions under the MCRSA and/or AUMA. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019; Ord. 17-08 § 2, 2017)

5.56.060 Commercial cannabis business permit required to engage in commercial cannabis business.

A. No person may engage in any commercial cannabis business or activity within the city of Hanford including cultivation, manufacturing~~ing~~ing, processing, laboratory testing, transporting, dispensing, distribution, or sale of cannabis or a cannabis product unless the person: (1) has a valid commercial cannabis business permit from the city of Hanford; and (2) is currently in compliance with all applicable state and local laws and regulations pertaining to the commercial cannabis business or activities, including the duty to obtain any required state licenses.

5.56.065 Conditional use permit required.

A. All proposed sites for a cannabis business require a conditional use permit. Prior to, or concurrently with, applying for a commercial cannabis business permit, the applicant shall process a conditional use permit. The cannabis conditional use permit shall run with the cannabis business permit and not the land. Each use shall require a conditional use permit.

~~—B. Until Health and Safety Code Section 11362.775, subdivision (a), is repealed, the city intends that person's eligible to operate collectives or cooperatives under that subdivision shall be eligible to apply for a city permit to conduct commercial cannabis activities, but only to the degree those activities are authorized under state law for collectives and cooperatives. When the Health and Safety Code Section 11362.775, subdivision (a), is repealed, or as soon as collectives and cooperatives are no longer permitted to engage in commercial cannabis activity under state law, any city permit holder operating a commercial cannabis business under a collective or cooperative who has not already obtained a state license for the commercial cannabis activities they are engaged in shall automatically forfeit his or her city commercial cannabis business permit. At that point, they shall no longer be authorized to engage in any commercial cannabis activities in the city until they obtain both a city issued commercial cannabis business permit and a state license for that commercial cannabis activity. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019; Ord. 17-08 § 2, 2017)~~

5.56.070 Cannabis employee permit required.

A. Any person who is an employee, independent contractor, or who otherwise works or volunteers within a commercial cannabis business must be legally authorized to do so under applicable state law. ~~Employees, workers, or volunteers at businesses that are permitted by the city of Hanford as cannabis business cultivators, manufacturers, distributors, or delivers that are operating pursuant to Health and Safety Code Section 11362.775(a) as collectives or cooperatives until that subsection is repealed must be qualified patients or primary caregivers as required by state law.~~

B. Any person who is an employee, independent contractor, or who otherwise works or volunteers within a commercial cannabis business must obtain a commercial cannabis employee work permit from the city prior to performing any work at any commercial cannabis business.

C. Applications for a commercial cannabis employee work permit shall be developed and made available by the city manager or their designee(s), and shall include, but not be limited to, the following information:

1. Name, address, and phone number of the applicant;
2. Age and verification of applicant. A copy of a birth certificate, driver's license, government issued identification card, passport or other proof that the applicant is at least twenty-one (21) years of age must be submitted with the application;
3. Name, address of the commercial cannabis businesses where the person will be employed, and the name of the primary manager of that business;
4. A list of any crimes enumerated in California Business and Professions Code Section 26507(b)(4) for which the applicant has been convicted;

~~—5. Name, address, and contact person for any previous employers from which the applicant was fired, resigned, or asked to leave and the reasons for such dismissal or firing;~~

56. The application shall be accompanied by fingerprints and a recent photograph of the applicant in a form and manner as required by the chief of police or designee(s);

76. A signed statement under penalty of perjury that the information provided is true and correct;

~~8. If applicable, verification that the applicant is a qualified patient or primary caregiver;~~

97. A fee paid in an amount set by resolution of the city council in an amount necessary to cover the costs of administering the employee work permit programs. The fee is non-refundable and shall not be returned in the event the work permit is denied or revoked.

D. The chief of police or designee(s) shall conduct a background check to determine whether the applicant was convicted of a crime or left a previous employer for reasons that show the applicant:

1. Has been convicted of a crime involving dishonesty, fraud or deceit, including but not limited to fraud, forgery, theft, or embezzlement as those offenses are defined in California Penal Code Sections 186.11, 470, 484, and 504a, respectively; or equivalent offenses in other states.

2. Has committed a felony or misdemeanor involving fraud, deceit, embezzlement; or

3. Was convicted of a violent felony, a crime of moral turpitude; or

4. Has illegally used, possessed, transported, distributed or similar activities related to controlled substances, as defined in the Federal Controlled Substances Act, except for cannabis related offenses for which the conviction occurred after the passage of the Compassionate Use Act of 1996.

Discovery of these facts showing that the applicant has been convicted of a crime involving dishonesty, fraud, embezzlement, or deceit are grounds for denial of the permit. Where the applicant's sentence (including any term of probation, incarceration, or supervised release) for possession of, possession for sale, sale, manufacture, transportation, or cultivation of a controlled substance is completed, such underlying conviction shall not be the sole ground for denial of a commercial cannabis work permit. Furthermore, an applicant shall not be denied a permit if the denial is based solely on any of the following: (a) a conviction for any crime listed in subsection (D)(4) of this section for which the applicant has obtained a certificate of rehabilitation pursuant to Chapter 3.5 (commencing with Section 4852.01) of Title 6 of Part 3 of the California Penal Code; or (b) a conviction that was subsequently dismissed pursuant to Section 1203.4, 1203.4a, or 1203.41 of the California Penal Code or any other provision of state law allowing for dismissal of a conviction.

E. The city manager or designee(s) shall issue the commercial cannabis work permit or a written denial to the applicant within ninety (90) days of the date the application was deemed complete. Upon the request of a commercial cannabis business and while processing the application for a work permit, the city manager or designee(s) may issue a temporary work permit for an employee if the business demonstrates to the city manager or designee(s) that the employee is necessary for the operation of the business. The temporary permit may be immediately revoked by the city manager or designee(s) upon determination that the applicant has failed the background check.

F. A work permit shall be valid for a twelve (12) month period and must be renewed on an annual basis. Renewal applications shall contain all the information required in subsection B of this section

including the payment of a renewal application fee in an amount to be set by resolution of the city council.

G. In the event a person changes employment from one commercial cannabis business in the city to another, the work permit holder shall notify the city manager or designee(s) in writing of the change within ten (10) days, or the work permit shall be suspended or revoked and such person shall not be permitted to work at any commercial cannabis business in the city.

H. The city may immediately revoke the commercial cannabis work permit should the permit holder be convicted of a crime listed in subsections C and D of this section or if facts become known to the chief of police or designee(s) that the permit holder has engaged in activities showing that he or she is dishonest.

I. The city manager or designee(s) is hereby authorized to promulgate all regulations necessary to implement the work permit process and requirements.

J. The applicant may appeal the denial or revocation of a commercial cannabis work permit by filing a notice of appeal with the city clerk within ten (10) days of the date the applicant received the notice of denial, which appeal shall be conducted as set forth in Section 5.56.140 of this chapter.

K. The city manager or designee(s) shall issue a permit in the form of a personal identification card that can be worn by the employee. The personal identification card shall be worn approximately chest-high on their outermost garment, in a prominent and visible location. The identification card shall be maintained in good and readable condition at all times. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019; Ord. 17-08 § 2, 2017)

5.56.080 Maximum number and type of authorized commercial cannabis businesses permitted.

The number of each type of commercial cannabis business that shall be permitted to operate in the city shall be established by resolution of the city council.

A. This section is only intended to create a maximum number of commercial cannabis businesses that may be issued permits to operate in the city under each category. Nothing in this chapter creates a mandate that the city issue any or all of the commercial cannabis business permits if it is determined that the applicants do not meet the standards which are established in the application requirements or further amendments to the application process.

B. At any time, in the city council's discretion, the city council may reassess the number of commercial cannabis business permits which are authorized for issuance. The city council, in its discretion, may determine by resolution that the number of commercial cannabis permits should stay the same, or be expanded. (Ord. 19-03 § 4, 2019; Ord. 17-08 § 2, 2017)

5.56.090 ~~Initial~~ application procedure.

A. The city council shall adopt by resolution the procedures which will govern the application process, and the manner in which the decision will ultimately be made regarding the issuance of any commercial cannabis business permit(s). The city manager or designee(s) is hereby authorized to prepare the necessary forms, adopt any necessary rules to the application, regulations and processes,

solicit applications, conduct initial evaluations of the applicants, and to ultimately select the applicant(s) that will be awarded a permit.

B. At the time of filing, each applicant shall pay an application fee established by resolution of the City Council, to cover all costs incurred by the city in the application process.

C. ~~After the initial review, the~~ The city manager or designee(s) will select the applicant(s) to be awarded a permit based upon the available permits and the ~~ranking of the applicants during the review process.~~adopted procedures.

D. The City's Reservation of Rights. The city reserves the right to reject any or all applications for any reason that is not illegal. The city may also modify, postpone, or cancel any request for applications, or the entire program under this chapter, at any time without liability, obligation, or commitment to any party, firm, or organization. Persons submitting applications assume the risk that all or any part of the program, or any particular category of permit potentially authorized under this chapter, may be cancelled at any time prior to permit issuance. The city further reserves the right to request and obtain additional information from any candidate submitting an application. In addition to any other justification provided, a failure to comply with other requirements in this chapter, an application risks being rejected for any of the following reasons:

1. Proposal received after designated time and date.
2. Proposal not containing the required elements, exhibits, nor organized in the required format.
3. Proposal considered not fully responsive to this request for permit application.
4. Proposal contains excess or extraneous material not called for in the request for permit application. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019; Ord. 17-08 § 2, 2017)

5.56.100 Expiration of commercial cannabis business permits.

Each commercial cannabis business permit issued pursuant to this chapter shall expire ~~twelve (12) months after the date of its issuance~~December 31st of each year. Commercial cannabis permits may be renewed as provided in Section 5.56.120. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019; Ord. 17-08 § 2, 2017)

5.56.110 Revocation of permits.

Commercial cannabis business permits may be revoked for any violation of any law and/or any rule, regulation and/or standard adopted pursuant to this chapter. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019; Ord. 17-08 § 2, 2017)

5.56.120 Renewal applications.

A. An application for renewal of a commercial cannabis business permit shall be filed at least thirty (30) calendar days prior to the expiration date of the current permit.

B. The renewal application shall contain all the information required for new applications.

C. The applicant shall pay a fee in an amount to be set by the city council to cover the costs of processing the renewal permit application, together with any costs incurred by the city to administer the program created under this chapter.

D. An application for renewal of a commercial cannabis business permit may be rejected if any of the following exists:

1. The application is filed less than thirty (30) days before its expiration.
2. The commercial cannabis business permit is suspended or revoked at the time of the application.
3. The commercial cannabis business has not been in regular and continuous operation in the four (4) months prior to the renewal application.
4. The commercial cannabis business has failed to conform to the requirements of this chapter, or of any regulations adopted pursuant to this chapter.
5. The permittee fails or is unable to renew its state of California license.
6. If the city or state has determined, based on substantial evidence, that the permittee or applicant is in violation of the requirements of this chapter, of the city's municipal code, or of the state rules and regulations, and the city or state has determined that the violation is grounds for termination or revocation of the commercial cannabis business permit.

E. The city manager or designee(s) is authorized to make all decisions concerning the issuance of a renewal permit. In making the decision, the city manager or designee(s) is authorized to impose additional conditions to a renewal permit, if it is determined to be necessary to ensure compliance with state or local laws and regulations or to preserve the public health, safety or welfare. Appeals from the decision of the city manager or designee(s) shall be handled pursuant to Section 5.56.140.

F. If a renewal application is rejected, a person may file a new application pursuant to this chapter no sooner than one year from the date of the rejection. An application may be approved, conditionally approved, or rejected at the discretion of the city manager or designee(s). Any correction required for a conditionally approved application must be done in a timely manner as set forth by the city manager or designee(s). (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019; Ord. 17-08 § 2, 2017)

5.56.130 Effect of state license suspension, revocation, or termination.

Suspension of a license issued by the state of California, or by any of its departments or divisions, shall immediately suspend the ability of a commercial cannabis business to operate within the city, until the state of California, or its respective department or division, reinstates or reissues the state license. Should the state of California, or any of its departments or divisions, revoke or terminate the license of a commercial cannabis business, such revocation or termination shall also revoke or terminate the ability of a commercial cannabis business to operate within the city of Hanford. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019; Ord. 17-08 § 2, 2017)

5.56.140 Appeals.

Unless specifically provided elsewhere to the contrary, an appeal of a city decision or action occurring under this chapter from the city manager or designee(s) shall be conducted as prescribed hereinafter. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019; Ord. 17-08 § 2, 2017)

5.56.150 Written request for appeal.

A. Within ten (10) calendar days after the date of a decision or action of the city manager or designee(s) occurring pursuant to this chapter, an aggrieved party may appeal such action by filing a written appeal with the city clerk setting forth the reasons why the decision was not proper. The failure to file a timely appeal shall constitute the failure to exhaust administrative remedies.

B. At the time of filing the appellant shall pay the designated appeal fee, established by resolution of the city council from time to time. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019; Ord. 17-08 § 2, 2017)

5.56.160 Appeal hearing process.

A. Upon receipt of the written appeal, the city clerk shall set the matter for a hearing before the city council or its designee. The city council or its designee shall hear the matter de novo.

B. The appeal shall be held within a reasonable time after the filing the appeal, but in no event later than ninety (90) days from the date of such filing. The city shall notify the appellant of the time and location at least ten (10) days prior to the date of the hearing.

C. At the hearing, the appellant may present any information they deem relevant to the decision appealed. The formal rules of evidence and procedure applicable in a court of law shall not apply to the hearing.

D. The failure of an appealing party to appear at the appeal hearing shall constitute a failure to exhaust their administrative remedies.

E. At the conclusion of the hearing the city council or its designee may affirm, reverse or modify the decision appealed. The decision of the city council or its designee shall be final.

F. Following the appeal hearing, an aggrieved party may seek judicial review of the city council or its designee's appeal decision by filing a complaint with the Superior Court of Kings County, California during the period identified by California Code of Civil Procedure Section 1094.6, as may be amended. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019; Ord. 17-08 § 2, 2017)

5.56.170 Permittee selection process.

A. The city manager or designee(s) shall develop procedures and review criteria by which the applicants for a commercial cannabis business permit shall be evaluated.

B. Applications shall be vetted by the city manager or designee(s) and may include a committee of his or her choice or his or her designee's choice. At the conclusion of the vetting process, ~~the committee shall prepare a report ranking the applications~~ or requesting approval of an applicant shall be and submitted that report for consideration to the city manager or designee(s). The recommendations shall include a summary of the concerns which need to be mitigated by the applicant prior to the issuance of the permit.

C. At least twenty (20) days prior to the selection of the applicants, notice shall be sent to all property owners located within five hundred (500) feet of the proposed business locations of each of the finalists to be considered.

D. The city manager or designee(s) shall either deny or approve the final candidates. The decision of the city manager or designee(s) shall be subject to appeal in accordance with the appeal provisions of this chapter.

E. Official issuance of the commercial cannabis business permit(s), however, is conditioned upon the prevailing candidate(s) obtaining all required land use approvals. Following the selection, the prevailing candidate(s) shall apply to the city's community development department to obtain any required land use approvals or entitlements for the permittee's location, if any. Land use approvals shall include compliance with all applicable provisions of CEQA. The city manager or designee(s) shall formally issue the commercial cannabis business permit(s) once it has been affirmed that all of the required land use approvals have been obtained.

F. Issuance of a commercial cannabis business permit does not create a land use entitlement. The commercial cannabis business permit shall only be for a maximum term of twelve (12) months, and shall expire on December 31st each year ~~at the end of the twelve (12) month period~~ unless it is renewed as provided herein. Furthermore, no permittee may begin operations, notwithstanding the issuance of a permit, unless all of the state and local laws and regulations, including, but not limited to, the requirements of this chapter and of the permit, have been complied with.

G. Notwithstanding anything in this chapter to the contrary, the city reserves the right to reject any or all applications if it determines it would be in the best interest of the city, taking into account any health, safety and welfare impacts on the community. Applicants shall have no right to a commercial cannabis business permit until a permit is actually issued, and then only for the duration of the permits term. Each applicant assumes the risk that, at any time prior to the issuance of a permit, the city council may terminate or delay the program created under this chapter.

H. If an application is denied, a new application may not be filed for one year from the date of the denial.

I. ~~Each~~ Upon receipt of a commercial cannabis business permit applicants ~~applicant granted a commercial cannabis business permit~~ shall be required to pay the permit fee established by resolution of the city council, to cover the costs of administering the commercial cannabis business permit program created in this chapter. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019; Ord. 17-08 § 2, 2017)

5.56.180 Change in location—Updated registration form.

A. Any time the dispensing, cultivation, manufacturing, transportation and/or distribution location specified in the regulatory permit is changed, the applicant shall re-register with the city manager or designee(s). The process and the fees for re-registration shall be the same as the process and fees set forth for registration in Sections 5.56.090 and 5.56.120.

B. Within fifteen (15) calendar days of any other change in the information provided in the registration form or any change in status of compliance with the provisions of this chapter, including any change in the commercial cannabis business ownership or management members, the applicant shall

file an updated registration form with the city manager or designee(s) for review along with a registration amendment fee, as set forth in Sections 5.56.090 and 5.56.120. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019; Ord. 17-08 § 2, 2017)

5.56.185 Sale and assignment of license.

No commercial cannabis business permit may be sold, assigned, or otherwise transferred without the approval of the city manager or designee(s). As a condition of approval, the proposed purchaser, assignee, or transferee of a commercial cannabis business permit shall undergo the application and approval process described in Section 5.56.090 above. (Ord. 21-06 § 3, 2021)

5.56.190 City business license.

Prior to commencing operations, a commercial cannabis business shall obtain a city of Hanford business license. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019; Ord. 17-08 § 2, 2017)

5.56.200 Building permits and inspection.

Prior to commencing operations, a commercial cannabis business shall be subject to a mandatory building inspection, and must obtain all required permits and approvals which would otherwise be required for any business of the same size and intensity operating in that zone. This includes, but is not limited to, obtaining any required building permit(s), fire department approvals, health department approvals and other zoning and land use permit(s) and approvals. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019; Ord. 17-08 § 2, 2017)

5.56.210 Certification from the city manager or designee(s).

Prior to commencing operations, a commercial cannabis business must obtain a certification from the city manager or designee(s) certifying that the business is located on a site that meets all of the requirements of Title 17 of the city's municipal code. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019; Ord. 17-08 § 2, 2017)

5.56.220 Right to occupy and to use property.

As a condition precedent to the city's issuance of a commercial cannabis business permit pursuant to this chapter, any person intending to open and to operate a commercial cannabis business shall provide sufficient evidence of the legal right to occupy and to use the proposed location. In the event the proposed location will be leased from another person, the applicant shall be required to provide a signed and notarized statement from the owner of the property, acknowledging that the property owner has read this chapter and consents to the operation of the commercial cannabis business on the owner's property. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019; Ord. 17-08 § 2, 2017)

5.56.230 Limitations on city's liability.

To the fullest extent permitted by law, the city of Hanford shall not assume any liability whatsoever with respect to having issued a commercial cannabis business permit pursuant to this chapter or otherwise approving the operation of any commercial cannabis business. As a condition to the approval of any commercial cannabis business permit, the applicant shall be required to meet all of the following conditions before they can receive the commercial cannabis business permit:

A. They must execute an agreement, in a form approved by the city attorney, agreeing to indemnify, defend (at applicant's sole cost and expense), and hold the city of Hanford, and its officers, officials, employees, representatives, and agents, harmless, from any and all claims, losses, damages, injuries, liabilities or losses which arise out of, or which are in any way related to, the city's issuance of the commercial cannabis business permit, the city's decision to approve the operation of the commercial cannabis business or activity, the process used by the city in making its decision, or the alleged violation of any federal, state or local laws by the commercial cannabis business or any of its officers, employees or agents.

B. Maintain insurance at coverage limits, and with conditions thereon determined necessary and appropriate from time to time by the city attorney.

C. Reimburse the city of Hanford for all costs and expenses, including, but not limited to, attorney fees and costs and court costs, which the city of Hanford may be required to pay as a result of any legal challenge related to the city's approval of the applicant's commercial cannabis business permit, or related to the city's approval of a commercial cannabis activity. The city of Hanford may, at its sole discretion, participate at its own expense in the defense of any such action, but such participation shall not relieve any of the obligations imposed hereunder. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019; Ord. 17-08 § 2, 2017)

5.56.240 Records and recordkeeping.

A. Each owner and operator of a commercial cannabis business shall maintain accurate books and records in an electronic format, detailing all of the revenues and expenses of the business, and all of its assets and liabilities. On no less than an annual basis (at or before the time of the renewal of a commercial cannabis business permit issued pursuant to this chapter), or at any time upon reasonable request of the city, each commercial cannabis business shall file a sworn statement detailing the number of sales by the commercial cannabis business during the previous twelve (12) month period (or shorter period based upon the timing of the request), provided on a per-month basis. The statement shall also include gross sales for each month, and all applicable taxes paid or due to be paid. On an annual basis, each owner and operator shall submit to the city a financial audit of the business's operations conducted by an independent certified public accountant. Each permittee shall be subject to a regulatory compliance review and financial audit as determined by the city manager or designee(s).

B. Each owner and operator of a commercial cannabis business shall maintain a current register of the names and the contact information (including the name, address, and telephone number) of anyone owning or holding an interest in the commercial cannabis business, and separately of all the officers, managers, employees, agents and volunteers currently employed or otherwise engaged by the commercial cannabis business. The register required by this paragraph shall be provided to the city manager or designee(s) upon a reasonable request.

C. Each commercial cannabis business shall maintain a record of all persons, patients, collectives and primary caregivers served by the commercial cannabis business, for a period of no less than four (4) years.

D. All commercial cannabis businesses shall maintain an inventory control and reporting system that accurately documents the present location, amounts, and descriptions of all cannabis and cannabis

products for all stages of the growing and production or manufacturing, laboratory testing and distribution processes until purchase by or distribution to a qualified patient, primary caregiver for purpose or an adult twenty-one (21) years of age or older who qualifies to purchase cannabis as set forth in AUMA.

E. Subject to any restrictions under the Health Insurance Portability and Accountability Act (HIPPA) regulations, each commercial cannabis business shall allow city of Hanford officials to have access to the business's books, records, accounts, together with any other data or documents relevant to its permitted commercial cannabis activities, for the purpose of conducting an audit or examination. Books, records, accounts, and any and all relevant data or documents will be produced no later than twenty-four (24) hours after receipt of the city's request, unless otherwise stipulated by the city. The city may require the materials to be submitted in an electronic format that is compatible with the city's software and hardware. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019; Ord. 17-08 § 2, 2017)

5.56.250 Security measures.

A. A permitted commercial cannabis business shall implement sufficient security measures to deter and prevent the unauthorized entrance into areas containing cannabis or cannabis products, and to deter and prevent the theft of cannabis or cannabis products at the commercial cannabis business. Except as may otherwise be determined by the chief of police or designee(s), these security measures shall include, but shall not be limited to, all of the following:

1. Preventing individuals from remaining on the premises of the commercial cannabis business if they are not engaging in an activity directly related to the permitted operations of the commercial cannabis business.

2. Establishing limited access areas accessible only to authorized commercial cannabis business personnel.

3. Except for live growing plants which are being cultivated at a cultivation facility, all cannabis and cannabis products shall be stored in a secured and locked room, safe, or vault. All cannabis and cannabis products, including live plants which are being cultivated, shall be kept in a manner as to prevent diversion, theft, and loss.

4. Installing twenty-four (24) hour security surveillance cameras of at least HD-quality to monitor all entrances and exits to and from the premises, all interior spaces within the commercial cannabis business which are open and accessible to the public, all interior spaces where cannabis, cash or currency, is being stored for any period of time on a regular basis and all interior spaces where diversion of cannabis could reasonably occur. The commercial cannabis business shall be responsible for ensuring that the security surveillance camera's footage is remotely accessible by the Hanford police department, and that it is compatible with the city's software and hardware. In addition, remote and real-time, live access to the video footage from the cameras shall be provided to the Hanford police department. Video recordings shall be maintained for a minimum of forty-five (45) days, and shall be made available to the Hanford police department upon request. Video shall be of sufficient quality for effective prosecution of any crime found to have occurred on the site of the commercial cannabis business.

5. Sensors shall be installed to detect entry and exit from all secure areas.

6. Panic buttons shall be installed in all commercial cannabis businesses.
 7. Having a professionally installed, maintained, and monitored alarm system.
 8. Any bars installed on the windows or the doors of the commercial cannabis business shall be installed only on the interior of the building.
 9. Security personnel shall be on-site twenty-four (24) hours a day or alternative security as authorized by the chief of police or designee(s). Security personnel must be licensed by the State of California Bureau of Security and Investigative Services personnel and shall be subject to the prior review and approval of the Hanford police department, with such approval not to be unreasonably withheld.
 10. Each commercial cannabis business shall have the capability to remain secure during a power outage and shall ensure that all access doors are not solely controlled by an electronic access panel to ensure that locks are not released during a power outage.
- B. Each commercial cannabis business shall identify a designated security representative or liaison to the city of Hanford, who shall be reasonably available to meet with the chief of police or designee(s) regarding any security related measures or any operational issues.
- C. As part of the application and permitting process each commercial cannabis business shall have a storage and transportation plan, which describes in detail the procedures for safely and securely storing and transporting all cannabis, cannabis products, and any currency.
- D. The commercial cannabis business shall cooperate with the city whenever the city manager or designee(s) makes a request, upon reasonable notice to the commercial cannabis business, to inspect or audit the effectiveness of any security plan or of any other requirement of this chapter.
- E. A commercial cannabis business shall notify the city manager or designee(s) within twenty-four (24) hours after discovering any of the following:
1. Significant discrepancies identified during inventory. The level of significance shall be determined by the regulations promulgated by the city manager or designee(s).
 2. Diversion, theft, loss, or any criminal activity involving the commercial cannabis business or any agent or employee of the commercial cannabis business.
 3. The loss or unauthorized alteration of records related to cannabis, registering qualifying patients, primary caregivers, or employees or agents of the commercial cannabis business.
 4. Any other breach of security. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019; Ord. 17-08 § 2, 2017)

5.56.260 Restriction on alcohol sales.

No person shall cause or permit the sale, dispensing, or consumption of alcoholic beverages on or about the premises of the commercial cannabis business. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019; Ord. 17-08 § 2, 2017)

5.56.270 Fees and charges.

A. No person may commence or continue any commercial cannabis activity in the city, without timely paying in full all fees and charges required for the operation of a commercial cannabis activity. Fees and charges associated with the operation of a commercial cannabis activity shall be established by resolution of the city council which may be amended from time to time.

B. All commercial cannabis businesses authorized to operate under this chapter shall pay all sales, use, business and other applicable taxes, and all licenses, registration, and other fees required under federal, state and local law. Each commercial cannabis business shall cooperate with the city with respect to any reasonable request to audit the commercial cannabis business's books and records for the purpose of verifying compliance with this section, including, but not limited to, a verification of the amount of taxes required to be paid during any period. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019; Ord. 17-08 § 2, 2017)

5.56.280 Miscellaneous operating requirements.

A. Commercial cannabis businesses may operate only during the hours specified in the commercial cannabis business permit issued by the city.

B. Restriction on Consumption. Cannabis shall not be consumed on the premises of any commercial cannabis businesses or elsewhere in the city of Hanford other than within private residences.

C. No cannabis or cannabis products or graphics depicting cannabis or cannabis products shall be visible from the exterior of any property issued a commercial cannabis business permit, or on any of the vehicles owned or used as part of the commercial cannabis business. No outdoor storage of cannabis or cannabis products is permitted at any time.

D. Reporting and Tracking of Product and of Gross Sales. Each commercial cannabis business shall have in place a point-of-sale or management inventory tracking system to track and report on all aspects of the commercial cannabis business including, but not limited to, such matters as cannabis tracking, inventory data, gross sales (by weight and by sale) and other information which may be deemed necessary by the city. The commercial cannabis business shall ensure that such information is compatible with the city's recordkeeping systems. In addition, the system must have the capability to produce historical transactional data for review. Furthermore, any system selected must be approved and authorized by the city manager or designee(s) prior to being used by the permittee.

E. All cannabis and cannabis products sold, distributed or manufactured shall be cultivated, manufactured, and transported by licensed facilities that maintain operations in full conformance with the state and local regulations.

F. There shall not be a physician located in or around any commercial cannabis business at any time for the purpose of evaluating patients for the issuance of a cannabis recommendation or card where applicable.

G. Emergency Contact. Each commercial cannabis business shall provide the city manager or designee(s) with the name, telephone number (both land line and mobile, if available) of an on-site employee or owner to whom emergency notice can be provided at any hour of the day.

H. Signage and Notices.

1. In addition to the requirements otherwise set forth in this section, business identification signage for a commercial cannabis business shall conform to the requirements of the Hanford Municipal Code, including, but not limited to, seeking the issuance of a city sign permit.

2. No signs placed on the premises of a commercial cannabis business shall obstruct any entrance or exit to the building or any window.

3. Each entrance to a commercial cannabis business shall be visibly posted with a clear and legible notice indicating that smoking, ingesting, or otherwise consuming cannabis on the premises or in the areas adjacent to the commercial cannabis business is prohibited.

4. Business identification signage shall be limited to that needed for identification only, and shall not contain any logos or information that identifies, advertises, or lists the services or the products offered. No commercial cannabis business shall advertise by having a person holding a sign and advertising the business to passersby, whether such person is on the premises of the commercial cannabis business or elsewhere including, but not limited to, the public right-of-way.

5. Signage shall not be directly illuminated, internally or externally. No banners, flags, billboards or other prohibited signs may be used at any time.

6. Holders of commercial cannabis business permits agree that, as an express and ongoing condition of permit issuance and subsequent renewal, the holder of the permit shall be prohibited from advertising any commercial cannabis business located in the city of Hanford utilizing a billboard (fixed or mobile), bus shelter, placard, aircraft, or other similar forms of advertising, anywhere in the state. This paragraph is not intended to place limitations on the ability of a commercial cannabis business to advertise in other legally authorized forms, including on the internet, in magazines, or in other similar ways.

I. Minors.

1. Persons under the age of twenty-one (21) years shall not be allowed on the premises of a commercial cannabis business and shall not be allowed to serve as a driver for a mobile delivery service. It is unlawful and a violation of this chapter for any person to employ any person at a commercial cannabis business who is not at least twenty-one (21) years of age.

2. Notwithstanding subsection (I)(1) of this section, persons aged eighteen (18) to twenty (20) years shall be allowed on the premises of a commercial cannabis business if they can produce a physician's recommendation. In that event, such persons can lawfully purchase cannabis for the sole purpose of addressing the medical need that is the subject of the physician's recommendation.

3. The entrance to the commercial cannabis business shall be clearly and legibly posted with a notice that no person under the age of twenty-one (21) years of age is permitted to enter upon the premises of the commercial cannabis business.

J. Odor Control. Odor control devices and techniques shall be incorporated in all commercial cannabis businesses to ensure that odors from cannabis are not detectable off-site. Commercial cannabis businesses shall provide a sufficient odor absorbing ventilation and exhaust system so that odor generated inside the commercial cannabis business that is distinctive to its operation is not detected outside of the facility, anywhere on adjacent property or public rights-of-way, on or about the

exterior or interior common area walkways, hallways, breezeways, foyers, lobby areas, or any other areas available for use by common tenants or the visiting public, or within any other unit located inside the same building as the commercial cannabis business. As such, commercial cannabis businesses must install and maintain the following equipment, or any other equipment which the city manager or designee(s) determine is a more effective method or technology:

1. An exhaust air filtration system with odor control that prevents internal odors from being emitted externally;
2. An air system that creates negative air pressure between the commercial cannabis business's interior and exterior, so that the odors generated inside the commercial cannabis business are not detectable on the outside of the commercial cannabis business.

K. Display of Permit and City Business License. The original copy of the commercial cannabis business permit issued by the city pursuant to this chapter and the city issued business license shall be posted inside the commercial cannabis business in a location readily-visible to the public.

L. Background Check. Pursuant to California Penal Code Sections 11105(b)(11) and 13300(b)(11), which authorizes city authorities to access state and local summary criminal history information for employment, licensing, or certification purposes; and authorizes access to federal level criminal history information by transmitting fingerprint images and related information to the Department of Justice to be transmitted to the Federal Bureau of Investigation, every person listed as an owner, manager, supervisor, employee or volunteer, of the commercial cannabis business must submit fingerprints and other information deemed necessary by the chief of police or designee(s) for a background check by the Hanford police department. Pursuant to California Penal Code Sections 11105(b)(11) and 13300(b)(11), which requires that there be a requirement or exclusion from employment, licensing or certification based on specific criminal conduct on the part of the subject of the record. No person shall be issued a permit to operate a commercial cannabis business or a related work permit unless they have first cleared the background check, as determined by the chief of police or designee(s), as required by this section. A fee for the cost of the background investigation, which shall be the actual cost to the city of Hanford to conduct the background investigation as it deems necessary and appropriate, shall be paid at the time the application for a commercial cannabis business permit is submitted.

M. Loitering. The owner and/or operator of a commercial cannabis business shall prohibit loitering by persons outside the facility both on the premises and within fifty (50) feet of the premises.

N. Permits and Other Approvals. Prior to the establishment of any commercial cannabis business or the operation of any such business, the person intending to establish a commercial cannabis business must first obtain all applicable planning, zoning, building, and other applicable permits from the relevant governmental agency which may be applicable to the zoning district in which such commercial cannabis business intends to establish and to operate.

O. If a commercial cannabis business permittee is operating as a collective or cooperative under Health and Safety Code Section 11362.775, subdivision (a), members of the applicant authorized to possess cannabis shall sign an agreement with the commercial cannabis business which states that members shall not distribute cannabis or cannabis products to non-members or in violation of the "Memorandum for all United States Attorneys," issued by the United States Department of Justice, from

James M. Cole, Deputy Attorney General and any other applicable state and federal laws, regulations, or guidelines.

P. If the commercial cannabis business permittee is operating as a collective or cooperative under Health and Safety Code Section 11362.775, subdivision (a), the commercial cannabis business shall terminate the membership of any member violating any of the provisions of this chapter. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019; Ord. 17-08 § 2, 2017)

5.56.300 Operational requirements.

The city manager or designee(s) may develop other commercial cannabis business operational requirements or regulations as are determined to be necessary to protect the public health, safety and welfare. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019; Ord. 17-08 § 2, 2017)

5.56.310 Operating requirements for dispensaries/storefront retail facilities.

A. No more than the number of cannabis retailers adopted by resolution may operate within the city of Hanford at any one time and shall be issued a permit by the city of Hanford.

B. Retailers shall verify the age and all necessary documentation of each individual to ensure the customer is not under the age of eighteen (18) years. If the potential customer is eighteen (18) to twenty (20) years old, retailer shall confirm the customer's possession of a valid doctor's recommendation and/or identification card (Medical Cannabis Card) pursuant to Health & Safety Code Section 11362.71. For adult-use purchases, retailers shall verify that all customers are twenty-one (21) years of age or older for the purchase of cannabis or cannabis products.

C. Entrances into the retailer shall be strictly controlled in a manner approved by the chief of police or designee(s). Individuals eighteen (18) – twenty-one (21) years of age must show their physician's recommendation to gain access. Physician's recommendations are not to be obtained or provided at the retail location.

D. Uniformed licensed security personnel shall be employed to monitor site activity, control loitering and site access, and to serve as a visual deterrent to unlawful activities. Security personnel may be allowed to carry firearms if authorized by the chief of police.

E. Retailers may have only that quantity of cannabis and cannabis products to meet the daily demand readily available for sale on-site in the retail sales area of the retailer. Additional product may be stored in a secured, locked area to which customers, vendors, and visitors shall not have access.

F. All restroom facilities shall remain locked and under the control of management.

G. Retailers and microbusinesses authorized to conduct retail activities shall only serve customers who are within the licensed premises, or at a delivery address that meets the requirements of this chapter.

1. All cannabis goods sold by a retail business shall be contained in child-resistant packaging.

2. Retailers shall record point-of-sale areas and areas where cannabis goods are displayed for sale on the video surveillance system. At each point-of-sale location, camera placement must allow for the

recording of the facial features of any person purchasing or selling cannabis goods, or any person in the retail area, with sufficient clarity to determine identity.

3. A retail licensee or microbusiness licensee who is engaged in retail sale shall hire or contract for security personnel who are at least twenty-one (21) years of age to provide security services for the licensed retail premises. All security personnel hired or contracted for by the licensee shall be licensed by the Bureau of Security and Investigative Services and shall comply with Chapters 11.4 and 11.5 of Division 3 of the Business and Professions Code.

H. Access to Retailer Premises.

1. Access to the premises of a retail licensee/permittee shall be limited to individuals who are at least twenty-one (21) years of age.

2. Notwithstanding subsection (H)(1) of this section, individuals who are at least eighteen (18) years of age and in possession of a valid physician's recommendation shall be granted access to the premises of a retail licensee/permittee for the sole purpose of purchasing medicinal cannabis consistent with the physician's recommendation.

I. Authorized Sales. A retailer shall only sell adult-use cannabis and adult-use cannabis products to individuals who are at least twenty-one (21) years of age. A retailer shall only sell medicinal cannabis or medicinal cannabis products to individuals who are at least eighteen (18) years of age, but not yet twenty-one (21), if those individuals are in possession of a valid physician's recommendation. Medicinal cannabis sales to individuals twenty-one (21) years of age and older are unrestricted.

J. Limited Access Areas. A retailer shall establish limited-access areas and permit only authorized individuals to enter the limited-access areas. Authorized individuals include individuals employed by the retailer as well as any outside vendors, contractors, or other individuals conducting business that requires access to the limited access area. All individuals granted access to the limited access area shall be at least twenty-one (21) years of age, and if not employed by the retailer, shall be escorted at all times by an employee of the licensee/permittee. A retailer shall maintain a log of all individuals who are not employees who are granted access to the limited access area. These logs shall be made available to the city manager or designee(s) upon request.

K. Microbusiness—Commercial Activity. All cultivation, manufacturing, distribution, and retail activities performed by a licensee under a Type 12-Microbusiness permit shall occur on the same licensed premises. Areas of the premises for manufacturing and cultivation shall be separated from the distribution and retail areas by a wall and all doors between the areas shall remain closed when not in use.

L. Operating hours of the store front retailer license shall be limited to the hours of nine a.m. through nine p.m., seven (7) days a week.

M. Store Front Retail Security Requirements. All provisions incorporated within Section 5.56.250 of this Chapter (Security Measures), are directly applicable to and binding on all commercial cannabis businesses, including all store front retail businesses. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019; Ord. 17-08 § 2, 2017)

~~5.56.320 Operating requirements for delivery services.~~

~~— Prior to commencing operations, a cannabis delivery service shall comply with the following requirements:~~

~~— A. Obtain from the city a permit authorizing the delivery of cannabis and cannabis products within the city limits. A copy of this permit shall be retained by all drivers.~~

~~— B. The retail business operating the delivery service shall provide the city manager or designee(s) with evidence of a valid state license for a commercial cannabis business on whose authorization the delivery service is performing the delivery function.~~

~~— C. The retail business operating the delivery service shall furnish to the city manager or designee(s), directly or via the jurisdiction from which the business has received an operating permit, the names and driver's license numbers of all the business' delivery drivers, and evidence verifying that criminal background checks have been conducted for all the business's drivers.~~

~~— D. The retail business operating the delivery service shall furnish to the city manager or designee(s) the year, make, model, color, license plate number, and numerical Vehicle Identification Number (VIN) for any and all vehicles that will be used to deliver cannabis goods. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019)~~

5.56.330 Operating requirements for non-store-front retail.

A. Non-store front retailer (delivery) license owners and operators are required to verify the age and the necessary documentation of each medical customer to ensure the customer is not under the age of eighteen (18) years, and to verify that the potential customer has a valid doctor's recommendation. Doctor recommendations are not to be obtained or provided at the retail location.

~~— B. All store front retailers, non-store front retailers (delivery) and microbusinesses which conduct deliveries into or within the City of Hanford shall be required to obtain a permit from the city of Hanford in order to conduct retail sales regardless if they are located in the city or another local jurisdiction.~~

~~B.C.~~ Operating hours of the non-store front retailer license shall be limited to the hours of nine a.m. through nine p.m., seven (7) days a week.

~~D.C.~~ The commercial non-store front retailer shall only sell cannabis or cannabis products to a person twenty-one (21) years of age or older, or a natural person eighteen (18) years of age or older who possesses a physician's recommendation for medical cannabis use only.

~~E.D.~~ Except as otherwise provided herein, the commercial cannabis non-store front retailer may only have on site that quantity of cannabis and cannabis products reasonably anticipated to meet the weekly demand for which they may need to be readily available for sale.

~~F.E.~~ The commercial cannabis non-store front dispensary may store additional product on-site if they meet the following requirements:

1. Product must be secured in a locked vault to which customers, visitors and vendors shall not have access.
2. Must have twenty-four (24) hour security.
3. All product must be entered into the state mandated track and trace system.

4. Excess product storage shall not exceed the amount that would typically be used in a six (6) week period.

5. Separate security plan for the additional product being stored shall be approved by the chief of police or designee. (Ord. 21-06 § 3, 2021; Ord. 20-13 § 4, 2020; Ord. 19-03 § 4, 2019)

5.56.340 Operating requirements for cultivation facilities.

~~—A. Outdoor Cultivation Prohibited. The cultivation of all cannabis must occur indoors. All outdoor cultivation is prohibited.~~

~~AB.~~ In no case, shall cannabis plants be visible from a public or private road, sidewalk, park or any common public viewing area.

~~CB.~~ If a commercial cannabis cultivation is permitted in the city of Hanford then it shall only be allowed to cultivate the square feet of canopy space permitted by state law.

~~DC.~~ Cannabis cultivation shall be conducted in accordance with state and local laws related to land conversion, grading, electricity, water usage, water quality, woodland and riparian habitat protection, agricultural discharges, and similar matters.

~~ED.~~ Pesticides and fertilizers shall be properly labeled and stored to avoid contamination through erosion, leakage or inadvertent damage from pests, rodents or other wildlife.

~~FE.~~ The cultivation of cannabis shall at all times be operated in such a way as to ensure the health, safety, and welfare of the public, the employees working at the commercial cannabis business, visitors to the area, neighboring properties, and the end users of the cannabis being cultivated; to protect the environment from harm to streams, fish, and wildlife; to ensure the security of the cannabis being cultivated; and to safeguard against the diversion of cannabis.

~~GF.~~ All applicants for a cannabis cultivation permit shall submit the following in addition to the information generally otherwise required for a commercial cannabis business:

1. A cultivation and operations plan that meets or exceeds minimum legal standards for water usage, conservation and use; drainage, runoff, and erosion control; watershed and habitat protection; and proper storage of fertilizers, pesticides, and other regulated products to be used on the parcel, and a description of the cultivation activities (indoor, mixed-light) and schedule of activities during each month of growing and harvesting, or explanation of growth cycles and anticipated harvesting schedules for all-season harvesting (indoor, mixed-light).

2. A description of a legal water source, irrigation plan, and projected water use.

3. Identification of the source of electrical power and plan for compliance with applicable building codes and related codes.

4. Plan for addressing odor and other public nuisances which may derive from the cultivation site. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019; Ord. 17-08 § 2, 2017)

5.56.350 Cannabis manufacturing—Edibles and other cannabis products—Sale or distribution of edible and other cannabis products.

The manufacturing of food or other products infused with or which otherwise contain cannabis may be manufactured within the appropriate manufacturing zoning districts as described in Title 17, subject to the regulations set forth in this chapter, and subject to whatever additional regulations may be promulgated hereunder by an ordinance or resolution of the city council. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019; Ord. 17-08 § 2, 2017)

5.56.360 Packaging and labeling.

A. Before a commercial cannabis manufacturer delivers any edible cannabis or edible cannabis product to a dispensary, the same shall be labeled and placed in tamper-evident packaging which at least meets the requirements of California Business and Professions Code Section 19347, as the same may be amended from time to time or superseded or replaced by subsequent state legislation or by any department or division of the state of California.

B. All items to be sold or distributed shall be individually wrapped at the original point of preparation by the business permitted as a commercial cannabis manufacturer.

C. Labeling must include a warning if nuts or other known allergens are used, and must include the total weight (in ounces or grams) of cannabis in the package.

D. A warning that the item is a medication and not a food must be clearly legible on the front of the package and/or must comply with state packing requirements.

E. The package must have a label warning that the product is to be kept away from children.

F. The label must also state that the product contains cannabis and must specify the date of manufacture.

G. Any edible cannabis product that is made to resemble a typical food product must be in a properly labeled opaque (non-see-through) package before it leaves the commercial cannabis manufacturing business.

H. Deliveries must be in a properly labeled opaque package when delivered.

I. The city council may impose additional packaging and labeling requirements on cannabis or cannabis products by resolution, as permitted by law. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019; Ord. 17-08 § 2, 2017)

5.56.370 Operating requirements for cannabis manufacturing (levels one and two)—Extraction, etc.

A. Cannabis manufacturing facilities requiring a Type 6 or Type 7 state license (using non-volatile and volatile solvents) as defined in Business and Professions Code Section 19341, may be permitted to operate within those zone districts as defined in Title 17 of the Hanford Municipal Code.

B. Any compressed gases used in the manufacturing process shall not be stored on any property within the city of Hanford in containers that exceeds the amount which is approved by the fire department and authorized by the regulatory permit. Each site or parcel subject to a commercial cannabis business permit shall be limited to a total number of tanks as authorized by the fire department on the property at any time.

C. Cannabis manufacturing facilities may use the hydrocarbons N-butane, isobutane, propane, or heptane or other solvents or gases exhibiting low to minimal potential human-related toxicity approved by the community development department. These solvents must be of at least ninety-nine percent (99%) purity and any extraction process must use them in a professional grade closed loop extraction system designed to recover the solvents, work an environment with proper ventilation, controlling all sources of ignition where a flammable atmosphere is or may be present.

D. If an extraction process uses a professional grade closed loop carbon dioxide (CO₂) gas extraction system where every vessel is certified by the manufacturer for its safe use as referenced in subsection F of this section. The CO₂ must be of at least ninety-nine percent (99%) purity.

E. Closed loop systems for compressed gas extraction systems must be commercially manufactured and bear a permanently affixed and visible serial number.

F. Certification from an engineer licensed by the state of California must be provided to the community development department for a professional grade closed loop system used by any commercial cannabis manufacturer to certify that the system was commercially manufactured, is safe for its intended use, and was built to codes of recognized and generally accepted good engineering practices, including, but not limited to:

1. The American Society of Mechanical Engineers (ASME);
2. American National Standards Institute (ANSI);
3. Underwriters Laboratories (UL); or
4. The American Society for Testing and Materials (ASTM).

G. The certification document must contain the signature and stamp of the professional engineer and serial number of the extraction unit being certified.

H. Professional closed loop systems, other equipment used, the extraction operation, and facilities must be approved for their use by the fire department and meet any required fire, safety, and building code requirements specified in the California Building Reference Codes.

I. Cannabis manufacturing facilities may use heat, screens, presses, steam distillation, ice water, and other methods without employing solvents or gases to create keef, hashish, bubble hash, or infused dairy butter, or oils or fats derived from natural sources, and other extracts.

J. Cannabis manufacturing facilities may use food grade glycerin, ethanol, and propylene glycol solvents to create or refine extracts. All ethanol must be removed from the extract in a manner to recapture the solvent and ensure that it is not vented into the atmosphere.

K. Cannabis manufacturing facilities creating cannabis extracts must develop standard operating procedures, good manufacturing practices, and a training plan prior to producing extracts for the marketplace.

L. Any person using solvents or gases in a closed loop system to create cannabis extracts must be fully trained on how to use the system, have direct access to applicable material safety data sheets and handle and store the solvents and gases safely.

M. Parts per million for one gram of finished extract cannot exceed state standards for any residual solvent or gas when quality assurance tested. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019; Ord. 17-08 § 2, 2017)

5.56.372 Operating requirements for distributors.

A. A distributor shall not store non-cannabis goods or non-cannabis accessories that are to be sold to another party on any licensed premises. Additionally, a distributor shall not distribute non-cannabis goods or non-cannabis accessories at a licensed premise. For the purposes of this section, non-cannabis goods are any goods that do not meet the definition of cannabis goods as defined in Title 16, Section 5000(c) of the California Code of Regulations.

B. After taking physical possession of a cannabis goods batch, the distributor shall contact a testing laboratory and arrange for a laboratory employee to come to the distributor's licensed premises to select a representative sample for laboratory testing.

C. A distributor shall ensure that all cannabis goods batches are stored separately and distinctly from other cannabis goods batches on the distributor's premises.

D. The distributor shall ensure that the batch size from which the sample is taken meets the requirements of state law, specifically the testing provisions within the California Code of Regulations.

E. A distributor or an employee of the distributor shall be physically present to observe the laboratory employee obtain the sample of cannabis goods for testing and shall ensure that the increments are taken from throughout the batch. The sampling shall be video-recorded, and the recording kept available to state and local authorities for a minimum of one hundred eighty (180) days, pursuant to Section Title 16, 5305 of the California Code of Regulations.

F. A distributor shall not transport cannabis or cannabis products to a licensed retail facility until and unless it has verified that the cannabis or cannabis products have been tested and certified by a testing lab as being in compliance with state health and safety requirements pursuant to Title 16, Sections 5705, 5710 and 5714 of the California Code of Regulations. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019)

5.56.374 Operating requirements for testing laboratories.

A. Testing labs shall be required to conduct all testing in a manner pursuant to Business and Professions Code Section 26100 and shall be subject to state and local law. Each testing lab shall be subject to additional regulations as determined from time to time as more regulations are developed under this chapter and any subsequent state of California legislation regarding the same.

B. Testing labs shall conduct all testing in a manner consistent with general requirements for the competence of testing and calibrations activities, including sampling using verified methods.

C. All cannabis testing laboratories performing testing shall obtain and maintain ISO/IEC 17025 accreditation as required by the ~~Bureau of Cannabis Control~~ Department of Cannabis Control.

D. Testing labs shall destroy any harvest batch whose testing sample indicates noncompliance with health and safety standards required by the ~~Bureau~~ Department unless remedial measures can

bring the cannabis or cannabis products into compliance with quality standards as specified by law and implemented by the ~~bureau~~ Department.

E. Each operator shall ensure that a testing laboratory employee takes the sample of cannabis or cannabis products from the distributor's premises for testing required by state law and that the testing laboratory employee transports the sample to the testing laboratory.

F. Except as provided by state law, a testing laboratory shall not acquire or receive cannabis or cannabis products except from a licensee in accordance with state law, and shall not distribute, sell, or dispense cannabis, or cannabis products, from the licensed premises from which the cannabis or cannabis products were acquired or received. All transfer or transportation shall be performed pursuant to a specified chain of custody protocol as established in approved security measures by the chief of police.

G. A testing laboratory may receive and test samples of cannabis or cannabis products from a qualified patient or primary caregiver only if the qualified patient or primary caregiver presents the qualified patient's valid physician's recommendation for cannabis for medicinal purpose. A testing lab shall not certify samples from a qualified patient or primary caregiver for resale or transfer to another party or licensee. All tests performed by a testing laboratory for a qualified patient or primary caregiver shall be recorded with the name of the qualified patient or primary caregiver and the amount of the cannabis or cannabis products received. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019)

5.56.376 Operating requirements for microbusinesses.

Microbusinesses must comply with the local operating requirements and all requirements imposed by state law that apply to the specific activities operating under the umbrella of the individual microbusiness.

~~—A. Outdoor commercial cultivation is prohibited.~~

~~A.B.~~ In no case, shall cannabis plants be visible from a public or private road, sidewalk, park or any common public viewing area.

~~C.B.~~ Commercial cannabis cultivation which is permitted in the city of Hanford shall not exceed ten thousand (10,000) square feet of canopy space permitted by state law as part of a microbusiness license.

~~D.C.~~ Cannabis cultivation shall be conducted in accordance with state and local laws related to land conversion, grading, electricity, water usage, water quality, woodland and riparian habitat protection, agricultural discharges, and similar matters.

~~E.D.~~ Pesticides and fertilizers shall be properly labeled and stored to avoid contamination through erosion, leakage or inadvertent damage from pests, rodents or other wildlife.

~~F.E.~~ The cultivation of cannabis shall at all times be operated in such a way as to ensure the health, safety, and welfare of the public, the employees working at the commercial cannabis business, visitors to the area, neighboring properties, and the end users of the cannabis being cultivated; to protect the environment from harm to streams, fish, and wildlife; to ensure the security of the cannabis being cultivated; and to safeguard against the diversion of cannabis.

~~GE.~~ All applicants for a cannabis cultivation permit shall submit to the following in addition to the information generally otherwise required for a commercial cannabis business:

1. A cultivation and operations plan that meets or exceeds minimum legal standards for water usage, conservation and use; drainage, runoff, and erosion control; watershed and habitat protection; and proper storage of fertilizers, pesticides, and other regulated products to be used on the parcel, and a description of the cultivation activities and schedule of activities during each month of growing and harvesting, or explanation of growth cycles and anticipated harvesting schedules for all-season harvesting.
2. A description of a legal water source, irrigation plan, and projected water use.
3. Identification of the source of electrical power and plan for compliance with applicable building codes and related codes.
4. Plan for addressing odor and other public nuisances that may derive from the cultivation site.
(Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019)

5.56.380 Promulgation of regulations, standards and other legal duties.

- A. In addition to any regulations adopted by the city council, the city manager or designee(s) is authorized to establish any additional rules, regulations and standards governing the issuance, denial or renewal of commercial cannabis business permits, the ongoing operation of commercial cannabis businesses and the city's oversight, or concerning any other subject determined to be necessary to carry out the purposes of this chapter.
- B. Regulations shall be published on the city's website.
- C. Regulations promulgated by the city manager shall become effective upon date of publication. Commercial cannabis businesses shall be required to comply with all state and local laws and regulations, including, but not limited to, any rules, regulations or standards adopted by the city manager or designee(s).
- D. Testing labs, transporters and distribution facilities shall be subject to state law and shall be subject to additional regulations as determined from time to time as more regulations are developed under subsection A of this section. (Ord. 19-03 § 4, 2019; Ord. 17-08 § 2, 2017)

5.56.390 Community relations.

- A. Each commercial cannabis business shall provide the name, telephone number, and email address of a community relations contact to whom notice of problems associated with the commercial cannabis business can be provided. Each commercial cannabis business shall also provide the above information to all businesses and residences located within one hundred (100) feet of the commercial cannabis business.
- B. During the first year of operation pursuant to this chapter, the owner, manager, and community relations representative from each commercial cannabis business holding a permit issued pursuant to this chapter shall attend a quarterly meeting with the city manager or designee(s) and other interested parties as deemed appropriate by the city manager, to discuss costs, benefits, and other community issues arising as a result of implementation of this chapter. After the first year of operation,

the owner, manager, and community relations representative from each such commercial cannabis business shall meet with the city manager or designee(s) when and as requested by the city manager or designee(s).

C. Commercial cannabis businesses to which a permit is issued pursuant to this chapter shall develop and make available to youth organizations and educational institutions a public education plan that outlines the risks of youth addiction to cannabis, and that identifies resources available to youth related to drugs and drug addiction. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019; Ord. 17-08 § 2, 2017)

5.56.400 Fees deemed debt to city of Hanford.

The amount of any fee, cost or charge imposed pursuant to this chapter shall be deemed a debt to the city of Hanford that is recoverable via an authorized administrative process as set forth in the municipal code, or in any court of competent jurisdiction. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019; Ord. 17-08 § 2, 2017)

5.56.410 Permit holder responsible for violations.

The person to whom a permit is issued pursuant to this chapter shall be responsible for all violations of the laws of the state of California or of the regulations and/or the ordinances of the city of Hanford, whether committed by the permittee or any employee or agent of the permittee, which violations occur in or about the premises of the commercial cannabis business whether or not said violations occur within the permit holder's presence. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019; Ord. 17-08 § 2, 2017)

5.56.420 Inspection and enforcement.

A. Representatives of the city, charged with enforcing the provisions of the Hanford Municipal Code, or any provision thereof, may enter the location of a commercial cannabis business at any time, without notice, and inspect the location of any commercial cannabis business as well as any recordings and records required to be maintained pursuant to this chapter or under applicable provisions of state law.

B. It is unlawful for any person having responsibility over the operation of a commercial cannabis business, to impede, obstruct, interfere with, or otherwise not to allow, the city to conduct an inspection, review or copy records, recordings or other documents required to be maintained by a commercial cannabis business under this chapter or under state or local law. It is also unlawful for a person to conceal, destroy, deface, damage, or falsify any records, recordings or other documents required to be maintained by a commercial cannabis business under this chapter or under state or local law.

C. Representatives of the city, charged with enforcing the provisions of this chapter may enter the location of a commercial cannabis business at any time during the hours of operation and without notice to obtain samples of the cannabis to test for public safety purposes. Any samples obtained by the city of Hanford shall be logged, recorded, and maintained in accordance with the Hanford Police department standards for evidence. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019; Ord. 17-08 § 2, 2017)

5.56.430 Concurrent regulation with state.

It is the stated intent of this chapter to regulate commercial cannabis activity in the city of Hanford concurrently with the state of California. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019; Ord. 17-08 § 2, 2017)

5.56.440 Violations declared a public nuisance.

Each and every violation of the provisions of this chapter is hereby deemed unlawful and a public nuisance per se. The nuisance abatement remedies and procedures identified in Chapter 17.94 of this code, which are incorporated herein by reference, shall apply to nuisances existing under this chapter. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019; Ord. 17-08 § 2, 2017)

5.56.450 Each violation a separate offense.

Each and every violation of this chapter shall constitute a separate violation and shall be subject to all remedies and enforcement measures authorized by the Hanford Municipal Code or by state law. Each day a violation is committed or permitted to continue shall constitute a separate violation. Additionally, as a nuisance per se, any violation of this chapter shall be subject to injunctive relief, any permit issued pursuant to this chapter being deemed null and void, disgorgement and payment to the city of any monies unlawfully obtained, costs of abatement, costs of investigation, attorney fees, and any other relief or remedy available at law or in equity. The city of Hanford may also pursue any and all remedies and actions available and applicable under state and local laws for any violations committed by the commercial cannabis business or persons related to, or associated with, the commercial cannabis activity. Additionally, when there is determined to be an imminent threat to public health, safety or welfare, the city manager or designee(s) may take immediate action to temporarily suspend or revoke a commercial cannabis business permit issued by the city, pending a hearing before the city council or its designee. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019; Ord. 17-08 § 2, 2017)

5.56.460 Criminal penalties.

Each and every violation of the provisions of this chapter may be prosecuted as a misdemeanor and upon conviction be subject to a fine not to exceed one thousand dollars (\$1,000.00) or imprisonment in the County Jail for a period of not more than twelve (12) months, or by both such fine and imprisonment. Each day a violation is committed or permitted to continue shall constitute a separate offense. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019; Ord. 17-08 § 2, 2017)

5.56.470 Administrative penalties and costs.

In addition to any other remedy available at law, an administrative citation may be issued to any person or entity that violates this chapter.

A. Issuance of Citation.

1. Whenever the city's police chief, designee, or a city code enforcement officer determines that a violation of this chapter has occurred, the police chief, designee, or a code enforcement officer shall have the authority to issue an administrative citation to any person or entity responsible for the violation.

2. Each administrative citation shall contain the following information:

a. The date of the violation or, if the date of the violation is unknown, then the date the violation is identified;

b. The address or a definite description of the location where the violation occurred;

c. The section of this chapter that was violated and a description of the violation;

d. The amount of the fine for the violation;

e. A description of the fine payment process, including a description of the time within which and the place at which the fine shall be paid;

f. An order prohibiting the continuation or repeated occurrence of the code violation described in the administrative citation;

g. A description of the administrative citation review process, including the time within which the administrative citation may be contested and the place from which a request for hearing form to contest the administrative citation may be obtained; and

h. The name and signature of the individual issuing the citation.

B. Amount of Fines.

1. The amounts of the administrative citation fines for violations of this chapter shall be set forth in a schedule of fines established by resolution of the city council.

2. The schedule of fines shall specify any increased fines for repeat violations of the same code provision by the same person or entity.

C. Payment of Fines.

1. Fines shall be paid to the city within thirty (30) days from the date of the administrative citation.

2. Any administrative citation fine paid shall be refunded if it is determined, after an appeal hearing, that a person or entity charged in the administrative citation was not responsible for the violation or that there was no violation as charged in the citation.

3. Payment of a fine under this chapter shall not excuse, discharge, or permit any continuation or repeated occurrence of the code violation that is the subject of the administrative citation.

D. Hearing Request.

1. Any recipient of an administrative citation may appeal the citation by submitting a written request for hearing to the city clerk or designee within thirty (30) days from the date of the administrative citation, together with an advance deposit of the fine and appeal fee.

2. If the police chief, designee, or a code enforcement officer submits an additional written report concerning the administrative citation to the hearing body, then a copy of such report shall be served on the person requesting the hearing at least five (5) days prior to the date of the hearing.

E. Hearing Procedure.

1. The appeal procedures described in Section 5.56.160 of this chapter shall apply to appeals involving administrative citations.

2. No hearing to contest an administrative citation shall be held unless the fine has been deposited with the city in advance.

3. At the hearing, the party contesting the administrative citation shall be given the opportunity to testify and to present evidence concerning the administrative citation.

4. The administrative citation and any additional report submitted by the police chief, designee, or a code enforcement officer shall constitute prima facie evidence of the respective facts contained in those documents.

5. The hearing body may continue the hearing and request additional information from the police chief, designee, code enforcement officer, or the recipient of the administrative citation prior to issuing a written decision.

F. Hearing Body's Decision.

1. After considering all of the testimony and evidence submitted at the hearing, the hearing body shall issue a written decision to uphold, modify, or cancel the administrative citation and shall list in the decision the reasons for the decision. The decision of the hearing body shall be final.

2. If the hearing body determines that the administrative citation should be upheld, then the fine amount on deposit with the city shall be retained by the city.

3. If the hearing body determines that the administrative citation should be canceled, then the city shall promptly refund the amount of the deposited fine.

4. If the hearing body determines that the fine levied under the administrative citation should be adjusted, then the city will promptly refund the amount of the deposited fine that exceeds the amount fixed by the hearing body or the recipient of the administrative citation will promptly pay to the city an additional amount fixed by the hearing body if the body finds that the fine assessed under the administrative citation to be insufficient.

5. The recipient of the administrative citation shall be served with a copy of the hearing body's written decision.

G. Late Payment Charges. Any person or entity who fails to pay to the city any fine imposed or amount owed pursuant to the provisions of this chapter on or before the date that the fine or amount is due shall also be liable for a late payment charge equal to ten percent (10%) of the unpaid amount, and interest shall accrue thereafter at a rate of one and one half percent (1.5%) per month on the unpaid fine; provided however, the additional penalty and/or interest shall not apply if collection of the same by the city would violate state law.

H. Recovery of Administrative Citation Fines and Costs. Any person or entity that violates this chapter shall be responsible for the enforcement costs incurred by the city with respect to such violation. The city may collect any past due administrative citation fines, enforcement and collection costs, and late payment charges by use of all available legal means. Collection costs shall be in addition to any interest and/or late charges imposed upon the delinquent obligation and shall be added to and

become a part of the underlying obligation. Any partial payment of an obligation, when a partial payment is permitted, will be applied first to the principal amount of the underlying obligation, then to any penalties, and then to interest.

I. Recovery of Administrative Citation Fines and Costs. Any person or entity that violates this chapter shall be responsible for the enforcement costs incurred by the city with respect to such violation. The city may collect any past due administrative citation fines, enforcement and collection costs, and late payment charges by use of all available legal means, including, without limitation, the lien procedures identified in Sections 17.94.180 and 17.94.190 of this code, which are incorporated herein by reference. Collection costs shall be in addition to any interest and/or late charges imposed upon the delinquent obligation and shall be added to and become a part of the underlying obligation. Any partial payment of an obligation, when a partial payment is permitted, will be applied first to the principal amount of the underlying obligation, then to any penalties, and then to interest.

J. Right to Judicial Review. Any person or entity aggrieved by a decision of the hearing body on an administrative citation may obtain review of the decision by filing a petition for review with the Superior Court for Kings County, California in accordance with the timelines and provisions set forth in California Government Code Section 53069.4, as may be amended.

K. Notices. The administrative citation and all notices required to be given by this chapter shall be served by personal delivery thereof to the person or entity to be notified or by deposit in the United States mail, certified mail with return receipt requested, addressed to such person to be notified at his or her last-known address as the same appears in the public records or other records pertaining to the matter to which such notice is directed. Service by mail shall be deemed to have been completed at the time of deposit in the mail. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019)

5.56.480 Remedies cumulative and not exclusive.

The remedies provided herein are not to be construed as exclusive remedies. The city is authorized to pursue any proceedings or remedies provided by law. (Ord. 21-06 § 3, 2021; Ord. 19-03 § 4, 2019; Ord. 17-08 § 2, 2017)

8.32 - Cannabis

8.32.010 Findings.

The city council of Hanford finds and declares as follows:

A. In 1996, the voters of the state of California approved Proposition 215, codified as California Health and Safety Code Section 11362.5, "Compassionate Use Act of 1996." The intent of Proposition 215 was to allow persons who are in need of cannabis for medical purposes, under limited and specified circumstances, to obtain and use it without fear of criminal prosecution.

B. In 2004, Senate Bill 420 was enacted, codified as California Health and Safety Code Section 11362.7 et seq. ("Medical Marijuana Program Act"), to clarify the scope of California Health and Safety Code Section 11362.5 which allowed cities and counties to adopt supplemental rules and regulations.

C. In 2011, Assembly Bill 2650 was enacted, codified as California Health and Safety Code Section 11362.768. This law affirms that city governments may restrict the location and establishment of a medical cannabis collective or dispensary through local ordinances.

D. On October 9, 2015, almost twenty (20) years after passage of the Compassionate Use Act, the Governor signed the Medical Marijuana Regulation and Safety Act ("Act"), comprised of California legislative bills AB 243, AB 266, and SB 643. The Act creates a comprehensive state licensing system for the commercial cultivation, manufacture, retail sale, transport, distribution, delivery, and testing of medical cannabis, all subject to local control. One of the purposes of the Act is to ensure uniformity among jurisdictions that wished to allow commercial cannabis operations.

E. In 2014 and as amended in 2015, the city adopted Chapter 8.32 of the Hanford Municipal Code pertaining to medical cannabis. The existing medical cannabis ordinance places a complete ban on cannabis cultivation, processing, deliveries, and dispensaries in the city based upon various health, safety and welfare and land use findings relating to cannabis cultivation, dispensing, and consumption, which findings are incorporated herein by reference.

F. Pending before the voters in November 2016 is the Adult Use of Marijuana Act ("AUMA"). The purpose of AUMA is to establish a comprehensive system to legalize, control and regulate the cultivation, processing, manufacture, distribution, testing, and sale of nonmedical cannabis, including cannabis products. Adults, age twenty-one (21) and older, will be allowed to possess cannabis and grow certain amounts at home for personal use if AUMA is approved by the voters.

G. The city of Hanford has identified a number of health, safety, and welfare concerns associated with cannabis activities. These concerns are set forth in the findings sections as previously reported in the medical cannabis ordinance. These concerns continue and have been exemplified throughout Kings County and the state as evidenced by numerous area agency police reports and news articles and stories.

H. Cannabis collectives or dispensaries operated in Fresno and Kern Counties for several years with minimal local regulation and had been the subject of armed robberies with shots fired, incidents with juveniles and young adults, and closure and arrests of operators for violation of both state and

federal laws, including seizure of illegal firearms. Some of the individuals arrested would be disqualified from operating a cannabis collective or dispensary based on reasonable standards relating to their criminal history backgrounds. Other public agencies have documented violence related to the operation of a cannabis collective or dispensary. A cannabis collective or dispensary results in loitering, increased traffic, noise, and loss of trade for other businesses located nearby. A cannabis collective or dispensary is harmful to the welfare of the surrounding community and its residents and constitutes a public nuisance.

I. Unrestricted cannabis cultivation in the city would pose an urgent and immediate threat to the public peace, health and safety. Other jurisdictions have experienced adverse impacts from outdoor cultivation of medical cannabis, including offensive odors, trespassing and burglary, and acts of violence in connection with the commission of such crimes or the occupants' attempts to prevent such crimes. Cannabis grows emerged in Fresno and Kern Counties, which were very visible by the public, including children and youths. Some of these grows contained boobytrap devices that threatened severe bodily harm or death to those who attempted to access them. During the harvest and processing season, there is an immediate threat of violent crime due to the size, location, and monetary value of these mature cannabis grows.

J. Unrestricted cannabis grows create a nuisance and threaten the safety and property of nearby landowners and their families. The strong odor of cannabis plants, which increases as the plants mature, is offensive to many individuals and creates an attractive nuisance, alerting people to the location of valuable cannabis plants, which creates a risk of crime.

K. Unrestricted indoor cannabis grows create hazards. Equipment utilized for indoor cultivation, including heat lamps, requires large amounts of electricity. Many buildings, including residences, are not equipped for such power needs and modifications to electrical systems to provide the required power are a common cause of fires. The ventilation systems of many structures, including homes, are not equipped for the indoor cultivation of cannabis; ventilation rates are sometimes intentionally reduced to increase carbon dioxide levels, which is conducive to plant growth. Inadequate ventilation, coupled with temperature and humidity levels involved with indoor cannabis cultivation, can result in fungal growth, which could endanger the health of building inhabitants and others, including first responders, who may enter such buildings. Some indoor cultivation operations utilize carbon dioxide-generating equipment that burns fossil fuels, which also creates carbon monoxide and other potentially dangerous substances resulting from the combustion process; carbon monoxide and similar combustion-related byproducts can be deadly to building inhabitants, especially in instances of inadequate ventilation. The use of pesticides and fertilizers by unqualified persons may result in health risks to the inhabitants of buildings in which cannabis cultivation occurs and to the surrounding neighborhood.

L. If cannabis grows are not regulated, large quantities of illegal cannabis could be introduced into the local market in the near term.

M. Cannabis, alone or in combination with food products, may constitute a unique health hazard to the public because, unlike all other ingestibles, cannabis is not presently regulated, inspected, or analyzed for contamination by the state or federal government and could contain harmful chemicals and contaminants from unapproved sources that could endanger the already poor health of ill persons and the good health of others. Children are particularly vulnerable to the effects of cannabis use, and the

presence of cannabis plants has proven to be an attractive nuisance for children, creating an unreasonable hazard in areas frequented by children such as schools, parks, and similar location.

N. Cannabis varies in quality, with significant variations in the concentration of the active ingredient tetrahydrocannabinol (THC). Consumers cannot accurately ascertain the strength of the drug when they buy it. Also, it cannot be assured that customers will be adequately warned that cannabis use impairs the user's fine motor skills and negatively affects the safe operation of motor vehicles. A new trend entails the extraction of THC from cannabis through a process that utilizes volatile chemicals. Fires and explosions have occurred in other jurisdictions as a result of the flammable chemicals utilized in this extraction process.

O. The city has a compelling interest in protecting the public health, safety, and welfare of its residents and businesses, in preserving the peace and quiet of the neighborhoods in which a medical cannabis collective or dispensary could operate and in which cannabis could be cultivated. (Ord. 17-18 § 1, 2017; Ord. 16-11 § 1, 2016; Ord. 14-11 § 1, 2014)

8.32.020 Purpose and intent.

It is the purpose and intent of this chapter to promote the health, safety, morals, and general welfare of the residents and businesses within the city by regulating the cultivation, processing, extraction, manufacturing, testing, distribution, transportation, sale, and consumption of cannabis, whether for medical purposes as currently allowed under state law, or for recreational use should recreational use become lawful under state law. (Ord. 17-18 § 1, 2017; Ord. 16-11 § 1, 2016; Ord. 14-11 § 1, 2014)

8.32.030 Relationship with other laws.

This chapter is not intended to, nor shall it be construed or given effect in a manner that causes it to apply to, any activity that is regulated by federal or state law to the extent that application of this chapter would conflict with such law or would unduly interfere with the achievement of federal or state regulatory purposes. It is the intention of the city council that this chapter be interpreted to be compatible and consistent with federal, state, and city enactments and in furtherance of the public purposes which those enactments express. It is the intention that the provisions of this chapter will supersede any other provisions of this code found to be in conflict. (Ord. 17-18 § 1, 2017; Ord. 16-11 § 1, 2016; Ord. 14-11 § 1, 2014)

8.32.040 Definitions.

For the purposes of this chapter, these words and phrases shall be defined as follows:

"Cannabis" or "marijuana" shall have the meaning set forth in California Business and Professions Code Section 19300.5(f), as may be amended.

"Cannabis dispensary" or "dispensary" means any facility or location, whether fixed or mobile, and any building or structure, where cannabis is made available, sold, offered for sale, given, distributed, traded, or otherwise provided to one or more persons.

“Cannabis products” means cannabis that has undergone a process whereby the plant material has been transformed into a concentrate, including, but not limited to, concentrated cannabis, or an edible or topical product containing cannabis or concentrated cannabis and other ingredients.

“City” shall mean the city of Hanford.

“Collective or cooperative cultivation” means the association within California of qualified patients, persons with valid identification cards, and designated primary care givers to cultivate cannabis for medical purposes as may be allowed under the Compassionate Use Act, the Medical Marijuana Program Act, or the California Medical Marijuana Regulation and Safety Act adopted on October 9, 2015 with legislative bills AB 243, AB 266, and SB 643 (“MMRSA”).

“Commercial cannabis operation” means any commercial cannabis activity as set forth in California Business and Professions Code Section 19300.5(k) and allowed under MMRSA, and the implementing regulations, as MMRSA and the implementing regulations may be amended from time to time, and all uses permitted under any subsequently enacted state law pertaining to the same or similar uses for recreational cannabis.

“Delivery” shall be as defined in the Medical Marijuana Regulation and Safety Act, California Business and Professions Code Section 19300.5(m), as that section may be amended from time to time, and includes the commercial transfer of medical cannabis and medical cannabis products from a dispensary as well as the use of any technology platform that enables qualified patients and caregivers to arrange for or facilitate the transfer.

“Medical cannabis or medical cannabis use” means the use of cannabis for the purposes set forth in the Compassionate Use Act and the Medical Marijuana Program Act, California Health and Safety Code Sections 11362.5 and 11362.7 et seq.

“Recreational cannabis or recreational cannabis use” means all uses of cannabis not included within the definition of medical cannabis use. (Ord. 17-18 § 1, 2017; Ord. 16-11 § 1, 2016; Ord. 14-11 § 1, 2014)

~~8.32.050 Cannabis collectives and dispensaries as prohibited activities and prohibition of cannabis delivery.~~

~~—A. Cannabis collectives and dispensaries are prohibited uses in all zone districts in the city.~~

~~—B. All forms of delivery of cannabis, including, without limitation, delivery by a mobile cannabis dispensary, are prohibited within the city, and mobile cannabis dispensaries are a prohibited use in all zone districts in the city.~~

~~—C. Commercial cannabis growers properly licensed by the city of Hanford and the state of California are exempt from subsection B. (Ord. 17-18 § 1, 2017; Ord. 16-11 § 1, 2016; Ord. 14-11 § 1, 2014)~~

8.32.060 Regulations applicable to the cultivation of cannabis.

To the extent that the city is required to allow the cultivation of cannabis, whether for medical or recreational use, under state law, the rules set forth herein shall apply. Nothing in this section shall be interpreted to permit marijuana dispensaries otherwise prohibited by this chapter.

A. Personal Use Cultivation. The cultivation of cannabis shall be subject to the limits set forth in any applicable state law. An individual that has a right to cultivate cannabis for personal use shall be allowed to cultivate cannabis within his or her private residence, in an attached garage, or in an enclosed accessory building if the property is detached single-family residential. Outdoor cultivation of cannabis is prohibited. Cannabis cultivation for personal use shall be subject to the following requirements:

1. Area. The cannabis cultivation area shall not exceed thirty-two (32) square feet measured by the canopy and not exceed ten (10) feet in height per residence. This limit applies regardless of the number of individuals residing in the residence. The cultivation area shall be a single designated area.

2. Lighting. Cannabis cultivation lighting shall not exceed a total of one thousand two hundred (1,200) watts.

3. Building Code Requirements. Any alterations or additions to a residence, including garages and accessory buildings, for the purpose of cultivating cannabis shall be subject to applicable building and fire codes, including plumbing and electrical, and all applicable zoning codes, including lot coverage, setback, height requirements, and parking requirements.

4. Gas Products. The use of gas products (CO₂, butane, etc.) for cannabis cultivation or processing is prohibited.

5. Evidence of Cultivation. From a public right-of-way, there shall be no exterior evidence of cannabis cultivation occurring on the site.

6. Residence. An individual may cultivate cannabis only at his or her own residence.

7. Cultivation Elsewhere in City. An individual shall not participate in marijuana cultivation in any location within the city other than the individual's residence or a licensed commercial cannabis cultivation operation.

8. Incidental Use. The residence shall maintain kitchen, bathrooms, and primary bedrooms for their intended use and not be used primarily for cannabis cultivation.

9. Ventilation. The cannabis cultivation area shall include a ventilation and filtration system designed to ensure that odors from the cultivation are not detectable beyond the residence, or property line for detached single-family residential, and designed to prevent mold and moisture and otherwise protect the health and safety of persons residing in the residence. This shall include at a minimum, a system meeting the requirements of the current, adopted edition of the California Building Code Section 1203.4 Natural Ventilation or Section 402.3 Mechanical Ventilation (or its equivalent(s)).

10. Storage of Chemicals. Any chemicals used for cannabis cultivation shall be stored outside of the habitable areas of the residence and outside of public view from neighboring properties and public rights-of-way.

11. Nuisance. The cannabis cultivation area shall not: (a) adversely affect the health, safety, or comfort of nearby residents by creating dust, glare, heat, noise, noxious gasses, odor, smoke, traffic, vibration, or other impacts; and (b) be hazardous due to the use or storage of materials, processes, products or wastes, or from other actions related to the cultivation.

12. Property Owner Authorization. For rental property, the lessee shall obtain written authorization from the property owner or property management company to cultivate cannabis.

13. Notification. The owner and any lessee of the residence upon which cultivation will occur shall inform the police department of the intent to cultivate cannabis and pick up a handout setting forth the owner and lessee responsibilities under this section. This notification shall be provided prior to the commencement of the cultivation except that for existing cultivation, the information shall be provided within ten (10) days of the effective date of the ordinance codified in this chapter. The police department may direct the owner and lessee to the city's community development department for more information about building code and permit requirements that may be applicable if alterations or additions to the residence are contemplated. The police department and the community development department shall keep patient information confidential to the extent required by law.

14. Additional Requirements for Garages and Accessory Buildings. The following additional requirements shall apply for personal use cultivation that occurs in a garage or accessory building: the garage or accessory building shall be secure, locked, and fully enclosed, with a ceiling, roof or top, and entirely opaque. The garage or building shall include a burglar alarm monitored by an alarm company or private security company. The garage or building, including all walls, doors, and the roof, shall be constructed with a firewall assembly of green board meeting the minimum building code requirements for residential structures and include material strong enough to prevent entry except through an open door.

15. Collective or cooperative cultivation. The collective or cooperative cultivation of medical or recreational cannabis shall be prohibited in the city. (Ord. 17-18 § 1, 2017; Ord. 16-11 § 1, 2016; Ord. 14-11 § 1, 2014)

~~8.32.070 Cannabis dispensaries and deliveries prohibited.~~

~~— A. Dispensaries. Cannabis dispensaries are prohibited within all zone districts in the city.~~

~~— B. Deliveries. The delivery of cannabis is prohibited in the city regardless of whether the delivery is initiated within or outside of the city, and regardless of whether a technology platform is used for delivery by the dispensary.~~

~~— No person shall deliver any cannabis-infused product, including, without limitation, tinctures and baked and baked goods and other consumable products, to any location within the city from a mobile cannabis dispensary, regardless of where the mobile cannabis dispensary is located, or engage in any operation for this purpose.~~

~~— C. Public Nuisance Declared. Operation of any mobile cannabis dispensary within the city in violation of the provisions of this chapter and is hereby declared a public nuisance and may be abated pursuant to all available remedies.~~

~~— D. Commercial cannabis growers properly licensed by the city of Hanford and the state of California are exempt from subsection B. (Ord. 17-18 § 1, 2017)~~

8.32.080 Regulations applicable to the consumption of cannabis.

No person shall smoke, ingest, or otherwise consume cannabis or cannabis products, whether recreational or medical, in the city unless such smoking, ingesting or consumption occurs entirely within a private residence. "Within a private residence" shall mean inside habitable areas and shall not include garages, whether attached or detached, and other accessory buildings unless those buildings are at all times fully enclosed during the consumption.

All consumption shall be done in a manner so as to not cause a nuisance to nearby residents with noxious odors or other adverse health and safety impacts. (Ord. 17-18 § 1, 2017; Ord. 16-11 § 1, 2016)

8.32.090 Nuisance and penalties for violation.

A. Violation of this chapter is hereby declared a public nuisance.

B. Any person violating any of the provisions of this chapter shall be guilty of a misdemeanor and subject to a maximum penalty of six (6) months imprisonment in the County Jail or a fine of one thousand dollars (\$1,000.00), as well as the administrative penalties as set forth in this code, including, without limitation, Section 17.68.150, as may be amended. Violators shall be subject to any other enforcement remedies available to the city under any applicable state or federal statute or pursuant to any other lawful power the city may possess.

C. Each day a violation continues and every violation of this chapter shall constitute a separate violation and shall be subject to all remedies.

D. In the event any civil suit or action is brought by the city to enforce the provisions of this chapter, the person or persons responsible for such violation shall be liable to the city for costs of the suit, including, but not limited to, attorneys' fees. (Ord. 17-18 § 1, 2017; Ord. 16-11 § 1, 2016; Ord. 14-11 § 1, 2014)

8.32.100 Severability.

If any part or subsection of this chapter is for any reason held to be invalid, unlawful, or unconstitutional, such invalidity, unlawfulness, or unconstitutionality shall not affect the validity, lawfulness, or constitutionality of any other part of this chapter. (Ord. 17-18 § 1, 2017; Ord. 16-11 § 1, 2016; Ord. 14-11 § 1, 2014)

ORDINANCE NO. 23-05

**AN ORDINANCE AMENDING HANFORD MUNICIPAL CODE CHAPTERS 5.56 –
COMMERCIAL CANNABIS ACTIVITY & 8.32 CANABIS**

WHEREAS, the City of Hanford is a general law city organized pursuant to Article XI of the California Constitution; and

WHEREAS, pursuant to the authority granted the City by Article XI, Sections 5 and 7 of the California Constitution, the City has the power to make and enforce within its limits all ordinances and regulations in respect to municipal affairs not in conflict with general laws and its own charter; and

WHEREAS, on November 8, 2016, Proposition 64 the “Adult Use Marijuana Act” known as (“AUMA”) was approved by California voters for the purpose of providing a comprehensive regulatory framework for the licensing, control, and taxation of non-medical commercial cannabis related businesses in California; and

WHEREAS, MCRSA and AUMA expressly protects a City’s local licensing practices, zoning authority, and other local actions taken under the City’s constitutional municipal and police powers for the purpose of commercial cannabis activities; and

WHEREAS, Hanford Municipal Code Chapter 5.56 and Chapter 8.32 outline the process by which Commercial Cannabis Businesses Licenses may be issued within Hanford city limits; and

WHEREAS, the City Council desires to establish reasonable policies and procedures for the approval of cannabis businesses; and

WHEREAS, the City Council finds that the adoption of this ordinance is exempt from environmental review under the California Environmental Quality Act (CEQA) pursuant to CEQA Guidelines, 14 Cal. Code of Regulations, Chapter 3.

NOW THEREFORE, The City Council of the City of Hanford does ordain as follows:

SECTION 1. CHAPTER 5.56 – COMMERCIAL CANNABIS ACTIVITY & CHAPTER 8.32 CANABIS 17.69 of the Hanford Municipal Code are enacted as attached as Exhibit A.

SECTION 2. That that Municipal Code Amendment 2023-05 is exempt from CEQA is accordance with Section 15061(b)(3) of the CEQA Guidelines.

SECTION 3. That the ordinance shall take effect thirty (30) days after its passage, and shall be published once in the Hanford Sentinel within fifteen (15) days after its passage or a summary of this ordinance shall be published in the Hanford Sentinel in a manner consistent with the requirements of the California Government Code.

Passed and adopted at a regular meeting of the City Council of the City of Hanford duly called and held on January 16, 2024, by the following roll call vote:

AYES: _____

NOES: _____

ABSTAIN: _____

ABSENT: _____

APPROVED

Travis Paden
MAYOR of the City of Hanford

ATTEST:

NATALIE CORRAL
CITY CLERK

STATE OF CALIFORNIA)
COUNTY OF KINGS) ss
CITY OF HANFORD)

I NATALIE CORRAL, City Clerk of the City of Hanford, do hereby certify the foregoing ordinance was duly introduced at a regular meeting of the City Council of the City of Hanford on the ___th day of January, 2024, and it was duly passed and adopted at a regular meeting of the City Council of the City of Hanford held on the day ___ of _____, 2024.

NATALIE CORRAL
CITY CLERK



AGENDA STAFF REPORT

MEETING DATE: 1/16/2024

AGENDA SECTION: CONSENT CALENDAR

SUBJECT:

Adoption of a separate Commercial Cannabis Business Permit Application for all Non-Retail operations, consistent with previous Council direction.

RECOMMENDATION:

Recommendation: That the City Council, by motion, Adopt the Non-Retail Commercial Cannabis Business Permit Application

BACKGROUND:

In addition to the ordinance changes proposed by staff, and already approved at the first reading by Council, an update to the Non-Retail Commercial Cannabis Business Permit Application is needed to expedite and improve the City's cannabis permitting process. The Non-Retail Commercial Cannabis Business Permit Application outlines the process by which potential cannabis businesses can receive approval to operate in Hanford. The proposed Non-Retail Commercial Cannabis Business Permit Application is provided with this staff report.

Staff are not proposing changes to the number of cannabis businesses allowed within Hanford or changing the location or safety requirements for cannabis businesses.

The application process for Cannabis Storefront Retail licenses, previously established by Council, will remain the same and are not part of the proposed changes to the application process.

FISCAL IMPACT:

ATTACHMENTS:

1. Non- Retail Commercial Cannabis Business Permit

City of Hanford Non-Retail Commercial Cannabis Business Permit Checklist

All Cannabis Business applications must be submitted through the City's online application portal: <https://bit.ly/3us3qJ6>

Please have the following items ready before you apply:

Section 1 – License Selection

- ☐ Confirmation of License Type that will be requested.

Section 2 – Site Plan, Zoning and Buffer Map

- ☐ Site Plan
- ☐ Sensitive Uses Map
- ☐ Zoning verification form

Section 3 – Security Plan

- ☐ Operations and Security Plan, including all requested attachments.

Section 4 – Applicant Information

- ☐ The name of the applicant. If the applicant is an individual, both first and last name of the individual. For applicants that are business entities, the legal business name of the applicant.
- ☐ The mailing address of the applicant.
- ☐ The physical address of the premises.
- ☐ The phone number of the premises (if available).
- ☐ The contact information for the designated primary contact person including the name, title, address, phone number and e-mail address of this individual.
- ☐ A list of types and numbers of licenses already received by the applicant from the California Bureau of Cannabis Regulation including the date the license was obtained and the licensing authority that issues the license.
- ☐ A copy of all documents filed with the California Secretary of State including but not limited to: business formation documents (e.g., Articles of Incorporation for corporation or Articles of Organization for limited liability company), a current Statement of Information, and a Certificate of Status. If applicant is a foreign corporation, a certificate of qualification issued by the California Secretary of State pursuant to Section 2105 of the Corporations Code. If applicant is a foreign limited liability company, a certificate of registration to transact business issued by the California Secretary of State pursuant to Section 17708.02 of the Corporations Code.
- ☐ If applicant is a cultivator, an Agricultural Employer declaration/statement.

Section 5 – Right to Occupy

- ☐ Evidence of Legal Right to Occupy
- ☐ Signed Affidavit(s)

Section 6 – Affidavits, Background and Indemnification

- ☐ A complete list of every person with over 20% interest in the proposed business including the full name, title within the entity, birthdate and place of birth, social security or tax identification number, phone number, e-mail, the date owner acquired interest in entity, the percentage of ownership interest, and if applicable the number of shares owned, any financial interest in any other cannabis business licensed by the State of California.
- ☐ For each owner a completed Live Scan/Background Packet (fee applies)
- ☐ Signed indemnification agreement and acknowledgement form.

Section 7 – Certification

- ☐ Applicant Certification Letter saying all information contained on all application documents is true and accurate.

Items that must be completed prior to operating that are not included in the Cannabis Business Permit Application

- ☐ CEQA/Environmental Process
- ☐ Conditional Use Permit
- ☐ Employee Permits

APPLICATION REQUIREMENTS

All requested items and authorizations listed on this form must be completed and submitted through the City's **online application portal** or the application will be rejected. The applicant must meet any additional standard criteria and fulfill any additional standard requirements typically associated with obtaining a Conditional Use Permit in the City. Requirements shall conform to the State licensing requirements as set forth by the California Business and Professions Code, Division 8, Chapter 3.5. Permit fees include a non-refundable application fee.

Section 1- Specific Activity Requested

Please be prepared to indicate one of the license type in the City's online application portal from the choices below:

Cultivation:

- ☐ Indoor/Mixed Light, Commercial A - permitted canopy area: 0 to 5,000 square feet
- ☐ Indoor/Mixed Light, Commercial B – permitted canopy area: 5,001 to 10,000 square feet
- ☐ Indoor/Mixed Light, Commercial C – permitted canopy area: 10,001 to 22,000 square feet
- ☐ Indoor/Mixed Light, Commercial D – permitted canopy area: over 22,000 square feet
- ☐ Nursery
- ☐ Processor

Manufacturing:

- ☐ Commercial Cannabis Manufacturing – Non-Volatile Only
- ☐ Commercial Cannabis Manufacturing – Volatile
- ☐ Commercial Cannabis Manufacturing – Infusion
- ☐ Commercial Cannabis Manufacturing – Packaging and labeling

Distribution:

- ☐ Commercial Cannabis Distribution
- ☐ Commercial Cannabis Transport

Testing:

- ☐ Commercial Cannabis Testing

Section 2 - Site Plan

The Site plan must be submitted as a PDF through the City's online application portal and must include the following (multiple pages are allowed, if needed):

1. Provide a scaled premises diagram showing the boundaries of the property and proposed premises with all boundaries, dimensions, entrances and exits, interior partitions, walls, rooms, windows and common or shared entryways. The diagram shall show the areas in which all commercial cannabis activities will take place. If the proposed premise consists of only a portion of the property, the diagram shall be labeled indicating which part of the property is the proposed premises and what the remaining property is used for. The site plan must show the distances from the buildings(s) to all property lines.
2. Attach a floor plan, drawn to scale indicating dimensions and total square footage.
3. The plan shall include the assessor's parcel number and shall be to scale and include all the following:

Cultivation License:

- ☐ Canopy area(s) which shall contain all mature plants on the premises
- ☐ Propagation area(s) which shall contain only immature plants
- ☐ Designated pesticide and other agricultural chemical storage area(s)
- ☐ Designated holding area for cannabis designated for destruction
- ☐ Designated processing area(s) if licensee will process on site
- ☐ Designated packaging area(s) if licensee will package on site
- ☐ Designated composting area if licensee will compost plant waste on site
- ☐ Designated parking spaces
- ☐ Designated refuse areas
- ☐ Designated area(s) for harvested cannabis storage.
- ☐ Location, type and capacity of each water storage unit to be used for cultivation
- ☐ Location, type and capacity of each waste receptacle to be used for cultivation
- ☐ Photographs of the exterior of the building including the entrance(s), exit(s), street frontage(s), signage, and parking area.

Manufacturing License:

- ☐ Designated area(s) for cannabis manufacturing equipment
- ☐ Designated holding area for cannabis designated for destruction
- ☐ Designated processing area(s) if licensee will process on site
- ☐ Designated packaging area(s) if licensee will package on site
- ☐ Designated composting area if licensee will compost plant waste on site
- ☐ Designated refuse areas
- ☐ Designated area(s) for cannabis storage
- ☐ Designated parking spaces
- ☐ Photographs of the exterior of the building including the entrance(s), exit(s), street

Distribution License:

- ☐ Designated holding area for cannabis designated for destruction
- ☐ Designated processing area(s) if licensee will process on site
- ☐ Designated packaging area(s) if licensee will package on site
- ☐ Designated composting area if licensee will compost plant waste on site
- ☐ Designated refuse areas
- ☐ Designated area(s) for cannabis storage
- ☐ Designated parking spaces
- ☐ Photographs of the exterior of the building including the entrance(s), exit(s), street frontage(s) and parking area.

Testing License:

- ☐ Designated area(s) for cannabis testing equipment
- ☐ Designated holding area for cannabis designated for destruction
- ☐ Designated composting area if licensee will compost plant waste on site
- ☐ Designated refuse areas
- ☐ Designated area(s) for cannabis storage
- ☐ Designated parking spaces
- ☐ Photographs of the exterior of the building including the entrance(s), exit(s), street frontage(s), signage, and parking area.

Cannabis Business Application - Zoning Verification

You must obtain an approved Zoning Verification Form for the proposed location. Be prepared to provide the following in the online application portal:

Property

Street Address _____ Zip: _____

Lot Area (in Square Feet or Acres): _____ Existing Zoning: _____

Existing Use of Property: _____

Assessor Parcel Number: _____

Proposed Use

Trade Name of Establishment (dba): _____

Description of proposed use: (including proposed use and summarize type of activity, as applicable):

Cannabis Business Application – Distance from Sensitive Uses

Sensitive Uses Map

Attach a PDF street map that is drawn to scale. Indicate the proposed premise and a circle showing distances from sensitive uses, including:

- ☐ 200 feet to any property zoned RL-5, RL-8, RL-12, R-M, R-H
- ☐ 600 feet from a school (whether public, private, or charter; including pre-school, transitional kindergarten, and K-12); A daycare facility serving nine (9) or more children and is licensed by the State; Any youth facility as defined in State of California Health and Safety Code Section 11353.1(e)(2)

Section 3 – Operations and Security Plan Questionnaire

The following questions will need to be answered as part of the online application process:

- ☐ Applicant's practices for transfer of cannabis products from premises.

- ☐ Estimated number of employees.

- ☐ Description of applicant's video surveillance system including camera placement and practices for maintenance of video surveillance equipment.

- ☐ How applicant will ensure that all access points to the premises will be secured including the use of security personnel if applicable.

- ☐ A description of the applicant's security alarm system and fire suppression system.

☐ A description of how inventory will be stored.

☐ A description of the operating hours of the facility.

☐ A description of how any records, reports, manifests and any other documents will be stored.

☐ A description of the Track and Trace system the Applicant will employ.

☐ Method(s) that will be used to dispose of unused cannabis.

Section 4 – Owner and Contact Information

Proposed Name of Business: _____

1. Applicant Entity Structure: (attach proof of status such as articles of incorporation, by-laws, partnership agreements, and other documentation that supports status).

☐ Corporation

☐ Unincorporated Association

☐ Other

(describe): _____

Tax Identification Number: _____

Business Applicant (Print Name): _____

Business Applicant Address: _____

Telephone: _____

Email: _____

Mobile: _____

Previous Business/Employment History (to cover 5 years): _____

Business Applicant: _____ Date: _____

Name (Please Print)

Title: _____

Signature

Primary Contact (Print Name): _____

Primary Contact Address: _____

Telephone: _____

Email: _____

Mobile: _____

Previous address(es) (to cover 5 years): _____

Attach a PDF copy of:

- ☐ Copy of Seller's Permit issued by appropriate State of California Agency,
- ☐ Proof of address (Legal issued ID/driver's license),
- ☐ Proof of General Liability Policy,
- ☐ A list of types and numbers of licenses already received by the applicant from the California Bureau of Cannabis Regulation including the date the license was obtained and the licensing authority that issues the license.
- ☐ A copy of all documents filed with the California Secretary of State including but not limited to: business formation documents. If applicant is a foreign corporation, a certificate of qualification issued by the California Secretary of State pursuant to Section 2105 of the Corporations Code.

Section 5 – Property Owner Affidavit

Property Owner Affidavit

I, _____, authorize the Commercial Cannabis activity entitled _____, to use/purchase this property as a Commercial Cannabis facility, as those terms are defined in the City of Hanford Municipal Code, should this facility obtain the appropriate Permit. I further understand that I am responsible for, and also subject to, enforcement actions regarding any violations and/or nuisance activity which may occur at this property if leasing the property to the applicant.

Legal Property Owner: _____ Date: _____

Name (Please print)

Title:

Signature

Legal Building Owner: _____ Date: _____

Name (Please print)

Title:

Signature

Attach:

- ☐ PDF showing proof of possession of the premises and approval of use (deed, lease, lease assignment, agreement showing willingness to sell property if applicant obtains permit)

Section 6 – Building Owner Affidavits

Building Owner Affidavit

I, _____, authorize the Commercial Cannabis Facility entitled _____ to use/purchase this property as a Commercial Cannabis facility, as those terms are defined in the City of Hanford Municipal Code, should this facility obtain a Permit. I further understand that I am responsible for, and also subject to, enforcement actions regarding any violations and/or nuisance activity which may occur at this property if leasing the property to the applicant.

Property Manager Affidavit (if applicable)

I, _____, authorize the Commercial Cannabis Facility entitled _____ to use this property as a Commercial Cannabis facility, as those terms are defined in the City of Hanford Municipal Code, should this facility obtain a Permit. I further understand that I am responsible for, and also subject to, enforcement actions regarding any violations and/or nuisance activity which may occur at this property.

Please complete the following information:

☐ A complete list of every person with over 20% interest in the proposed business including the full name, title within the entity, birthdate and place of birth, social security or tax identification number, phone number, e-mail, the date owner acquired interest in entity, the percentage of ownership interest, and if applicable the number of shares owned, any financial interest in any other cannabis business licensed by the State of California. For each owner a completed Live Scan check or receipt from Live Scan check.

Name	Title	DOB	SS#/Tax ID#	Contact Phone Number	Date of acquired interest	Percent of ownership	Live Scan Check

Section 7 - Applicant Certification

Under penalty of perjury, I hereby declare that the information contained within and attached to this application is complete true, and accurate. I understand that a misrepresentation of fact is cause for rejection of this application, denial of the license or revocation of a license issued. By submitting this application, I certify that I have read and understand the requirements of the application process and that I may be disqualified for failure to meet the requirements of state law or City ordinance, or for incomplete, late or inaccurate applications/attachments, and that all fees paid in connection with this application are non-refundable.

Signature of Applicant

Date _____

COMMERCIAL CANNABIS APPLICATION INDEMNIFICATION AGREEMENT

THIS INDEMNIFICATION AGREEMENT ("Agreement") is entered into this ____ day of _____, 20__ by and between the City of Hanford ("City") and _____ ("Applicant").

RECITALS

WHEREAS, the Applicant has a legal and/or equitable interest in the certain real property located at Assessor Parcel Number(s): _____ ("Property"); and

WHEREAS, the Applicant has submitted an application to the City for a cannabis business on the Property, pursuant to the City of Hanford Municipal Code, hereafter referred to as the "Project."

TERMS

NOW, THEREFORE, pursuant to the City of Hanford Municipal Code, and in consideration of the premises, covenants and provisions set forth herein, the receipt and adequacy of which are hereby acknowledged, the parties agree as follows:

1. Nothing in this Agreement shall be construed to limit, direct, impede or influence the City's review and consideration of the Project.
2. Applicant shall defend, indemnify, save and hold harmless the City of Hanford, its elected and appointed officials, officers, employees, agents and volunteers from any and all claims, actions, proceedings or liability of any nature whatsoever (including, but not limited to: any approvals issued in connection with any of the above described application(s) by City; any action taken to provide related environmental clearance under the California Environmental Quality Act ("CEQA") by City's advisory agencies, boards or commissions, appeals boards, or commissions, Planning Commission, or City Council; and attorneys' fees and costs awards) arising out of, or in connection with the City's review or approval of the Project or arising out of or in connection with the acts or omissions of the Applicant, its agents, employees or contractors.

With respect to review or approval, this obligation shall also extend to any effort to attack, set aside, void, or annul the approval of the Project, including any contention the Project or its approval is defective because a City ordinance, resolution, policy, standard or plan is not in compliance with local, State or federal law. With respect to acts or omissions of the Applicant, its agents, employees or contractors, its obligation, hereunder shall apply regardless of whether the City prepared, supplied or approved plans, specifications or both.

3. The obligations of the Owner and Applicant under this Indemnification shall apply regardless of whether any permits or entitlements are issued.
4. The City will promptly notify Owner and Applicant of any such claim, action, or proceeding that is or may be subject to this Indemnification and will cooperate fully in the defense. The City may, within its unlimited discretion, participate in the defense of any such claim, action, or proceeding if the City defends the claim, action, or proceeding in good faith.
5. The City Council shall have the absolute right to approve any and all counsel employed to defend the City. To the extent the City uses any of its resources to respond to such claim, action or proceeding, or to assist the defense, the Applicant will reimburse the City upon demand. Such resources include, but are not limited to, staff time, court costs, City Counsel's time at its regular rate for non-City agencies, or any other direct or indirect cost associated with responding to, or assisting in defense of, the claim, action or proceedings.
6. For any breach of this obligation the City may rescind its approval of the Project.
7. The Applicant shall not be required to pay or perform any settlement unless the settlement is approved in writing by the Applicant, which approval shall not be unreasonably withheld. The City must approve any settlement affecting the rights and obligations of the City.
8. The parties agree that this Agreement shall constitute a separate agreement from any Project approval, and that if the Project, in part or in whole, is invalidated, rendered null or set aside by a court of competent jurisdiction, the parties agree to be bound by the terms of this Agreement, which shall survive such invalidation, nullification or setting aside.
9. This Agreement shall be construed and enforced in accordance with the laws of the State of California.
10. The Applicant shall pay all court ordered costs and attorney fees.
11. The defense and indemnification of City set forth herein shall remain in full force and effect throughout all stages of litigation including appeals of any lower court judgments rendered in the proceeding.

After review and consideration of all of the foregoing terms and conditions, Applicant, but its signature below, hereby agrees to be bound by and to fully and timely comply with all of the foregoing terms and conditions.

Dated: _____

Applicant(s):

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Printed Name

Signature

Commercial Cannabis Permit Application

Acknowledgement Form

- ✓ I/we have read, fully understand and agree to operate within the regulations identified in The City of Hanford's Ordinances and all other applicable state laws and regulations as it relates to commercial cannabis operations and further understand that my permit(s) may be revoked for not operating in compliance with said regulations.
- ✓ I/we understand the City reserves the right to reduce the size of area allowed for cultivation under any clearance or license issued, in the event that environmental conditions, such as a sustained drought or low flows in the watershed will not support diversions for irrigation.
- ✓ I/we understand that it is our responsibility as the applicant to obtain will serve letters from all utility companies that will be serving my development. I/we understand that we will bear the sole cost of any upgrades, transmission improvements needed to serve my development as required by the utility companies.
- ✓ I/we agree that all structures utilized for Commercial Cannabis Businesses will be planned and built in accordance with applicable Building Codes and to the satisfaction of the City.
- ✓ I/we understand that the information I provide with my application may be released as required by law, judicial order, or subpoena, and could be used in a criminal prosecution.
- ✓ I/we agree to defend, indemnify, and hold harmless the City from any defense costs, including attorneys' fees or other loss connected with any legal challenge brought as a result of the City's review and/or approval of this license issuance. I/we agree to execute a formal agreement to this effect on a form provided by the City and available for my inspection.
- ✓ I/we understand that the application fee is non-refundable even if I cancel my application or it is denied during the process.
- ✓ I/we acknowledge that without a complete application package my application may be delayed.
- ✓ I/we recognize that the Community Development Department and Police Chief reserves the right to request additional information if necessary to complete review or processing of the application, and confirm or promote conformance to ordinance-specific requirements and standards.
- ✓ I/we authorize the City, its agents, and employees to seek verification of the information contained within the application including a background check of the applicant and all employees and independent contractors.

Printed Name

Signature

Date

Printed Name

Signature

Date

Background Investigation Packet
(Must be completed prior to application submittal)



AGENDA STAFF REPORT

MEETING DATE: 1/16/2024	AGENDA SECTION: CONSENT CALENDAR
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SUBJECT:

Approval of a Notice of Completion for Tract 922, Unit 2, located at the southeast corner of 13th Avenue and Devon Street.

RECOMMENDATION:

Recommendation: That the City Council, by motion, approve a Notice of Completion for Tract No. 922, Unit 2 and authorize the Mayor to execute and the City Clerk to attest and file said Notice with the Kings County Recorder's Office.

BACKGROUND:

On June 26, 2019, the Council approved the subdivision agreement and final map for Tract No. 922, Unit 2, a 98-lot residential subdivision located as shown on the attached map. The developer of the subdivision is Lennar Homes. The developer has completed all public improvements for the subdivision and posted a 10 percent warranty security, which shall remain in effect for a minimum of one year after the attached Notice of Completion is recorded.

FISCAL IMPACT:

The public improvements have been constructed by the developer as required by the subdivision conditions of approval, and no fiscal impact to the budget will result from approval of the Notice of Completion.

ATTACHMENTS:

1. Vicinity Map
2. Tract 922 Phase 2 - NOC - Recording
3. Tract 922 Phase 2 - NOC - Recording

LENNAR HOMES
UNIT 2

COUNTY TRACT NO. 922
CITY OF HANFORD, COUNTY OF KINGS,
STATE OF CALIFORNIA

BASIS OF BEARINGS

THE SOUTH LINE OF THE SOUTHWEST QUARTER OF SECTION 22, T. 18 S., R. 21 E., M.D.B. & M., BEARS N 89° 59' 41" W PER P.M. 19-65, K.C.R.

SURVEYOR'S NOTE

ALL CURVES ARE TANGENT UNLESS OTHERWISE NOTED

MONUMENT NOTE:

THE SIDE AND REAR LOT CORNERS, ADJACENT TO, DEVON STREET & 13TH AVENUE, ARE MONUMENTED WITH 1/2" REBAR, 30" LONG, WITH YELLOW PLASTIC TAG MARKED R.C.E. 21489 SET 6" +/- DEEP, ON THE LOT LINE, A DISTANCE OF 14.00 FEET (MEASURED PERPENDICULARLY) FROM THE SIDE OR REAR LOT LINE. THOSE ADJACENT TO THE REAR LOT CORNERS ADJACENT TO MUSTANG DRIVE AND STAGECOACH DRIVE ARE THE SAME BUT SET 9.00 FEET (MEASURED PERPENDICULARLY) FROM THE SIDE OR REAR LOT LINE.

SPECIAL MONUMENT NOTE:

ALL FRONT CORNERS ADJACENT TO STREETS ARE MONUMENTED AS WITNESS CORNERS, SET ON THE INTERSECTION OF THE LOT LINE AND THE FRONT P.U.E. LINE AND ARE MARKED BY 1/2" REBAR, 30" LONG WITH RED PLASTIC TAG STAMPED "CONT. PT., R.C.E. 21489", AND SET 6"± DEEP, EXCEPT AS SHOWN OTHERWISE.

LEGEND

- FOUND STEEL SPIKE WITH BRASS TAG, R.C.E. 21489, FLUSH IN PAVEMENT EXCEPT AS NOTED OTHERWISE
- ▲ FOUND 2-1/2" BRASS CAP STAMPED R.C.E. 21489, ON A 2" I.P., INSIDE A MON. WELL
- ⊙ SET STEEL SPIKE WITH BRASS TAG, R.C.E. 21489, FLUSH IN PAVEMENT
- △ SET 2"X24" GALV. I.P. WITH BRASS CAP STAMPED R.C.E. 21489 IN MONUMENT WELL, MONUMENT WELL SET FLUSH IN PAVEMENT.
- LOT CORNERS ARE MARKED WITH 1/2" REBAR, 30" LONG, TAGGED R.C.E. 21489, SET 6" DEEP
- INDICATES 6' PUBLIC UTILITY EASEMENT
- △ NOW OFFERED FOR DEDICATION AS PUBLIC STREETS
- [] RECORD DATA PER PM 19-65, K.C.R.
- [] RECORD DATA PER LSP 21-53, K.C.R.
- { } RECORD DATA PER LSP 23-41, K.C.R.
- (()) RECORD DATA PER LSP 25-41, K.C.R.
- DISTANCE WAS CONVERTED FROM GRID TO GROUND BY A MULTIPLIER OF 1.0000506282 PER L.S.P. 23-41 K.C.R.
- () INDICATES STREET ADDRESSES
- ////// ACCESS DENIED TO MUSTANG DRIVE, DEVON STREET, W. STAGECOACH DRIVE AND 13TH AVENUE
- ||||| EXTERIOR BOUNDARY OF THE LAND WITHIN THE SUBDIVISION
- K.C.R. KINGS COUNTY RECORDS
- K.C.C.R. KINGS COUNTY CORNER RECORD
- K.C.O.R. KINGS COUNTY OFFICIAL RECORDS
- ALL DIMENSIONS ARE IN FEET AND DECIMALS THEREOF

LEGAL DESCRIPTION

PARCEL 1:
PARCEL B OF PARCEL MAP WAIVER FOR LOT LINE ADJUSTMENT NO. 2018-02, RECORDED APRIL 12, 2018, INSTRUMENT NO. 1805896, MORE PARTICULARLY DESCRIBED AS FOLLOWS:
ALL THAT PORTION OF THE SOUTHWEST QUARTER OF SECTION 22, TOWNSHIP 18 SOUTH, RANGE 21 EAST, MOUNT DIABLO BASE AND MERIDIAN, ACCORDING TO THE APPROVED GOVERNMENT TOWNSHIP PLATS THEREOF, IN THE CITY OF HANFORD, COUNTY OF KINGS, STATE OF CALIFORNIA DESCRIBED AS FOLLOWS:
BEGINNING AT THE NORTHWEST CORNER OF SAID SOUTHWEST QUARTER, ALSO BEING THE NORTHWEST CORNER OF PARCEL 1, AS SHOWN ON A MAP RECORDED IN BOOK 16 AT PAGE 15 OF PARCEL MAPS IN THE OFFICE OF THE KINGS COUNTY RECORDER;
THENCE NORTH 89° 56' 17" EAST, ALONG THE NORTH LINE OF SAID SOUTHWEST QUARTER, A DISTANCE OF 1,582.15 FEET TO THE NORTHEAST CORNER OF PARCEL 2 OF SAID PARCEL MAP 16-15;
THENCE SOUTH 0° 21' 52" WEST, ALONG THE EAST LINE OF LAST SAID PARCEL 2 AND PARCEL 4 OF SAID PARCEL MAP, A DISTANCE OF 2,032.96 FEET TO A POINT 17.12 FEET SOUTHERLY OF THE SOUTH LINE OF SAID PARCEL 2;
THENCE SOUTH 89° 56' 32" WEST, PARALLEL WITH AND 17.12 FEET SOUTHERLY OF LAST SAID SOUTH LINE, A DISTANCE OF 107.25 FEET; THENCE ON A CURVE TO THE LEFT, CONCAVE WESTERLY IN WHICH THE CENTER POINT BEARS SOUTH 75° 27' 21" WEST, WITH A RADIUS OF 1,166.00 FEET, THROUGH A CENTRAL ANGLE OF 20° 47' 20", AN ARC LENGTH OF 423.07 FEET;
THENCE, ON A TANGENT, NORTH 35° 20' 00" WEST, A DISTANCE OF 445.08 FEET;
THENCE ON A TANGENT CURVE TO THE LEFT, CONCAVE SOUTHERLY WITH A RADIUS OF 20.00 FEET, THROUGH A CENTRAL ANGLE OF 87° 36' 45", AN ARC LENGTH OF 30.58 FEET;
THENCE SOUTH 57° 03' 15" WEST, A DISTANCE OF 134.65 FEET;
THENCE ON A TANGENT CURVE TO THE RIGHT, CONCAVE NORTHERLY WITH A RADIUS OF 834.00 FEET, THROUGH A CENTRAL ANGLE OF 32° 53' 45", AN ARC LENGTH OF 478.83 FEET;
THENCE ON A TANGENT SOUTH 89° 57' 00" WEST, A DISTANCE OF 437.62 FEET TO A POINT 68.00 FEET SOUTHERLY OF THE SOUTH LINE OF A PARCEL AS ADJUSTED PER LOT LINE ADJUSTMENT 03-01 AND RECORDED AS DOCUMENT NO. 0307109, SAID POINT BEING ON THE WEST LINE OF SAID SOUTHWEST QUARTER;
THENCE NORTH 0° 08' 05" EAST, ALONG THE LAST SAID WEST LINE, A DISTANCE OF 68.00 FEET TO THE SOUTHWEST CORNER OF LAST SAID PARCEL;
THENCE NORTH 89° 57' 00" EAST, ALONG THE SOUTH LINE OF SAID PARCEL, A DISTANCE OF 350.00 FEET TO THE SOUTHEAST CORNER OF SAID PARCEL;
THENCE NORTH 0° 08' 05" EAST, PARALLEL WITH AND 350.00 FEET EASTERLY OF THE WEST LINE OF SAID SOUTHWEST QUARTER, ALONG THE EAST LINE OF SAID PARCEL, A DISTANCE OF 248.92 FEET TO THE NORTHEAST CORNER OF SAID PARCEL;
THENCE SOUTH 89° 57' 00" WEST, ALONG THE NORTH LINE OF SAID PARCEL, A DISTANCE OF 350.00 FEET TO A POINT ON THE WEST LINE OF SAID SOUTHWEST QUARTER;
THENCE NORTH 0° 08' 05" EAST, ALONG THE LAST SAID WEST LINE, A DISTANCE OF 1,172.30 FEET TO THE TRUE POINT OF BEGINNING.
PURSUANT TO THAT CERTAIN PARCEL MAP WAIVER FOR LOT LINE ADJUSTMENT NO. 06-04, RECORDED MAY 04, 2006, AS DOCUMENT NO. 0613136, OFFICIAL RECORDS.
EXCEPTING THEREFROM THOSE AREAS LYING WITHIN WEST STAGECOACH WAY, NORTH MUSTANG DRIVE, AND BERKSHIRE LANE, AS DESCRIBED IN A DEED FROM PIONEER UNION ELEMENTARY SCHOOL DISTRICT TO THE CITY OF HANFORD AND RECORDED AS DOCUMENT NO. 1107030, KINGS COUNTY RECORDS.
ALSO EXCEPTING THEREFROM THE FOLLOWING PARCEL:
ALL THAT CERTAIN PROPERTY LYING WITHIN THE BOUNDARIES OF THAT CERTAIN MAP ENTITLED, THE MAP OF LENNAR HOMES UNIT 1, COUNTY TRACT NO. 922, FILED JULY 12, 2019, IN VOLUME 26 OF LICENSED SURVEYOR'S PLATS, PAGE 47, KINGS COUNTY RECORDS.
PARCEL 2:
THE DESIGNATED REMAINDER, AS SHOWN ON THE MAP OF LENNAR HOMES UNIT 1, COUNTY TRACT NO. 922, FILED JULY 12, 2019, IN VOLUME 26 OF LICENSED SURVEYOR'S PLATS, PAGE 47, KINGS COUNTY RECORDS.

GRANGEVILLE BOULEVARD

609 N. IRWIN ST.

HANFORD, CA. 93230

PH. (559) 582-1056

FILE NO. 0747227

SHEET TWO OF FIVE SHEETS

RECORDING REQUESTED BY:
CITY OF HANFORD

When recorded return to:

City Clerk
City of Hanford
315 North Douty Street
Hanford, California 93230-3951

G.C. 27361.3 - Fee NIL

NOTICE OF COMPLETION

TO WHOM IT MAY CONCERN:

YOU ARE HEREBY NOTIFIED AS FOLLOWS:

1. The work of Improvement is located at: Tract No. 922, Unit 2
2. The Improvement is particularly described as: Subdivision Infrastructure Improvements
3. The date of completion of the work of Improvement: November 9, 2023
4. The Owner of the work of Improvement: City of Hanford
5. The nature of the owner's interest or estate: Fee Simple
6. The name of the original contractor for the work of Improvement: Lennar Homes
7. The surety for the work of Improvement: Liberty Mutual Insurance Company
8. Accepted by minute action of the City Council of the City of Hanford on: January 16, 2024.

I certify under penalty of perjury that the foregoing is true and correct.
Dated this 24th day of January, 2024.

BY: _____
Travis Paden, Mayor
City of Hanford, County of Kings, State of California

I, the undersigned, say:

I am the person who signed the foregoing notice. I have read the above notice and know its contents, and the facts stated therein are true of my own knowledge.

I declare under penalty of perjury that the foregoing is true and correct.

Executed at Hanford, California, this _____ day of _____ 2024.

BY: _____
Travis Paden, Mayor
City of Hanford, County of Kings, State of California

Authority: Section 1181 Civil Code

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CITY OF HANFORD

When recorded return to:

City Clerk
City of Hanford
315 North Douty Street
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BY: _____
Travis Paden, Mayor
City of Hanford, County of Kings, State of California

Authority: Section 1181 Civil Code

**INTERLOCAL AGREEMENT
BETWEEN THE CITY OF HANFORD AND COUNTY OF KINGS,**

2023 BYRNE JUSTICE ASSISTANCE GRANT (JAG) PROGRAM AWARD

This Agreement is made and entered into this 18 day of December, 2023, by and between the City of Lemoore, acting by and through its governing body, the City Council, hereinafter referred to as The City of Lemoore, and the City of Hanford, acting by and through its governing body, the City Council, hereinafter referred to as The City of Hanford, both of Kings County, State of California, witnesseth:

WHEREAS, this Agreement is made under the authority of Sections 930 through 930.6 of the Government Code: and

WHEREAS, each governing body, in performing governmental functions or in paying for the performance of governmental functions hereunder, shall make that performance or those payments from current revenues legally available to that party; and

WHEREAS, each governing body finds that the performance of this Agreement is in the best interests of both parties, that the undertaking will benefit the public, and that the division of costs fairly compensates the performing party for the services or functions under this agreement; and

WHEREAS, the CITY agrees to provide the City of Lemoore \$11,508.00 from the JAG award for the City of Lemoore designated program.

NOW THEREFORE, the COUNTY and CITY agree as follows:

Section 1.

The City of Hanford will act as the fiscal agent that submits the joint City of Hanford-City of Lemoore application to the FY 2023 Byrne Justice Assistance Grant Program for the JAG, and administers the resulting JAG. Contingent upon available funding, The City of Hanford agrees to pay The City of Lemoore a total amount of \$11,508.00.

Section 2.

The City of Lemoore agrees to use \$11,508.00 for the JAG Program until September 30 2026, whereupon any unused funds shall be remitted to the US Department of Justice's Bureau of Justice Assistance consistent with program requirements.

Section 3.

Nothing in the performance of this Agreement shall impose any liability for claims against The City of Lemoore other than claims for which liability may be imposed by the California Tort Claims Act.

Section 4.

Nothing in the performance of this Agreement shall impose any liability for claims against The City of Hanford other than claims for which liability may be imposed by the California Tort Claims Act.

Section 5.

The parties are acting in an independent capacity. Each of the parties agrees that it, including any and all of its officers, agents, and employees, shall have no right to employment rights or benefits available to the other party's employees. Each party shall be solely liable and responsible for providing to, or on behalf of, its own officers, agents, and employees all legally and contractually required employee benefits. In addition, each party shall be solely responsible and save the other party harmless from all matters relating to payment of each party's employees.

Section 6.

Each party to this agreement will be responsible for its own actions in providing services under this Agreement and shall not be liable for any civil liability that may arise from the furnishing of the services by the other party.

Section 7.

The parties to this Agreement do not intend for any third party to obtain a right by virtue of this Agreement.

Section 8.

By entering into this Agreement, the parties do not intend to create any obligations express or implied other than those set out herein; further, this Agreement shall not create any rights in any party not a signatory hereto.

City of Hanford, California

County of Kings, California

City Manager

County Chief Administrative Officer

ATTEST:

ATTEST:

City Clerk

Clerk of the Board

APPROVED AS TO FORM:

APPROVED AS TO FORM:

City Attorney

County Counsel



AGENDA STAFF REPORT

MEETING DATE: 1/16/2024

AGENDA SECTION: CONSENT CALENDAR

SUBJECT:

Authorization for the City Manager to execute a sole source purchase of a Pierce Fire Engine from Golden State Fire Apparatus (Sacramento, CA) for \$960,525 and appropriate \$1,000,000 in the General Fund contingent on confirmation of \$1,000,000 in State grant funding

RECOMMENDATION:

Recommendation: Authorization for the City Manager to execute a sole source purchase a Pierce Fire Engine from Golden State Fire Apparatus (Sacramento, CA) for \$960,525 and appropriate \$1,000,000 in the General Fund contingent on confirmation of \$1,000,000 in State grant funding.

Recommended Motion: I move to authorize the City Manager to execute a sole source purchase of a Pierce Fire Engine from Golden State Fire Apparatus (Sacramento, CA) for \$960,525 and appropriate \$1,000,000 in the General Fund contingent on confirmation of \$1,000,000 in State grant funding.

BACKGROUND:

On June 20, 2023, City Council approved the FY24/FY25 budget, which included purchasing one type 1 fire engine. However, the City has received notice of award of a \$1,000,000 grant for a Fire Equipment from the State, thanks in large part to Senator Hurtado. This fire engine is needed in order to keep the Fire Department's active engines in the most efficient working order. The long lead time of new fire engines makes the timing of this grant welcome news.

Due to the pending grant, staff reached out to the dealer of Pierce Fire Engines which is the manufacturer of existing Fire apparatus for the City. A quote was received and is good through January 31, 2024. The estimated arrival date for the new engine is 46 - 49 months upon order. This engine will replace an older engine at Station 3. The City will be able to return to State OES an engine currently being used.

The quote from Golden State Fire Apparatus in Sacramento, the closest Pierce dealer (there are two) in California, includes pricing through Sourcwell a cooperative purchasing contract agency, which allows participating municipal agencies to purchase equipment for a lower overall purchase price due to the larger overall quantity and contract pricing (Sourcwell #113021, ID #252 - Member #85061). As part of the confirmation process with the grant, staff will confirm if this type of procurement process complies with funding requirements.

Pierce apparatus are currently used throughout the department. Continuing to utilize Pierce saves on the training of Fire and Fleet personnel. Fire personnel routinely move between apparatus. Having a standardized fleet limits unnecessary delays with equipment familiarization and training. Our Fleet

division is trained to repair Pierce apparatus, including motors, transmissions, and pumps. Having different apparatus increases their training and equipment needs to maintain the apparatus and will also increase the volume of parts stored in our already limited warehouse.

On February 1, 2024, Pierce will institute a 1.5% increase to all apparatus. Securing the purchase of the engine before this date saves the City and prepaying for the engine saves \$156,353.26 for a total purchase price of \$960,524.24, which is actually less than the engine ordered earlier this fiscal year due to a larger prepayment discount.

FISCAL IMPACT:

Due to the pending \$1,000,000 grant for a Fire Engine and Training Tower from the State, this purchase will be fully reimbursed from grant funds. \$39,475 of the grant will remain for a training tower. \$1,000,000 appropriation in the General Fund will cover the expenditures that will be an equal offset by grant revenues to be amended into the budget.

The City will need to pay for additional equipment upon arrival of the engine in about three years which could be paid for from future fleet reserve funds.

ATTACHMENTS:

1. Hanford PUC Pumper Proposal Package - 02 Jan 24 (002)



GOLDEN STATE

FIRE APPARATUS

PREPARED ESPECIALLY FOR:

CITY OF HANFORD FIRE DEPARTMENT

One (1) Pierce Manufacturing, Inc.
Impel 1500 GPM PUC[™] Pumper



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- 1** Product Proposal
- 2** Standard Terms and Conditions (Exhibit A)
- 3** Product Specifications (Exhibit B)
 - Supporting Documents (If Applicable)
 - Electrical Analysis
 - Turning Radius Report
- 4** Product Warranties (Exhibit C)
- 5** Dealer Supplied Products and/or Services (Exhibit D)

1 PRODUCT PROPOSAL

OPTION A

100% PRE-PAYMENT

This will be the price of the Product(s) contingent upon the Customer paying the Grand Total Purchase Price to GSFA within thirty (30) calendar days of the Executed Date pursuant to the Payment Terms

IF YOU ELECT THIS OPTION,
IT RESULTS IN A SAVINGS OF
(\$164,874.37) OFF
OF THE GRAND TOTAL OF OPTION B

Please note this discount is also available contingent upon a Third Party (Leasing Company) paying 100% of the Grand Total Purchase Price on behalf of the Customer to GSFA within thirty (30) calendar days of the Executed Date pursuant to the Payment Terms

PRODUCT PROPOSAL FOR:

City of Hanford Fire Department

350 W. Grangeville Blvd.
Hanford, CA 93230

Sales Consultant

Dewayne Young
dyoung@goldenstatefire.com
Mobile: (209) 777-0650

SUBMITTED DATE	EXPIRATION DATE	GSFA PROPOSAL #	MANUFACTURER BID #	MANUFACTURER	CONSORTIUM
01/02/2024	01/31/2024	30102-24A	952	Pierce Manufacturing Inc.	Sourcewell #113021-OKC-1, ID #252 – Member #85061

Golden State Fire Apparatus, Inc. ("GSFA") is pleased to provide this proposal for the fire apparatus(es) and equipment identified below (the "Product") to CITY OF HANFORD FIRE DEPARTMENT ("Customer") for consideration. This proposal (this "Product Proposal") includes the following exhibits attached hereto: the Standard Terms and Conditions attached as Exhibit A (the "Terms and Conditions"); the Product Specifications attached as Exhibit B (the "Specifications"); the Product Warranties attached as Exhibit C; and the Dealer Supplied Products and/or Services attached as Exhibit D (the "Dealer Supplied Products/Services List") (all of the foregoing, collectively, the "Agreement"). Through its signature below or other Acceptance (as defined on page 2), Customer acknowledges having received and read, and agrees to be bound by, the Agreement. The Agreement shall be effective as of the latest date appearing in the signature blocks below (the "Executed Date").

ITEM	PRODUCT DESCRIPTION	UNIT PRICE
A	One (1) Pierce Manufacturing, Inc. Impel 1500 GPM PUC™ Pumper	1,046,747.89
B	<i>Pre-Payment Discount for 100% Payment at Time of Order (the "Prepayment Discount")</i>	<i>(153,353.26)</i>
C	SUBTOTAL	893,394.63
D	7.25% State Sales Tax	64,771.11
E	California Tire Fee	10.50
F	100% Performance Bond	2,348.00
G	GRAND TOTAL PURCHASE PRICE	960,524.24

PAYMENT TERMS – Customer shall pay the total purchase price set forth directly above (the "Grand Total Purchase Price") to GSFA within thirty (30) calendar days of the Executed Date. If payment of the Grand Total Purchase Price is late, a late fee as specified in section 6 of the Terms and Conditions may be applied, and the Prepayment Discount may be adjusted, and the Grand Total Purchase Price increased in accordance with section 2.c of the Terms and Conditions. Customer shall pay any balance due as a result of Change Orders as described in the Terms and Conditions.

MANUFACTURER – Customer acknowledges that GSFA is not an agent of the Product manufacturer identified above ("Manufacturer") and is not capable of binding Manufacturer. Within five (5) business days of the Executed Date, GSFA shall submit an order form to the Manufacturer for the Product. GSFA's further performance under the Agreement is contingent upon Manufacturer's acceptance of such order form at the price and on the terms GSFA believed to be available when submitting this Product Proposal to Customer. If Manufacturer rejects such order as submitted or fails to respond to GSFA within a reasonable

amount of time, GSFA shall notify Customer in writing, and unless GSFA and Customer otherwise agree in writing, the Agreement shall then terminate and have no further force or effect.

PRODUCT COMPLETION – The Product shall be ready for final inspection by Customer at the manufacturing facility within approximately **46 to 49 MONTHS** after the Executed Date. The foregoing estimate is provided as a good faith approximation as of the date of submission of this Product Proposal and is subject to the Terms and Conditions.

PREDELIVERY SERVICE – If applicable, after transportation from the manufacturing facility and prior to final delivery or pick up, the Product shall receive those additional Products and/or services identified on the Dealer Supplied Products/Services List. It is estimated that such a service will add approximately **0.5 to 1 MONTH(S)** to the above Product completion estimate. The foregoing estimate is provided as a good faith approximation as of the date of submission of this Product Proposal and is subject to the Terms and Conditions.

PROPOSAL EXPIRATION – This Product Proposal supersedes any previous proposal(s) presented to Customer by GSFA and its employees and may be accepted by Customer on or before the Expiration Date identified above. Unless accepted by the Expiration Date, GSFA reserves the right to withdraw this Product Proposal or to alter its terms (including by providing updated Product pricing) prior to an order being accepted.

PURCHASE ORDER – Any PO shall be made out to: *Golden State Fire Apparatus, Inc. – 7400 Reese Road – Sacramento, CA 95828.*

ACCEPTANCE – ACCEPTANCE OF THIS PROPOSAL CREATES AN ENFORCEABLE BINDING AGREEMENT BETWEEN GSFA AND CUSTOMER. “**ACCEPTANCE**” MEANS THAT THE CUSTOMER DELIVERS TO GSFA: (A) A SIGNED COPY OF THIS PRODUCT PROPOSAL, OR (B) A SIGNED COPY OF A PURCHASE ORDER INCORPORATING THE AGREEMENT IN ITS ENTIRETY. ANY ADDITIONAL OR DIFFERENT TERMS, WHETHER CONTAINED IN CUSTOMER’S FORMS OR OTHERWISE PRESENTED BY CUSTOMER AT ANY TIME, ARE HEREBY REJECTED AND OF NO EFFECT UNLESS APPROVED IN WRITING SIGNED BY GSFA.

COUNTERPARTS - This Product Proposal may be executed in multiple counterparts, each of which shall be deemed an original (including copies sent to a party by electronic transmission) as against the party signing such counterpart, but which together shall constitute one and the same instrument. A signed copy of this Product Proposal delivered by facsimile, email or other means of electronic transmission will be deemed to have the same legal effect as delivery of an original signed copy of this Product Proposal. If this Product Proposal is returned to GSFA with the signature of Customer’s authorized representative but without an attestation or co-signers signature, then absent Customer’s written notice to the contrary, GSFA shall be entitled to rely on such single signature as sufficient evidence of the signatory’s authority to execute the Agreement and bind Customer thereby.

INTENDING TO CREATE A BINDING AGREEMENT, Customer and GSFA have each caused this Product Proposal dated 01/02/2024, GSFA Proposal Number 30102-24A to be executed by their duly authorized representatives effective as of the Executed Date.

ACCEPTED AND AGREED TO BY CUSTOMER

Signature of Authorized Customer Representative

Print Name

Title

Date**ACCEPTED AND AGREED TO BY GSFA**

Signature of Authorized GSFA Representative

Print Name

Title

Date

OPTION B

PAYMENT AT TIME OF DELIVERY OR PICKUP

This will be the price of the Product(s) contingent
upon the Customer paying the Grand Total
Purchase Price to GSFA at time of delivery or pickup
pursuant to the Payment Terms

PRODUCT PROPOSAL FOR:

City of Hanford Fire Department

350 W. Grangeville Blvd.
Hanford, CA 93230

Sales Consultant

Dewayne Young
dyoung@goldenstatefire.com
Mobile: (209) 777-0650

SUBMITTED DATE	EXPIRATION DATE	GSFA PROPOSAL #	MANUFACTURER BID #	MANUFACTURER	CONSORTIUM
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B	7.25% State Sales Tax	75,889.22
C	California Tire Fee	10.50
D	100% Performance Bond	2,751.00
E	GRAND TOTAL PURCHASE PRICE	1,125,398.61

PAYMENT TERMS – Customer shall pay the total purchase price set forth directly above (the “**Grand Total Purchase Price**”) to GSFA no later than the time of GSFA’s delivery of the applicable Product to Customer’s address listed above (or Customer’s pick up of such Product at GSFA’s facilities, if approved by GSFA). GSFA shall have no obligation to deliver, or permit pick up of the Product if the Customer does not have full payment ready when the Product is complete and ready to deliver or pick up, as applicable. Customer shall pay any balance due as a result of Change Orders as described in the Terms and Conditions.

MANUFACTURER – Customer acknowledges that GSFA is not an agent of the Product manufacturer identified above (“**Manufacturer**”) and is not capable of binding Manufacturer. Within five (5) business days of the Executed Date, GSFA shall submit an order form to the Manufacturer for the Product. GSFA’s further performance under the Agreement is contingent upon Manufacturer’s acceptance of such order form at the price and on the terms GSFA believed to be available when submitting this Product Proposal to Customer. If Manufacturer rejects such order as submitted or fails to respond to GSFA within a reasonable amount of time, GSFA shall notify Customer in writing, and unless GSFA and Customer otherwise agree in writing, the Agreement shall then terminate and have no further force or effect.

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PROPOSAL EXPIRATION – This Product Proposal supersedes any previous proposal(s) presented to Customer by GSFA and its employees and may be accepted by Customer on or before the Expiration Date identified above. Unless accepted by the Expiration Date, GSFA reserves the right to withdraw this Product Proposal or to alter its terms (including by providing updated Product pricing) prior to an order being accepted.

PURCHASE ORDER – Any PO shall be made out to: *Golden State Fire Apparatus, Inc. – 7400 Reese Road – Sacramento, CA 95828.*

ACCEPTANCE – ACCEPTANCE OF THIS PROPOSAL CREATES AN ENFORCEABLE BINDING AGREEMENT BETWEEN GSFA AND CUSTOMER. “**ACCEPTANCE**” MEANS THAT THE CUSTOMER DELIVERS TO GSFA: (A) A SIGNED COPY OF THIS PRODUCT PROPOSAL, OR (B) A SIGNED COPY OF A PURCHASE ORDER INCORPORATING THE AGREEMENT IN ITS ENTIRETY. ANY ADDITIONAL OR DIFFERENT TERMS, WHETHER CONTAINED IN CUSTOMER’S FORMS OR OTHERWISE PRESENTED BY CUSTOMER AT ANY TIME, ARE HEREBY REJECTED AND OF NO EFFECT UNLESS APPROVED IN WRITING SIGNED BY GSFA.

COUNTERPARTS - This Product Proposal may be executed in multiple counterparts, each of which shall be deemed an original (including copies sent to a party by electronic transmission) as against the party signing such counterpart, but which together shall constitute one and the same instrument. A signed copy of this Product Proposal delivered by facsimile, email or other means of electronic transmission will be deemed to have the same legal effect as delivery of an original signed copy of this Product Proposal. If this Product Proposal is returned to GSFA with the signature of Customer’s authorized representative but without an attestation or co-signers signature, then absent Customer’s written notice to the contrary, GSFA shall be entitled to rely on such single signature as sufficient evidence of the signatory’s authority to execute the Agreement and bind Customer thereby.

INTENDING TO CREATE A BINDING AGREEMENT, Customer and GSFA have each caused this Product Proposal dated 01/02/2024, GSFA Proposal Number 30102-24B to be executed by their duly authorized representatives effective as of the Executed Date.

ACCEPTED AND AGREED TO BY CUSTOMER

Signature of Authorized Customer Representative

Print Name

Title

Date**ACCEPTED AND AGREED TO BY GSFA**

Signature of Authorized GSFA Representative

Print Name

Title

Date

2 STANDARD TERMS AND CONDITIONS

Exhibit "A"

STANDARD TERMS AND CONDITIONS

1. Definitions.

- a. **"Agreement"** has the meaning given in the Product Proposal.
- b. **"Customer"** means the customer identified in the Product Proposal.
- c. **"Dealer Preparation,"** if applicable, means additional product(s) and/or services added by GSFA after Manufacturer's completion of the Product and prior to delivery, in accordance with the Dealer Supplied Products/Services List.
- d. **"Delivery Date"** means the Product Completion timeframe plus the Predelivery Service timeframe equals the Delivery Date.
- e. **"Dealer Supplied Products/Services List"** means the Dealer Supplied Products and/or Services List attached to the Product Proposal as Exhibit D, which reflects all Dealer Preparation under the Agreement absent a valid Change Order(s).
- f. **"Grand Total Purchase Price"** means the total purchase price for the Product identified in the Product Proposal (subject to any adjustments required or permitted by these Terms and Conditions, including by the execution of a valid Change Order(s)).
- g. **"GSFA"** means Golden State Fire Apparatus, Inc., a California corporation.
- h. **"Manufacturer"** means the person or persons, company, firm, corporation, partnership, or other organization identified in the Product Proposal as responsible for manufacturing the Product.
- i. **"Party"** or **"Parties"** means GSFA and/or Customer, as applicable.
- j. **"Predelivery Service"** means the Products and/or Services that will be provided by GSFA after transportation of the Product(s) from the manufacturing facility and prior to Final Delivery or Pick-Up.
- k. **"Prepayment Discount"** means a discount to the purchase price for the Product granted to Customer in connection with Customer's advance payment of the Grand Total Purchase Price (or portion thereof, as specified in the Product Proposal).
- l. **"Product"** means the fire apparatus(es) and any associated equipment listed in the Product Proposal and further described in the Specifications.
- m. **"Product Completion"** means the fire apparatus(es) in the Product Proposal and further described in the Specifications being ready for final inspection by Customer at the manufacturing facility.
- n. **"Product Proposal"** means the GSFA proposal executed by Customer to which these Terms and Conditions are attached.
- o. **"Product Warranties"** means the Manufacturer warranties for the Product attached to the Product Proposal as Exhibit C.
- p. **"Specifications"** means the specifications for the Product attached to the Product Proposal as Exhibit B.
- q. **"Terms and Conditions"** means these Standard Terms and Conditions, which are attached to the Product Proposal as Exhibit A.

2. Purchase and Payment.

a. Purchase. Customer agrees to purchase the Product at the Grand Total Purchase Price (as such amount may be adjusted in accordance with these Terms and Conditions), pursuant to the payment terms set forth in the Product Proposal. The Grand Total Purchase Price is payable in U.S. dollars.

b. Contingency Reserve Fund. The Grand Total Purchase Price may include an amount to be set aside for the purpose of funding any future costs or financial obligations incurred by Customer under the Product Proposal or any valid Change Order(s) (the **"Contingency Reserve Fund"**). If applicable, the amount of any required Contingency Reserve Fund will be set forth in either the Product Proposal or Exhibit D. The Contingency Reserve Fund may be withdrawn against by Customer or GSFA for the purpose of satisfying Customer's payment obligations under the initial Product Proposal or any valid Change Order(s) (including, without limitation, a Change Order submitted by GSFA pursuant to Section 8.b). If a Contingency Reserve Fund is required under the Agreement, the amount of such fund is not intended as an estimate of the actual additional costs of contingencies, Change Orders, unforeseen items

or other required work that may be incurred under the Agreement after submission of the Product Proposal to Customer, which amounts Customer acknowledges may exceed the Contingency Reserve Fund amount. The balance of any Contingency Reserve Fund will be credited against Customer's payment obligations, or otherwise returned to Customer within thirty (30) calendar days of delivery of all Products under the Agreement (provided that Customer has paid all amounts owed under the Agreement as of such date).

c. Prepayment Discount. If GSFA has granted Customer a Prepayment Discount, Customer must provide each associated prepayment (each, a "**Prepayment**") within the time frame specified in the Product Proposal in order to receive such discount. Customer's failure to timely make such Prepayment may result in: (i) GSFA's termination of the Agreement; and/or (ii) Customer's loss of the Prepayment Discount for the portion of the Grand Total Purchase Price represented by such outstanding Prepayment and the application of a late fee as set forth in Section 6, in each case in GSFA's sole discretion.

d. State Sales Tax. Customer shall be responsible for the cost of state sales tax associated with, or attributable to, the Product. The taxes stated in the Product Proposal are subject to adjustment for the applicable state sales tax rate in effect at the time of delivery. Therefore, the sales tax set forth on the Product Proposal is only an estimate of such taxes and will be increased or decreased at the time of delivery if a change in the applicable sales tax rate has occurred, in which case Customer shall pay GSFA (or be refunded by GSFA) the difference in the applicable sales tax.

3. Product Completion Date. Within thirty (30) calendar days of the date on which the last required signatory executes the Product Proposal (such date, the "**Executed Date**"), GSFA shall submit to Customer a tentative Product completion date (which may differ from the Product completion estimate contained in the Product Proposal). Due to global supply chain constraints, any Product completion date contained herein, or in the Product Proposal, or otherwise provided to Customer, is a good faith estimate only as of the date provided to Customer, and merely an approximation based on current information available to GSFA and Manufacturer. Customer shall not be entitled to rely on any such estimate, and GSFA shall have no liability to Customer for a failure by GSFA or Manufacturer to meet any such estimate. All Product completion estimates are subject to modification and, if applicable, GSFA will provide updates to such estimates to Customer when available.

4. Stock / Demo Units. Notwithstanding any other provision contained in the Agreement (including Section 12 hereof concerning warranties), any Products constituting stock/demo unit(s) are sold to Customer on an as-is, first-come and first served-basis and GSFA makes no further representation or warranty to any customer with respect to such unit(s). Regardless of the terms of the Product Proposal, GSFA shall only be obligated to sell such stock/demo unit(s) to the first customer to enter into a purchase agreement with GSFA identifying such unit(s), and after the execution by GSFA of such agreement any subsequent purchase agreement (including the Agreement, as applicable) shall have no further force or effect with respect to such unit(s).

5. Multiple Unit Purchase. If the Grand Total Purchase Price includes pricing for multiple Products, the Product price stated in the Product Proposal shall only be valid if the quantity of Products being proposed are purchased at the same time, pursuant to the same Agreement. GSFA shall have no obligation to offer the same price for any Product if purchased by Customer pursuant to a later purchase agreement.

6. Late Fee; Storage Fee. A late fee equal to 0.033% of the outstanding portion of the Grand Total Purchase Price will be charged per calendar day for overdue payments beginning ten (10) calendar days after the payment is due and continuing for the first thirty (30) calendar days thereafter. After such thirty (30) calendar day period, the late fee shall increase to 0.044% per calendar day until payment of the outstanding portion of the Grand Total Purchase Price is received. If Customer is unable to satisfy the delivery requirements hereunder or is unwilling to take delivery of the Product, then GSFA shall be entitled to a storage charge running from the earlier of: (i) the date of delivery agreed to between GSFA and Customer (provided GSFA is willing and able to deliver the Product on such date), or (ii) twenty-one (21) calendar days after GSFA notifies Customer that the Product is available for delivery. The storage charge is equal to: (i) \$175.00 per calendar day per apparatus stored, or (ii) the actual charges incurred by GSFA with a third party for storage of the Product, whichever is greater. Such storage charge shall continue until the actual time

of delivery and Customer's possession of the Product, and any such storage by GSFA or such third party shall be at the sole risk of Customer.

7. Delivery; Inspection and Acceptance.

a. Delivery. Subject to Section 5 hereof, the Product is scheduled to be delivered to the location and within the time period specified in the Product Proposal. Such delivery date is an estimate, and GSFA is, notwithstanding this Section 7.a, not bound to such date unless it otherwise agrees in a separate writing to complete delivery by a date certain. For the avoidance of doubt, GSFA is not responsible for delivery delays caused by or because of actions, omissions or conduct of Customer, the Manufacturer, or their respective employees, affiliates, suppliers, contractors, and carriers. Risk of loss for the Product shall pass to Customer at the point and time of delivery (which shall include an attempted delivery by GSFA which cannot be completed due to any act of Customer). However, title to the Product shall only pass to Customer upon delivery if Customer has then fully paid GSFA all amounts due hereunder (including additional amounts due under any valid Change Order). Absent GSFA's separate written agreement, which it may or may not provide in its sole and absolute discretion, delivery of the Product will not occur before Customer has fully paid all amounts due under the Agreement and provided proof of insurance reasonably satisfactory to GSFA. If GSFA permits Customer to take possession of the Product, Customer may not mount equipment, conduct training, or place the Product into service until all amounts due under the Agreement have been paid. If Customer has ordered multiple Products, GSFA reserves the right to deliver such Products in installments and to separately invoice Customer for such Products.

b. Inspection and Acceptance. Upon delivery, Customer shall have ten (10) calendar days within which to inspect the Product for substantial conformance to the Specifications, and in the event of substantial non-conformance to the Specifications to furnish GSFA with written notice sufficient to permit GSFA to evaluate such non-conformance ("**Notice of Nonconformance to Specifications**"). Contingent upon part availability and Customer's cooperation, any Product not in substantial conformance to material Specifications shall be remedied by GSFA (by repair or replacement, at GSFA's election) within thirty (30) calendar days from GSFA's receipt of the Notice of Nonconformance to Specifications. In the event GSFA does not receive a Notice of Nonconformance to Specifications within ten (10) calendar days of delivery, the Product will be deemed to be in conformance with Specifications and accepted by Customer.

8. Changes to Agreement Terms.

a. Change Orders. The Customer may request that GSFA incorporate a change to the Product or the Specifications for the Product, or GSFA may submit changes to the Agreement required or permitted to be made by GSFA (pursuant to Section 8.b or otherwise) by delivering a written Change Order to the other party hereto, which shall include a description of the proposed change sufficient to permit the receiving party to evaluate such change (either, a "**Change Order**"). For any Change Order submitted by Customer, GSFA will provide Customer a written response (a "**Response**") stating (i) whether GSFA will accommodate such Change Order (which GSFA may decide in its sole and absolute discretion); and (ii) the terms of the modification to the order, including any increase or decrease in the Grand Total Purchase Price resulting from such Change Order, a date on which any increase in the Grand Total Purchase Price must be paid, and an estimate of any effect on production scheduling or delivery resulting from such Change Order. Customer shall have seven (7) calendar days after receipt of the Response to notify GSFA as to whether Customer desires to make the changes GSFA has approved in the Response. In the event Customer countersigns GSFA's Response, Customer shall pay the increase (or be refunded the decrease) in the Grand Total Purchase Price by the date specified in the Response. GSFA may also send Customer a Change Order to account for any changes to the Agreement required or permitted to be made by GSFA (including those changes required pursuant to Section 8.b hereof), and such Change Order shall be effective upon delivery to Customer unless Customer elects to terminate the applicable Product order under the Agreement in accordance with Section 9.

b. Additional Changes.

i. Component Price Volatility; Increases Imposed by Manufacturer. GSFA shall not be responsible for (i) any unforeseen price increase or surcharge enacted by suppliers of major components of the Product (including but not limited to commercial chassis, engine, transmission, and fire pump); or (ii) price increases imposed on GSFA by Manufacturer pursuant to Manufacturer's terms and conditions for sale of the Product (a "**Manufacturer Price Increase**"), after Customer becomes bound by the Agreement. Customer shall be responsible for all amounts arising from any price increases for major components of the Product (including all associated taxes and fees thereon) for the Product or any Manufacturer Price Increases occurring after the execution of the Agreement which increases the cost of the Product to GSFA, and such amounts will be documented on a Change Order adjusting the Grand Total Purchase Price accordingly. Customer shall pay any such price increase prior to Product delivery. A Manufacturer Price Increase may include, but shall not be limited to, an increase in Product price resulting from an increase in the Producer Price Index of Components for Manufacturing (see www.bls.gov Series ID: WPUID6112) in excess of a compounded annual growth rate of five percent (5%), as measured between the month Manufacturer accepts the applicable Product order and the month that is fourteen (14) months prior to the then-current estimated Product completion date (the foregoing, a "**PPI-Based Price Increase**"). If, upon Customer's receipt of a Change Order reflecting a PPI-Based Price Increase, Customer elects to terminate the applicable Product Order in accordance with Section 8.b.iii rather than pay such increase, then in lieu of the cancellation fees described in Section 9.a hereof GSFA shall be entitled to recover and Customer shall pay GSFA's actual non-reimbursable costs incurred in connection with the Product order through the date of Customer's termination of such Product order.

ii. New Legal Standards. In the event the Product design, materials or specifications require an alteration arising from new regulations issued by any governmental entity or trade association, including, but not limited to, the NFPA, DOT, and EPA, and such alteration increases the cost of the Product to GSFA, Customer shall be responsible for changes to the Grand Total Purchase Price arising from such alteration. GSFA shall promptly notify Customer when it becomes aware of any potential or required change in regulations occurring prior to delivery that would impact the Product purchased.

iii. Change Orders. Customer shall execute any Change Order submitted by GSFA documenting any of the changes required or permitted by Sections 8.b.i and 8.b.ii above (which shall, to the extent practicable, itemize any increases in the Grant Total Purchase Price and specify a commercially reasonable date by which Customer must pay such increase), unless Customer instead elects to terminate the applicable Product order under the Agreement within fifteen (15) calendar days of Customer's receipt of such Change Order and in accordance with Section 9. Absent such a termination, failure to execute a Change Order does not alter Customer's obligations under this Section 8.b.

c. Changes in Commercial Specifications. Specifications for all components of the Product manufactured by companies other than the Manufacturer are subject to change without notice. Specifications for such components will be as available at the time of manufacture of the Product. GSFA shall not be liable for any deviations in such specifications arising from a substitution of components or changes in the design of any component by their original manufacturer.

9. Termination.

a. By Customer. Customer may terminate a Product order identified in the Product Proposal or a Change Order by providing written notice to GSFA in accordance with Section 16 hereof. If Customer elects to terminate a Product order, Customer shall pay GSFA a cancellation fee as follows: (a) after the Product order is accepted and entered by GSFA, 10% of the portion of the Grand Total Purchase Price applicable to such Product (including all associated taxes, fees and costs) (such amount, the "**Product Purchase Price**"); (b) after completion of the pre-construction phase of the order process, 20% of the Product Purchase Price; and (c) after the requisition of any materials or commencement of any manufacturing or assembly of the Product by either GSFA or Manufacturer but before substantial completion of such Product, 50% of the Product Purchase Price. Customer shall not be permitted to terminate a Product order after substantial completion of manufacturing and assembly of such Product (excluding

any Dealer Preparation or other pre-delivery services or untypical Product customization, if applicable). Notwithstanding the foregoing, if the applicable tier of cancellation fee is not sufficient to cover all actual costs and fees incurred by GSFA with Manufacturer in connection with Customer's termination of the Product order ("**Manufacturer Termination Fees**"), then in addition to such cancellation fee Customer shall pay the balance of all Manufacturer Termination Fees. If Customer received a Prepayment Discount, such discount shall not be considered for the purpose of calculating the above cancellation fee. The tier of cancellation fee applicable to any cancellation, as well as the determination of whether a Product has reached substantial completion, shall be in the sole and absolute discretion of GSFA. Customer may request a fee waiver, and GSFA, in its sole discretion, may agree to waive and/or adjust such fee. GSFA will return the balance of the Grand Total Purchase Price or Product Purchase Price, as applicable, within thirty (30) calendar days of the effective date of the cancellation of the Product order or termination of the Agreement.

Customer may terminate the Agreement for an Event of Default by GSFA after providing GSFA with written notice in accordance with Section 16 (which notice shall describe with reasonably particularity the Event of Default justifying such termination) if such Event of Default remains uncured (if capable of cure) thirty (30) days following GSFA's receipt of such notice; provided, however, that the foregoing cure period shall continue if and for so long as GSFA has commenced and is continuing to undertake commercially reasonable efforts to cure such Event of Default as promptly as reasonably practicable.

b. By GSFA. GSFA may terminate the Agreement for an Event of Default by Customer after providing Customer with written notice in accordance with Section 16 (which notice shall describe with reasonably particularity the Event of Default justifying such termination) if such Event of Default remains uncured (if capable of cure) thirty (30) days following Customer's receipt of such notice; provided, however, that the foregoing cure period shall continue if and for so long as Customer has commenced and is continuing to undertake commercially reasonable efforts to cure such Event of Default as promptly as reasonably practicable. Notwithstanding the foregoing, GSFA may terminate the Agreement effective immediately upon written notice to Customer for Customer's failure to pay any amount owed under the Agreement when due.

Notwithstanding any other provision of this Agreement, if Customer terminates a Product order in accordance with Section 9.a above, GSFA may elect to instead terminate the Agreement upon notice to Customer in accordance with Section 16 hereof. If GSFA terminates the Agreement in accordance with this Section 9.b, Customer shall pay the applicable tier of cancellation fee for all Products pursuant to Section 9.a above as if Customer had elected to terminate each applicable Product order.

c. Based on Discontinuation or Cancellation by Manufacturer. In the event that Manufacturer cancels a Product order (provided that such cancellation is not the result of an act by Customer in violation of the Agreement) or discontinues the manufacture of a Product prior to its completion and delivery: (i) if such Product is the only Product contemplated under the Agreement, then the Agreement shall terminate; or (ii) if additional Products are contemplated under the Agreement, then only the Product order for the applicable cancelled or discontinued Product shall be terminated. Such Agreement termination or Product termination, as applicable, shall be effective upon GSFA's written notice to Customer of such cancellation or discontinuance in accordance with Section 16 hereof. GSFA's only obligation to Customer in such event shall be the return of any Prepayment paid by Customer for the cancelled or discontinued Product. For the avoidance of doubt, the cancellation fees contemplated in Section 9.a hereof shall not apply in the event of a termination pursuant to this Section 9.c.

10. Customer's Obligations. Customer shall provide its timely and best efforts to cooperate with GSFA and Manufacturer during the Product manufacturing process. Reasonable and timely cooperation includes, without limitation, Customer's providing timely information in response to any requests from Manufacturer or GSFA and the participation of Customer's authorized representatives in traveling to Manufacturer's facility for inspections and approval of the Product, including a final approval before the Product leaves Manufacturer's facility.

11. Representations and Warranties. Customer hereby represents and warrants to GSFA as of the Executed Date that the execution of the Agreement and the purchase of the Product(s) and performance of the other obligations

of Customer under the Agreement have been approved by Customer in accordance with applicable general laws and, as applicable, Customer's charter, ordinances, purchasing policies, and other governing documents, and executed by the appropriate Customer employees, officials, and/or representatives, and funding for Customer's performance of its obligations under the Agreement has been duly budgeted and appropriated by Customer.

12. Standard Warranty. All applicable Manufacturer warranties are contained in the Product Warranties. Any additional warranties must be expressly approved in a writing signed by GSFA, and Customer acknowledges and agrees that Manufacturer will not be liable for any such additional warranties.

a. Disclaimer. OTHER THAN AS EXPRESSLY SET FORTH IN THE AGREEMENT, GSFA, ITS AFFILIATES, AND THEIR RESPECTIVE OFFICERS, DIRECTORS, EMPLOYEES, SHAREHOLDERS, AGENTS, OR REPRESENTATIVES, DO NOT MAKE ANY EXPRESS OR IMPLIED WARRANTIES WITH RESPECT TO THE PRODUCT (WHETHER RELATING TO THE CONDITION OR QUALITY OF THE PRODUCT, OR OTHERWISE) PROVIDED HEREUNDER OR OTHERWISE REGARDING THE AGREEMENT (INCLUDING, WITHOUT LIMITATION, WITH RESPECT TO ANY APPLICABLE DEALER PREPARATION), WHETHER ORAL OR WRITTEN, EXPRESS, IMPLIED OR STATUTORY. WITHOUT LIMITING THE FOREGOING, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY, THE IMPLIED WARRANTY AGAINST INFRINGEMENT, THE IMPLIED WARRANTY OR CONDITION OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY IMPLIED WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE ARE EXPRESSLY EXCLUDED AND DISCLAIMED. STATEMENTS MADE BY SALES CONSULTANTS OR IN PROMOTIONAL MATERIALS DO NOT CONSTITUTE WARRANTIES.

b. Exclusions of Incidental and Consequential Damages. In no event shall GSFA be liable for consequential, incidental, or punitive damages incurred by Customer in connection with any matter arising out of or relating to the Agreement, or the breach thereof, even if GSFA has been advised of the possibility of such damages, and regardless of whether such damages arise out of breach of warranty, the Agreement, indemnity, whether resulting from non-delivery or from GSFA's own negligence, or otherwise, except and solely to the extent such damages arise from the gross negligence or willful misconduct of GSFA.

13. Default. The occurrence of one or more of the following events (each, an "**Event of Default**") shall constitute a default under the Agreement: (a) Customer's failure to pay any amounts due or to perform any of its obligations under the Agreement; (b) GSFA's failure to perform any of its obligations under the Agreement; (c) either Party becoming insolvent or becoming subject to bankruptcy or insolvency proceedings; (d) any representation made by either Party under the Agreement which is false in any material respect; (e) any action by Customer to dissolve, merge, consolidate or transfer a substantial portion of its property to another entity during the term of the Agreement; (f) any other material breach of the terms of the Agreement by a Party; or (g) a default or breach by Customer under any other agreement with GSFA or its affiliates.

14. Indemnification of GSFA. Customer shall indemnify, defend, and hold harmless GSFA, its agents, servants, successors and assigns from and against all losses, damages, injuries, claims, demands and expenses, including attorneys' fees and other legal expenses, of whatever nature ("**Damages**"), to the extent Damages arise out of or in connection with: (i) Customer's breach of the Agreement, or (ii) Customer's use, storage, or operation of the Product following delivery, regardless of where, how, and by whom operated (excluding any negligent operation by GSFA). The indemnification and assumptions of liability and obligation herein provided shall continue in full force and effect notwithstanding the termination of the Agreement, whether by expiration of time, by operation of law or otherwise. This provision is not intended to and shall not constitute the exclusive remedy of the Parties under the Agreement; the Parties may seek indemnity from one another under other legal principles, whether based in equity or law, so long as they do not nullify or cancel the effects of this paragraph.

15. Force Majeure. GSFA shall not be responsible nor deemed to be in default of any provision of the Agreement on account of delays in performance due to causes which are beyond GSFA's or Manufacturer's control and which make GSFA's performance impracticable, including but not limited to wars, insurrections, strikes or labor unrest, riots, fires, storms, floods, other acts of nature, explosions, earthquakes, accidents, any act of federal, state or local government, failure or delays in transportation, inability to obtain necessary labor, supplies or manufacturing facilities, supply chain issues, allocation regulations or orders affecting materials, equipment, facilities or completed

products, failure to obtain any required license or certificates, acts of God or the public enemy or terrorism, failure of transportation, disease, pandemics or epidemics, quarantine restrictions, failure of vendors (due to causes similar to those within the scope of this clause) to perform their agreements or labor troubles causing cessation, slowdown, or interruption of work.

16. Notice. Any notices, requests, consents, claims, demands, waivers and other communications required or permitted to be given hereunder must be given in writing at the address of each Party set forth below, or to such other address as either Party may substitute by written notice to the other in accordance with this Section 16, by one of the following methods: hand delivery; registered, express, or certified mail, return receipt requested, postage prepaid; or nationally recognized private express courier. All such communications will be deemed to have been given: (i) when delivered by hand (with written confirmation of receipt); (ii) on the third (3rd) calendar day after the date mailed, by registered, express or certified mail; or (iii) when delivered by the addressee if sent by a nationally recognized private express courier.

GSFA:

Golden State Fire Apparatus Inc.
7400 Reese Road
Sacramento, CA 95828

CUSTOMER:

To the address listed in the Product Proposal

17. Contradictions. In the event of a conflict between the Agreement and any Change Order, or between Change Orders, the terms of the latest executed Change Order shall control.

18. Manufacturer's Statement of Origin. It is agreed that the manufacturer's statement of origin ("**MSO**") for the Product covered by the Agreement, if applicable, shall be retained and remain in the possession of GSFA per California Department of Vehicles (DMV) directives. Notwithstanding the foregoing, GSFA shall provide Customer with the original MSO if the Customer is self-registering, and Customer shall comply with all good-faith Process of Duty and other DMV requirements applicable to the Product and retain its own MSO.

19. Assignment. The relationship of the Parties established under the Agreement is that of independent contractors and neither Party is a partner, employee, agent, or joint venturer of or with the other. Neither Party may assign its rights and obligations under the Agreement unless it has obtained the prior written approval of the other Party.

20. Governing Law; Jurisdiction; Disputes. Without regard to any conflict of laws provisions, the Agreement is to be governed by and under the laws of the state of California. Prior to taking any legal action that may and/or can arise out of the Agreement, the Parties shall first attempt mediation with an agreed upon mediator. If the Parties cannot agree upon a mediator within thirty (30) calendar days of the submission of written notice of a dispute in accordance with Section 16 hereof, if any disputed matter remain unresolved within thirty (30) calendar days of the commencement of discussions, or if any party refuses to meet, then either party may submit any remaining disputes concerning and/or claim regarding the Agreement and/or the terms and conditions herein to the Superior Court, County of Sacramento (and the parties expressly consent to exclusive personal jurisdiction and venue before such court).

21. Entire Agreement; Amendments. The Agreement, including the Product Proposal, its exhibits, and all valid Change Orders, is the exclusive agreement between the Parties regarding the subject matter contained herein and therein. No change in, modification of, or revision of the Agreement shall be valid unless in writing and signed by duly authorized representatives of both Parties with authority to sign such amendments to the Agreement.

END OF STANDARD TERMS AND CONDITIONS



3 PRODUCT SPECIFICATIONS

Exhibit "B"



Proposal Details Report

1/2/2024

Customer: HANFORD FIRE
DEPARTMENT
Representative Young, Dewayne

Bid Number: 952

Requirements Manager:
Description: Hanford FD (Duplicate 41417)
Chassis: Impel Chassis, PUC-NG
Body: Pumper, PUC, Aluminum

Job Number:
Organization: Golden State Fire Apparatus, Inc

OptionCode	Type	Option
0766589		Boiler Plates, PUC Pumper

ProposalText

Golden State Fire Apparatus is pleased to submit a proposal to City of Hanford 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 applicable NFPA 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 and certified to meet the American welding Society codes upon hire and every three (3) years thereafter. Pierce also employs and 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 the current edition of applicable NFPA standards acceleration and braking requirements.

SERVICE AND WARRANTY SUPPORT

Pierce dealership support will be provided by Golden State Fire EVS by operating in conjunction with 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.

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.
0661794	Single Source Compliance	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.
0584456	Manufacture Location, Appleton, Wisconsin	Your apparatus will be manufactured in Appleton, Wisconsin.
0584452	RFP Location: Appleton, Wisconsin	
0588609	Vehicle Destination, US	
0610784	Comply NFPA 1901 Changes Effective Jan 1, 2016, With Exceptions	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 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.
0533347	Pumper/Pumper with Aerial Device Fire Apparatus	
0588611	Vehicle Certification, Pumper	
0661778	Agency, Apparatus Certification, Pumper/Tanker, U.L.	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". PUMP TEST Underwriters Laboratory (UL) will test, approved, 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, approved, 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, <i>Standard on Breathing Air Quality for Fire and Emergency Services Respiratory Protection</i>.

0891947	Certification, Vehicle Inspection Program, NFPA 1901	VEHICLE INSPECTION PROGRAM CERTIFICATION To assure the vehicle is built to current NFPA 1901 standards, the apparatus, in its entirety, will be third-party, independent, audit-certified through Underwriters Laboratory (UL) that it is built and complies to all applicable standards in the current edition. The certification includes: 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.
0766110	Consortium, Sourcewell	
0537375	Unit of Measure, US Gallons	
0030006	Bid Bond Not Requested	BID BOND NOT REQUESTED A bid bond will not be included. If requested, the following will apply: All bidders will provide a bid bond as security for the bid in the form of a 5% bid bond to accompany their bid. 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. 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.
0816571	Performance Bond, 100% with 25% Warranty Bond, 1 Yr, and Payment Bond, PPI Terms	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 25 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. Due to global supply chain constraints, any delivery date contained herein is a good faith estimate as of the date of this order/contract, and merely an approximation based on current information. Delivery updates will be made available, and a final firm delivery date will be provided as soon as possible. If the Producer Price Index of Components for Manufacturing [www.bls.gov Series ID: WPUID6112] ("PPI") has increased at a compounded annual growth rate of 5.0% or more between the month Pierce accepts the order ("Order Month") and a month 14 months prior to the then predicted Ready For Pickup date ("Evaluation Month"), then pricing may be updated in an amount equal to the increase in PPI over 5.0% for each year or fractional year between the Order Month and the Evaluation Month. The seller will document any such updated price for the customer's approval before proceeding and provide an option to cancel the order.
0000007	Approval Drawing	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. 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.
0002928	Electrical Diagrams	ELECTRICAL WIRING DIAGRAMS Two (2) electrical wiring diagrams, prepared for the model of chassis and body, will be provided.

0889131	Impel Chassis, PUC-NG	IMPEL CHASSIS The Pierce Impel® 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 and 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.
0000110	Wheelbase	WHEELBASE The wheelbase of the vehicle will be 177.00 inches.
0000070	GVW Rating	GVW RATING The gross vehicle weight rating will be 46,500 pounds.
0000203	Frame Rails, 13.38 x 3.50 x .375, Qtm/AXT/Imp/Vel/DCF	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.
0020018	Frame Liner Not Req'd	
0508848	Axle, Front, Oshkosh TAK-4, Non Drive, 19,500 lb, Imp/Vel	FRONT NON DRIVE AXLE The Oshkosh TAK-4® front axle will be of the independent suspension design with a ground rating of 19,500 lb. Upper and lower control arms will be used on each side of the axle. Upper control arm castings will be made of 100,000-psi yield strength 8630 steel and the lower control arm casting will be made of 55,000-psi yield ductile iron. The center cross members and side plates will be constructed out of 80,000-psi yield strength steel. Each control arm will be mounted to the center section using elastomer bushings. These rubber bushings will rotate on low friction plain bearings and be lubricated for life. Each bushing will also have a flange end to absorb longitudinal impact loads, reducing noise and vibrations. There will be nine (9) grease fittings supplied, one (1) on each control arm pivot and one (1) on the steering gear extension. The upper control arm will be shorter than the lower arm so that wheel end geometry provides positive camber when deflected below rated load and negative camber above rated load. Camber at load will be 0 degrees for optimum tire life. The ball joint bearing will be of low friction design and be maintenance free. Toe links that are adjustable for alignment of the wheel to the center of the chassis will be provided. The wheel ends must have little to no bump steer when the chassis encounters a hole or obstacle. The steering linkage will provide proper steering angles for the inside and outside wheel, based on the vehicle wheelbase. The axle will have a turning angle of up to 45 degrees.
0030264	Suspension, Front TAK-4, 19,500 lb, Qtm/AXT/Imp/Vel/Enf/SFR	FRONT SUSPENSION Front Oshkosh TAK-4™ independent suspension will be provided with a minimum ground rating of 19,500 lb. The independent suspension system will be designed to provide maximum ride comfort. The design will allow the vehicle to travel at highway speeds over improved road surfaces and at moderate speeds over rough terrain with minimal transfer of road shock and vibration to the vehicle's crew compartment. Each wheel will have torsion bar type spring. In addition, each front wheel end will also have energy absorbing jounce bumpers to prevent bottoming of the suspension. The suspension design will be such that there is at least 10.00" of total wheel travel and a minimum of 3.75" before suspension bottoms. The torsion bar anchor lock system allows for simple lean adjustments, without the use of shims. One can adjust for a lean within 15 minutes per side. Anchor adjustment design is such that it allows for ride height adjustment on each side. The independent suspension was put through a durability test that simulated 140,000 miles of inner city driving.
0087572	Shock Absorbers, KONI, TAK-4, Qtm/AXT/Imp/Vel/DCF/Enf	FRONT SHOCK ABSORBERS KONI heavy-duty telescoping shock absorbers will be provided on the front suspension.
0000322	Oil Seals, Front Axle	FRONT OIL SEALS Oil seals with viewing window will be provided on the front axle.

0887447	Tires, Front, Michelin, X Multi HL Z , 385/65R22.50, Fire Service Speed Rtnng	FRONT TIRES The front tires will be Michelin 385/65R22.50 radials, load range L, X Multi HL Z tread, rated for 22,000 lb maximum axle load and 75 mph maximum speed.
0019611	Wheels, Front, Alcoa, 22.50" x 12.25", Aluminum, Hub Pilot	The tires will be mounted on Alcoa 22.50" x 12.25" polished aluminum disc type wheels with a ten (10)stud, 11.25" bolt circle.
0530465	Axle, Rear, Meritor RS25-160, 27,000 lb, Imp/Vel/Dash CF	REAR AXLE The rear axle will be a Meritor™, Model RS-25-160, with a capacity of 27,000 lb.
0814718	Top Speed of Vehicle, 72 MPH/116 KPH, Non-NFPA 2016	TOP SPEED OF VEHICLE NFPA 1901, 2016 edition requires limits on the top speed of vehicles. NFPA 4.15.2 requires that the maximum top speed of fire apparatus with a GVWR over 26,000 lb will not exceed either 68 mph / 109 kph or the manufacturer's maximum fire service speed rating for the tires installed on the apparatus, whichever is lower. NFPA 4.15.3 requires that if the combined water tank and foam agent tank on the fire apparatus exceed 1250 gallons or the GVWR of the vehicle is over 50,000 lb, the maximum top speed of the apparatus will not exceed either 60 mph / 96 kph or the manufacturer's maximum fire service speed rating for the tires installed on the apparatus, whichever is lower. It is the intention of the standard to improve safety by limiting the speed of all apparatus to 68 mph / 109 kph , and tankers or heavy apparatus to 60 mph / 96 kph. By requesting an exception to this requirement, the purchasing authority is consciously choosing to operate their apparatus at speeds above the limits designated as safe speeds by the NFPA Technical Committee on Fire Department Apparatus. The top sped of the apparatus as manufactured exceeds the NFPA requirements. Per fire department specification of a top speed that exceeds NFPA requirements, the apparatus will be non-compliant to NFPA 1901 standards at time of contract execution. The rear tires being specified have a top speed limit of 72 mph / 116 kph from the tire manufacturer.
0122075	Suspen, Rear, Standens, Spring, 27,000 lb, Imp/Vel	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.
0000485	Oil Seals, Rear Axle	REAR OIL SEALS Oil seals will be provided on the rear axle(s).
0031836	Tires, Rear, Michelin, XZE*, 12R22.50, 16 ply, Single	REAR TIRES Rear tires will be four (4) Michelin 12R22.50 radials, 16 ply "all position" XZE* tread, rated for 27,120 lb maximum axle load and 75 mph maximum speed.
0019625	Wheels, Rear, Alcoa, 22.50" x 8.25", Aluminum, Hub Pilot, Single	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.
0568081	Tire Balancing, Counteract Beads	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.
0620570	Tire Pressure Monitoring, RealWheels, AirSecure, Valve Cap, Single Axle	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.
0801909	Lug Nut, Covers, Chrome	CHROME LUG NUT COVERS Chrome lug nut covers will be supplied on front and rear wheels.
0003245	Axle Hub Covers w/center hole, S/S, Front Axle	FRONT HUB COVERS Stainless steel hub covers will be provided on the front axle. An oil level viewing window will be provided.

0001960	Axle Hub Covers, Rear, S/S, High Hat (Pair)	REAR HUB COVERS A pair of stainless steel high hat hub covers will be provided on rear axle hubs.
0012045	Mud Flap, Rear, Pierce Logo	MUD FLAPS Mud flaps with a Pierce logo will be installed behind the rear wheels.
0544802	Chocks, Wheel, SAC-44-E, Folding, (Up to 44" Diameter Tires)	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.
0544806	Mounting Brackets, Chocks, SAC-44-E, Folding, Horizontal	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 one (1) forward and one (1) rearward of the left side rear tire.
0593760	ESC/ABS/ATC Wabco Brake System, Single Rear Axle, 2010	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 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.
0030185	Brakes, Knorr/Bendix 17", Disc, Front, TAK-4	BRAKES The service brake system will be full air type. The front brakes will be Knorr/Bendix disc type with a 17.00" ventilated rotor for improved stopping distance. The brake system will be certified, third party inspected, for improved stopping distance.
0000730	Brakes, Meritor, Cam, Rear, 16.50 x 7.00"	The rear brakes will be Meritor™ 16.50" x 7.00" cam operated with automatic slack adjusters. Dust shields will be provided.
0020784	Air Compressor, Brake, Cummins/Wabco 18.7 CFM	BRAKE SYSTEM AIR COMPRESSOR The air compressor will be a Cummins/WABCO with 18.7 cubic feet per minute output.

0000785	Brake Reservoirs, Three	BRAKE SYSTEM The brake system will include: Bendix® dual brake treadle valve Heated automatic moisture ejector on air dryer Total air system capacity of 4,362 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 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 valve on each air tank The air tank will be primed and painted to meet a minimum 750 hour salt spray test. The air tanks will be same as frame color . To reduce the effects of corrosion, the air tank will be mounted with stainless steel brackets.
0568012	Air Dryer, Wabco System Saver 1200, Heater, 2010	BRAKE SYSTEM AIR DRYER The air dryer will be WABCO System Saver 1200 with spin-on coalescing filter cartridge and 100 watt heater.
0000790	Brake Lines, Nylon	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.
0000854	Air Inlet, w/Disconnect Coupling	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.
0000810	All Wheel Lock-up	ALL WHEEL LOCK-UP An all wheel lock-up system will be installed which will apply air to the front brakes and use the spring brake at the rear. A control switch will be provided for the driver on the instrument panel.
0808533	Engine, Cummins X10, 450 hp, 1250 lb-ft, W/OBD, EPA 2027, Imp/Vel	ENGINE The chassis will be powered by an electronically controlled engine as described below: Make: Cummins Model: X10 Power: 450 hp at 2100 rpm Torque: 1250 lb-ft at 1400 rpm Governed Speed: 2200 rpm Emissions Level: EPA 2027 Fuel: Diesel Cylinders: Six (6) Displacement: 606 cubic inches (9.9L) Starter: Delco 39MT™ Fuel Filters: Spin-on style primary filter with water separator and water-in-fuel sensor. Secondary spin-on style filter. 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.
0811409	Not Required, Engine Contingency Adjustment	

0001244	High Idle w/Electronic Engine, Custom	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."
0687994	Engine Brake, Jacobs Compression Brake, Cummins Engine	ENGINE BRAKE A Jacobs® engine brake is to be installed with the controls located on the instrument panel within easy reach of the driver. The driver will be able to turn the engine brake system on/off and have a high, medium and low setting. The engine brake will activate when the system is on and the throttle is released. The high setting of the brake application will activate and work simultaneously with the variable geometry turbo (VGT) provided on the engine. The engine brake will be installed in such a manner that when the engine brake is slowing the vehicle the brake lights are activated. The ABS system will automatically disengage the auxiliary braking device, when required.
0552334	Clutch, Fan, Air Actuated, Horton Drive Master	CLUTCH FAN A Horton® fan clutch will be provided. The fan clutch will be automatic when the pump transmission is in "Road" position, and fully engaged in "Pump" position.
0037145	Heater, 1000 watt Immersion, Connect to Shoreline	ENGINE HEATER A 1000 watt, 120 volt, immersion type engine heater with thermostat will be installed. The engine heater will be wired to the shoreline and be active whenever the shoreline is connected.
0123135	Air Intake, w/Ember separator, Imp/Vel	ENGINE AIR INTAKE An air intake with an ember separator (to prevent road dirt, burning embers, and recirculating hot air from entering the engine) will be mounted at the front of the apparatus, on the passenger side of the engine. The ember separator will be mounted in the air intake with flame retardant, roto-molded polyethylene housing. It will be easily accessible by the hinged access panel at the front of the vehicle.
0814375	Exhaust System, Horizontal, Right Side	EXHAUST SYSTEM The exhaust system will be stainless steel from the turbo to the engine's aftertreatment device. The exhaust system will include an aftertreatment device to meet current EPA standards. An insulation wrap will be provided on all exhaust pipe between the turbo and the aftertreatment device to minimize the transfer of heat to the cab. The exhaust will terminate horizontally ahead of the right side rear wheels and will be flush with the body rub rail . The exhaust pipes will be stainless steel. There will be a stainless steel exhaust diffuser reduced to 4.00" in the center to accommodate the fire department's air recovery system with a standard straight tip on the end 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.
0787999	Radiator, Impel/Velocity	RADIATOR The radiator and the complete cooling system will meet or exceed the current edition of applicable 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 core will be made of aluminum fins, having a serpentine design, brazed to aluminum tubes. The tubes will be brazed to aluminum headers. The radiator core will have a minimum frontal area of 1434 square inches. Supply tank made of glass-reinforced nylon and a return tank of cast aluminum alloy will be crimped on to the core assembly using header tabs and a compression gasket to complete the radiator core assembly. The radiator will be compatible with commercial antifreeze solutions. There will be a full steel frame around the entire radiator core assembly. The radiator core assembly will be isolated within the steel frame by rubber inserts to enhance cooling system durability and reliability. The radiator will be mounted in such a manner as to prevent the development of leaks caused by twisting or straining when the apparatus operates over uneven ground. The radiator assembly will be isolated from the chassis frame rails with rubber isolators. The radiator assembly will include an integral de-aeration tank permanently mounted to the top of the radiator framework, with a readily accessible remote-mounted overflow 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. 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. A heavy-duty fan will draw in fresh, cool air through the radiator. Shields or baffles will be provided to prevent recirculation of hot air to the inlet side of the radiator.

0803675	Cooling Hoses, Gates Silicone and Rubber Combination, Impel	COOLANT LINES Gates® silicone or a combination of silicone and rubber hoses will be used for the radiator and cab heater hoses installed by the chassis manufacturer. The chassis manufacturer will also use Gates® brand hose on other heater and auxiliary coolant circuits. There will be some areas in which an appropriate Gates product is not available. In those instances a comparable silicone hose from another manufacturer will be used. Rubber hoses will be used for the overhead defrost/heater system only in the drain tubes of the cab. Hose clamps will be stainless steel constant torque type to prevent coolant leakage. They will react to temperature changes in the cooling system and expand or contract accordingly while maintaining a constant clamping pressure on the hose.
0001125	Fuel Tank, 65 Gallon, Left Side Fill	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.
0001129	Lines, Fuel	All fuel lines will be provided as recommended by the engine manufacturer.
0582182	DEF Tank, 4.5 Gallon, DS Fill, Rear of Rear Axle, Common Door	DIESEL EXHAUST FLUID TANK A 4.5 gallon diesel exhaust fluid (DEF) tank will be provided and mounted in the driver's side body rearward of the rear axle. A 0.50" drain plug will be provided in a low point of the tank for drainage. A fill inlet will be provided and marked "Diesel Exhaust Fluid Only". The fill inlet will be located adjacent to the engine fuel inlet behind a common hinged, spring loaded, polished stainless steel door on the driver side of the vehicle. 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.
0723716	Fuel Priming Pump, Electronic, Automatic, Cummins, No Swt Req'd	FUEL PRIMING PUMP A Cummins automatic electronic fuel priming pump will be integrated as part of the engine.
0582243	Shutoff Valves, Fuel Line @ Primary Filter, Cummins	FUEL SHUTOFF A fuel line shutoff valve will be installed on both the inlet and outlet of the primary fuel filter.
0699437	Cooler, Chassis Fuel, Not Req'd.	
0690880	No Selection Required From This Category	
0887559	Trans, Allison 6th Gen, 3000 EVS P, w/Prognostics, Imp/Vel/SFR/Enf	TRANSMISSION An Allison 6th generation, Model EVS 3000P, 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. Two (2) PTO openings will be located on both sides of converter housing (positions 4 o'clock and 8 o'clock) as viewed from the rear. A transmission temperature gauge with amber light and audible alarm will be installed on the cab dash.

0625329	Transmission, Shifter, 5-Spd, Push Button, 3000 EVS	TRANSMISSION SHIFTER A five (5)-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 3.49 to 1.00 2nd 1.86 to 1.00 3rd 1.41 to 1.00 4th 1.00 to 1.00 5th 0.75 to 1.00 R 5.03 to 1.00
0517604	Transmission Programming, Park to Neutral, PUC	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.
0684459	Transmission Oil Cooler, Modine, External	TRANSMISSION COOLER A Modine plate and fin transmission oil cooler will be provided using engine coolant to control the transmission oil temperature.
0001370	Driveline, Spicer 1710	DRIVELINE Drivelines will be a heavy-duty metal tube and be equipped with Spicer® 1710 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.
0669988	Steering, Sheppard M110 w/Tilt, TAK-4, Eaton Pump, w/Cooler	STEERING Dual Sheppard, Model M110, steering gears, with integral heavy-duty power steering, will be provided. For reduced system temperatures, the power steering will incorporate an air to oil cooler and an Eaton, Model VN20, 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.
0001544	Not Required, Steering Assist Cylinder on Front Axle	
0509229	Steering Wheel, 2 Spoke	STEERING WHEEL The steering wheel will be 18.00" in diameter, have tilting and telescoping capabilities, and a 2-spoke design.
0550144	Logo/Emblem, on Horn Button	LOGO AND CUSTOMER DESIGNATION ON HORN BUTTON The steering wheel 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: HANFORD The second row of text will be: FIRE The third row of text will be: DEPARTMENT
0123622	Bumper, 10" Extended, Imp/Vel	BUMPER A one (1)-piece, stainless steel bumper, minimum of 10.00" high, will be attached to the front of the frame. A 9.00" channel will be mounted directly behind the bumper for additional strength. The bumper will be extended 10.00" 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.
0510226	Lift & Tow Package, Imp/Vel, AXT, Dash CF	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.

0005739	Tow Eyes, Chrome, Chicago Style, Top of Deck	TOW EYES Two (2) Chicago style tow eyes will be mounted through the top of the bumper extension. 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 inner and outer edges of the tow eyes will have a .25" radius. The tow eyes will be chrome plated.
0668316	Cab, Impel FR, 7010 Raised Roof, PUC	CAB The Impel cab will be designed specifically for the fire service and will be manufactured by Pierce Manufacturing. To provide quality at the source and single source customer support, 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 of 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 0.25" heavy wall extrusions joined by a solid A356-T6 aluminum joint casting. The B-pillar and C-pillar will also be constructed from 0.25" heavy wall extrusions. The rear wall will be constructed of two (2) 4.00" x 2.00" outer aluminum extrusions and two (2) 3.00" x 2.00" inner aluminum extrusions. All main vertical structural members will run from the floor to 7.50" x 3.50" x 0.125" thick roof extrusions to provide a cage-like structure with the A-pillar and roof extrusions being welded into a 0.75" thick corner casting at each of the front corners of the roof assembly. The front of the cab will be constructed of a 0.25" thick firewall, covered with a 0.125" front skin (for a total thickness of 0.38"), and reinforced with 24.50" wide x 10.00" deep x 0.50" thick supports on each side of the engine tunnel. The cross-cab support will be welded to the A-pillar, 0.25" firewall, and engine tunnel, on the left and right sides. The cab floors will be constructed of 0.1875" thick aluminum plate and reinforced at the firewall with an additional 0.25" thick cross-floor support providing a total thickness of 0.44" of structural material at the front floor area. The front floor area will also be supported with three (3) 0.50" plates bolted together that also provides the mounting point for the cab lift. This tubing will run from the front of the cab to the 0.1875" thick engine tunnel, creating the structure to support the forces created when lifting the cab. The cab will be a full-tilt style. A 3-point cab mount system with rubber isolators will improve ride quality by isolating chassis vibrations from the cab. 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 forward cab section will have an overall height (from the cab roof to the ground) of approximately 102.00". The crew cab section will have a 10.00" raised roof, with an overall cab height of approximately 112.00". The raised portion will start at the most forward point of the B-pillar and continue rearward to the back of the cab. The overall height listed will be calculated based on a truck configuration with the lowest suspension weight ratings, 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. The cab will have an interior width of not less than 93.50". The driver and passenger seating positions will have a minimum 24.00" clear width at knee level. To reduce injuries to occupants in the seated positions, proper head clearance will be provided. The floor-to-ceiling height inside the forward cab will be no less than 60.25". The floor-to-ceiling height inside the crew cab will be no less than 62.95" in the center position and 68.75" in the outboard positions. The crew cab will measure a minimum of 57.50" from the rear wall to the backside of the engine tunnel (knee level) for optimal occupant legroom. 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. FENDER LINERS Full-circular, aluminum inner fender liners in the wheel wells will be provided. PANORAMIC WINDSHIELD A one (1)-piece, safety glass windshield with more than 2,802 square inches of clear viewing area will be provided. The windshield will be full width and will provide the occupants with a panoramic view. The windshield will consist of three (3) layers: the outer light, the middle safety laminate, and the inner light. The 0.114" thick 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. WINDSHIELD WIPERS Three (3) electric windshield wipers with a washer, in conformance with FMVSS and SAE requirements, will be provided. The wiper blades will be 21.65" long and together will clear a minimum of 1,783 square inches of the windshield for maximum visibility in inclement weather. The windshield washer fluid reservoir will be located at the front of the vehicle and be accessible through the access hood for simple maintenance. FAST SERVICE ACCESS FRONT TILT HOOD A full-width access hood will be provided for convenient access to engine coolant, steering fluid, wiper fluid, cab lift controls, headlight power modules, and ember separator. The hood will also provide complete access to the windshield wiper motor and components. The hood will be contoured to provide a sleek, automotive appearance. The hood will be constructed of two (2) fiberglass panels bonded together and will include reinforcing ribs for structural integrity. The hood will include air cylinders to hold the hood in open and closed positions, and a heavy duty latch system that will meet FMVSS 113 (Hood Latch System). The spring-loaded hood latch will be located at the center of the hood with a double-action release lever located behind the Pierce logo. The two (2)-step release requires the lever first be pulled to the driver side until the hood releases from the first latch (primary latch) then to the passenger side to fully release the hood (secondary latch).

0724237	Engine Tunnel, ISL, Mech Fasteners, Impel/Velocity FR	ENGINE TUNNEL To provide structural strength, the engine tunnel sidewalls will be constructed of 0.50" aluminum plate that is welded to both the 0.25" firewall and 0.38" heavy wall extrusion under the crew cab floor. To maximize occupant space, the top edges will be tapered. The back of the engine tunnel will be no higher than 16.25" off the crew cab floor. The engine hood will be insulated for protection from heat and sound. Perforated foil faced insulation will be over a 1.00" thick closed cell foam affixed with pressure sensitive adhesive and further secured with mechanical fasteners. Thermal rating for this insulation will be -40 degrees Fahrenheit to 300 degrees Fahrenheit. The noise insulation keeps the dBA level within the limits stated in the current edition of applicable NFPA standards.
0887600	Cab Insulation, Impel/Velocity FR	INTERIOR CAB INSULATION The cab will include 1.50" insulation in the ceiling, 3.00" insulation in the side walls, and 2.00" insulation in the rear wall to maximize acoustic absorption and thermal insulation.
0677478	Rear Wall, Exterior, Cab, Aluminum Treadplate	CAB REAR WALL EXTERIOR COVERING The exterior surface of the rear wall of the cab will be overlaid with bright aluminum treadplate except for areas that are not typically visible when the cab is lowered.
0122465	Cab Lift, Elec/Hyd, Imp/Vel	CAB LIFT A hydraulic cab lift system will be provided, consisting of an electric-powered hydraulic pump, fluid reservoir, dual lift cylinders, remote cab lift controls and all necessary hoses and valves. The cab lift controls will be located at the driver side front of the cab, easily accessible under the full width front access hood. The controls will include a permanently mounted raise/lower switch. For enhanced visibility during cab tilt operations, a remote control tether with on/off switch will be supplied on a coiled cord that will extend from 2.00' (coiled) to 6.00' (extended). The cab will be capable of tilting 42 degrees and 80 degrees with crane assist to accommodate engine maintenance and removal. The cab pivots will be located 46.00" apart to provide stability while tilting the cab. The rear of the cab will be locked down by a two (2)-point, automatic, hydraulic, double hook mechanism that fully engages after the cab has been lowered (self-locking). The dual 2.25" diameter hydraulic cylinders will be equipped with a velocity fuse that protects the cab from accidentally descending when the cab is in the tilt position. For increased safety, a redundant mechanical stay arm will be provided that must be manually put in place on the driver side between the chassis and cab frame when 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 safety 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.
0803676	Grille, Bright Finished, Front of Cab, Impel	GRILLE A bright finished aluminum mesh grille screen, inserted behind a formed bright finished grille surround, will be provided on the front center of the cab, and will serve as an air intake to the radiator.
0002224	Scuffplates, S/S At Cab Door Jambs, 4-Door Cab	DOOR JAMB SCUFFPLATES All cab door jambs will be furnished with a 1.00" polished stainless steel scuffplate, mounted on the striker side of the jamb.
0527034	Trim, S/S Band, Across Cab Face, Rect Lights, Impel	FRONT CAB TRIM A band of 22 gauge polished stainless steel trim will be installed across the front of the cab, from door hinge to door hinge. The trim band will be centered on the head lights and applied with two (2)-sided tape. A 0.625" self adhesive trim strip will be applied around the perimeter of the trim band. There will be polished stainless steel corner covers provided over the painted cab corner where the cab turn signals are located.
0015440	No Chrome Molding, On side of cab	
0032189	Mirrors, Ramco, 8000PCHR, Heated/Remote, w/Heated/Remote Convex, Door Mount	MIRRORS One (1) Ramco, Model 8000-PCHR, polished aluminum mirror will be mounted on each of the cab doors. 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.

0667942	Door, Half-Height, Impel FR 4-Door Cab, Raised Roof	CAB DOORS The forward cab and crew cab doors will be the half-height style door. To enhance entry and egress to the cab, the forward cab doors will be a minimum of 43.59" wide x 64.71" high. The crew cab doors will measure a minimum of 37.87" wide x 73.75" high. The forward cab and crew cab doors will be constructed of extruded aluminum with a nominal material thickness of 0.125". The exterior door skins will be constructed from 0.090" aluminum. The forward cab door windows will include a 7.50" high x 10.00" wide drop area at the front to enhance visibility. 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. 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. 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 and crew cab door. 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 below the cab doors and will be exposed to the exterior of the cab.
0655511	Door Panel, Brushed Stainless Steel, Impel/Veloccity 4-Door Cab	Door Panels The inner cab door panels will be constructed out of brushed stainless steel. The cab door panels will be removable.
0667905	Storage Pockets w/ Elastic Cover, Recessed, Overhead, Impel/Veloccity FR	RECESSED POCKET WITH ELASTIC COVER To provide organized storage (clutter control) in the cab for miscellaneous equipment, the cab interior will be provided with recessed storage pockets. The pockets will be 5.63" wide x 2.00" high x 4.00" deep. The pockets will be provided with a perforated elastic material cover to secure the equipment in the pocket. The pockets will be installed in all available mounting locations of the overhead console.
0667902	Controls, Electric Windows, All Cab Doors, Impel/Veloccity FR	ELECTRIC WINDOW CONTROLS Each cab entry door will be equipped with an electrically operated tempered glass window. A window control panel will be located on the door panel within easy reach of the respective occupant. Each switch will allow intermittent or auto down operation for ease of use. Auto down operation will be actuated by holding the window down switch for approximately 1 second. The driver control panel will contain a control switch for each cab door's window. All other door control panels will contain a single switch to operate the window within that door. The window switches will be connected directly to the battery power. This allows the windows to be raised and lowered when the battery switch is in the off position.
0512419	Electric Door Locks, Cab Doors, Imp/Vel	ELECTRIC CAB DOOR LOCKS The front driver and passenger doors will have a door lock master switch (custom designed rotary lock knob) built into the interior door latch that will control all front and rear side exit door locks. Each rear cab door will have its own lock control. Each door will have a keyed exterior lock mechanism built into the door handle assembly. There will be one (1) concealed switch on the exterior of the cab, located under the front full width service access panel, that operates the cab door locks. The lock system will include two (2) key FOBs that allow for keyless entry into the vehicle. The key FOB system will use code hopping technology for high security and be FCC part 15 compliant.
0512420	Key Pad, Electric Door locks, DS & PS, Imp/Vel	KEY PAD FOR ELECTRIC DOOR LOCKS For improved convenience, the cab door locks will include a Trimark keypad entry system to provide complete keyless entry to the cab. There will be two (2) keypads provided, located one each side of the cab behind the front cab doors. The keypads will include visual and audio feedback to confirm activation and acknowledge correct entry code. For enhanced night time use, the keypads will be lighted. For increased security, the system will allow over 3000 possible code combinations.
0555485	Steps, 4-Door Full Tilt Cab, Imp/Vel	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 31.00" wide, and the crew cab steps will be 24.25" wide with an 8.00" minimum depth. The inside cab steps will not exceed 18.00" in height and be limited to two (2) steps.

0770200	Handrail, Exterior, Hansen, Knurled, Alum, LED Backlit, 4-Door Cab	CAB EXTERIOR HANDRAILS A Hansen knurled aluminum handrail will be provided adjacent to each cab and crew cab door opening to assist during cab ingress and egress. Each handrail will be provided with red LED lights. The lights will be activated when the parking brake is applied. The LED lights may be load managed.
0892637	Lights, Cab & Crw Cab Acs Stps, P25, LED w/Bezel, 1Lt Per Step	STEP LIGHTS There will be four (4) white P25 LED step lights provided. The lights will be installed at each cab and crew cab door, one (1) per step. The lights will be located in the driver side front doorstep, driver side crew cab doorstep, passenger side front doorstep and passenger side crew cab doorstep. In order to ensure exceptional illumination, each light will provide a minimum of 25 foot-candles (fc) covering an entire 15.00" x 15.00" square placed 10.00" below the light and a minimum of 1.5 fc covering an entire 30.00" x 30.00" square at the same 10.00" distance below the light. The light(s) will have a chrome housing. The lights will be activated when the adjacent door is opened.
0002140	Fenders, S/S on Cab	FENDER CROWNS Stainless steel fender crowns will be installed at the cab wheel openings.
0592071	No Windows, Side of Crew Cab, Vel/Imp	
0568605	Not Required, Interior Trim, No Cab Side Windows	
0012090	Not Required, Windows, Front/Side of raised roof	
0603142	Windows, Rear CC, (2) 11.25" x 18", Impel	WINDOWS, REAR The rear wall of the crew cab will have two (2) windows, each being 11.25" wide x 18.00" high.
0553197	Not Required, Trim, Cab Rear Windows, Impel	
0786278	Window Tint, Crew Cab Door, Right Side, Medium Gray	RIGHT SIDE ROLLUP CREW CAB DOOR WINDOW TINT The rollup window in the right side crew cab door will be tinted medium gray.
0786289	Window Tint, Crew Cab Door, Left Side, Medium Gray	LEFT SIDE ROLLUP CREW CAB DOOR WINDOW TINT The rollup window in the left side crew cab door will be tinted medium gray.
0123686	Drip Rail, Cab Roof, Impel/Velocity/Veloccity SLT	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 constructed of bright polished extruded aluminum, and be bonded to the sides of the cab. The drip rail will extend the full length of the cab roof.
0079144	Inserts, Screws, For All Cab Door Panels	SCREW INSERTS ON CAB DOORS All removable panels for the cab and crew cab doors will be mounted with nylon inserts. Self tapping screws will not be used.
0798684	Work Surface, 3/16" Alum, Full Engine Tunnel, Vel/Imp FR	WORK SURFACE There will be a work surface provided on the engine tunnel. The work surface will be flat. It will not follow the engine tunnel angles. The work surface will cover the entire engine tunnel and will be constructed of 0.19" aluminum to allow for the mounting of equipment. The work surface will start to the rear of the center instrument panel and finish at the end of the engine tunnel. The work surface will be painted to match the cab interior.

0748680	Cab Interior, Vinyl, Painted Walls, Imp/Vel FR, CARE	CAB INTERIOR With safety as the primary objective, the wrap-around style cab instrument panel will be designed with unobstructed visibility to instrumentation. The dash layout will provide the driver with a quick reference to gauges that allows more time to focus on the road. The center console will be a high impact ABS polymer and will be easily removable. The passenger side dashboard will be constructed of painted aluminum for durability and low maintenance. For enhanced versatility, the passenger side dash will include a flat working surface. To provide optional (service friendly) control panels, switches and storage modules, a painted aluminum overhead console will also be provided. To complete the cab front interior design, painted aluminum modesty panels will be provided under the dash on both sides of the cab. The driver side modesty panel will provide mounting for the battery switch and diagnostic connectors, while the passenger side modesty panel provides a glove box, and ground access to the main electrical distribution panel via quick quarter turn fasteners. To provide a deluxe automotive interior, the engine tunnel will be covered by leather grain vinyl that is 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. The headliner panel will be a composition of an aluminum panel covered with a sound barrier and upholstery. The cab structure will include designated raceways for electrical harness routing from the front of the cab to the rear upper portion of the cab. Raceways will be extruded in the forward door frame, floor, walls and overhead in the area where the walls meet the ceiling. The raceways located in the floor will be covered by aluminum extrusion, while the vertical and overhead raceways will be covered by painted aluminum covers. The raceways will improve harness integrity by providing a continuous harness path that eliminates wire chafing and abrasion associated with exposed wiring or routing through drilled metal holes. Harnesses will be laid in place. CAB INTERIOR UPHOLSTERY The cab interior upholstery will be 36 oz dark silver gray vinyl. All cab interior materials will meet FMVSS 302 (flammability of interior materials).
0667943	Cab Interior, Paint Color, Impel/Velocisty FR	CAB INTERIOR PAINT The following metal surfaces will be painted black, vinyl textured paint: - Modesty panel in front of driver - Vertical surface of dash in front of the officer (not applicable for recessed dash) - Glove box in front of the officer (if applicable) - Power distribution in front of the officer - Rear heater vent panels The remaining cab interior metal surfaces will be painted fire smoke gray, vinyl texture paint.
0509532	Floor, Rubber Padded Cab & Crew Cab, Imp/Vel, Dash CF	CAB FLOOR The cab and crew cab floor areas will be covered with Polydamp™ acoustical floor mat consisting of a black pyramid rubber facing and closed cell foam decoupler. The top surface of the material has a series of raised pyramid shapes evenly spaced, which offer a superior grip surface. Additionally, the material has a 0.25" thick closed cell foam (no water absorption) which offers a sound dampening material for reducing sound levels.

0741239	HVAC, Heavy-Duty, Impel/Velocity FR, CARE	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 the left side rear facing seat riser with a dual scroll blower. An aluminum plenum incorporated into the cab structure used to transfer heat to the forward left side position. Air Conditioning A 19.10 cubic inch compressor will be installed on the engine. A roof-mounted condenser with a 78,000 BTU output at 2,400 SCFM that meets and exceeds the performance specification will be installed on the cab roof. The condenser cover to be painted to match the cab roof. 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 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 evaporator cover per the following: 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. 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. 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. The drain tubes will terminate under the cab, on the inboard side of the front wheelwells.
0627910	Sun Visor, Vinyl/Fabric, Imp/Vel	SUN VISORS There will be two (2) vinyl covered sun visors provided. The sun visors will be located above the windshield with one (1) mounted on each side of the cab. There will be a black plastic thumb latch provided to help secure each sun visor in the stowed position.
0548173	Grab Handles, Driver and Passenger Door Post, Imp/Vel	GRAB HANDLE A black rubber covered grab handle will be mounted on the door post of the driver side and passenger side cab door to assist in entering the cab. The grab handle will be securely mounted to the post area between the door and windshield.
0002526	Light, Engine Compt, All Custom Chassis	ENGINE COMPARTMENT LIGHT An engine compartment light will be installed under the engine hood, of which the switch is an integral part. Light will have a .125" diameter hole in its lens to prevent moisture retention.
0122516	Fluid Check Access, Imp/Vel	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 door will be flush with the wall of the engine tunnel. The engine oil dipstick will allow for checking only. The transmission dipstick will allow for both checking and filling. An additional port will be provided for filling the engine oil. The door will have a rubber seal for thermal and acoustic insulation. One (1) flush lift and turn latch will be provided on the access door.

0002508	Map Box, 3 Bin/30 deg Slant, Custom Chassis	MAP BOX There will be one (1) map box(es) with three (3) bins, open at top. The map box(es) will be installed at final inspection. The map box(es) will be divided into three (3) bins, each being 12.50" wide x 3.00" high x 12.00" deep. Each bin will slant 30 degrees from horizontal. The map box(es) will be constructed of 0.125" aluminum and will be painted to match the cab interior.
0583039	Not Required, Side Roll and Frontal Impact Protection	
0622619	Seating Capacity, 4 Seats	SEATING CAPACITY The seating capacity of the vehicle (including tiller cab and belted seat positions in the rescue body) will be four (4).
0697009	Seat, Driver, Pierce PS6, Base, Air Ride, High Back	DRIVER SEAT A Pierce PS6® seat will be provided in the cab for the driver. The seat will be a cam action type, with air suspension. For increased convenience, the seat will include manual controls to adjust the height (1.12" travel) and horizontal (6.00" travel) position. 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 a reclining back adjustable from 20 degrees back to 45 degrees forward. The seat back will be a high back style, and will include minimum 7.50" deep side bolster pads for maximum support. For optimal comfort, the seat will be provided with 17.00" deep foam cushions. The seat will be furnished with a 3-point, shoulder type seat belt. The seat belt will be furnished with dual automatic retractors that will provide ease of operation in the normal seating position.
0696995	Seat, Officer, Pierce PS6, Premium, Air Ride, SCBA	OFFICER SEAT A Pierce, PS6® seat will be provided in the cab for the officer. The seat will be a cam action type, with air suspension. For increased convenience, the seat will include 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. For optimal comfort, the seat will be provided with 17.00" deep dual density foam cushions designed with EVC (elastomeric vibration control). To ensure safe operation, the seat 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. The seat back will be an SCBA back style with 7.50 degree fixed recline angle, and will include minimum 4.50" wide x 7.50" deep side bolster pads for maximum support. The SCBA cavity will be adjustable from front to rear in 1.00" increments, to accommodate different sized SCBA cylinders. Moving the SCBA cavity will be accomplished by unbolting, relocating, and re-bolting it in the desired location. The seat will be furnished with a 3-point, shoulder type seat belt. The seat belt will be furnished with dual automatic retractors that will provide ease of operation in the normal seating position.
0002517	Not Required, Radio Compartment	
0765628	Cabinet, Rear Facing, LS, 24 W x 38 H x 30.5 D, Radius, Ext Acc, Imp/Vel	REAR FACING LEFT SIDE CABINET A rear facing cabinet will be provided in the crew cab at the left side outboard position with interior and exterior access. The cabinet will be 24.00" wide x 38.00" high x 30.50" deep with one (1) Gortite rollup door with satin anodized finish, non-locking, radius track style. That is, it will travel over the top and down the back of the cabinet. Front top corners of the cabinet will be radiused. This will allow access through the front and top section of the cabinet. A shield will be installed to keep items in this cabinet from falling into the door tracking area and jamming the door. The frame to frame opening will be 19.25" wide x 37.75" high. The minimum clear door opening will be 16.50" wide x 35.25" high. 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 also provide exterior access with one (1) double pan door painted to match the cab exterior with a locking D-ring latch with #751 key. A pneumatic stay arm will be provided as a door stop. The clear door opening will 19.75" wide x 35.50" high. The exterior access will be provided with a brushed stainless steel scuffplate on the lower door frame. The cabinet will be constructed of smooth aluminum and painted to match the cab interior. Cabinet Light There will be one (1) white Amdor LED strip light installed on the left side of the exterior cabinet door opening. The lights will be controlled by an automatic door switch.
0102783	Not Required, Seat, Rr Facing C/C, Center	

0752582	Cabinet, Rear Facing, RS, 21.5 W x 38 H x 26.5 D, Radius, Ext Acc, Imp/Vel	REAR FACING RIGHT SIDE CABINET A rear facing cabinet will be provided in the crew cab at the right side outboard position. The cabinet will be 21.50" wide x 38.00" high x 26.50" deep with one (1) Gortite rollup door with satin anodized finish, non-locking, radius track style. That is, it will travel over the top and down the back of the compartment. Front top corners of the compartment will be radiused. This will allow access through the front and top section of the compartment. A shield will be installed to keep items in this cabinet from falling into the door tracking area and jamming the door. The frame to frame opening will be 16.75" wide x 37.75" high. The minimum clear door opening of the cabinet will be 14.00" wide x 35.25" high. 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 also provide access from outside the cab with one (1) double pan door painted to match the cab exterior with a locking D-ring latch with #751 key. A pneumatic stay arm will be provided as a door stop. The exterior clear door opening will be 14.50 wide x 35.50" high. The door will be located on the side of the cab over the wheelwell. The exterior access will be provided with a brushed stainless steel scuffplate on the lower door frame. The cabinet will be constructed of smooth aluminum and painted to match the cab interior. Cabinet Light There will be one (1) white Amdor LED strip light installed on the right side of the exterior cabinet door opening. The lights will be controlled by an automatic door switch.
0108189	Not Required, Seat, Forward Facing C/C, DS Outboard	
0123167	Seat, Forward Facing C/C, Center, (2) Pierce PS6, Premium, SCBA	FORWARD FACING CENTER SEATS There will be two (2) forward facing, Pierce PS6® seats provided at the center position in the crew cab. For optimal comfort, the seats will be provided with 17.00" deep dual density foam cushions designed with EVC (elastomeric vibration control). 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. The seat backs will be an SCBA back style with 7.5 degree fixed recline angle, and will include minimum 4.50" wide x 7.50" deep side bolster pads for maximum support. The SCBA cavity will be adjustable from front to rear in 1.00" increments, to accommodate different sized SCBA cylinders. Moving the SCBA cavity will be accomplished by unbolting, relocating, and re-bolting it in the desired location. The seats will be furnished with 3-point, shoulder type seat belts. The seat belts will be furnished with dual automatic retractors that will provide ease of operation in the normal seating position.
0108190	Not Required, Seat, Forward Facing C/C, PS Outboard	
0766467	Upholstery, Seats In Cab, All Vinyl, Seats Inc, CARE	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.
0511657	Bracket, Air Bottle, Zico, ULLH, Load & Lock, Cab Seats, Imp/Vel/Qtm	AIR BOTTLE HOLDERS All SCBA type seats in the cab will have a Ziamatic, Model ULLH, SCBA holder bracket. This bracket will be compliant with the current edition of applicable NFPA standards and will include a back plate, two (2) seats, a footplate and a Model LLS (Load & Lock) strap to hold the bottle in the bracket. The bracket seats will be a "one size fits all" style seat and will accommodate SCBA cylinders from the high pressure 30-minute to the high pressure 60-minute. The bracket seats will be adjustable up and down by unbolting, relocating, and re-bolting in the desired position.
0025527	Inserts, Back Rest for PS6, PSV, 911 SCBA Seats, (New Style)	Provided with the SCBA seats, will be backrest inserts which cover the SCBA cavity. The insert cover will be padded and covered with the same material as the seat. A total of three (3) inserts will be provided all cab SCBA seats. The seat back insert is designed to support the firefighters back, with or without the SCBA bottle in place. The insert is held in place with two (2) elastic cords.
0603867	Seat Belt, ReadyReach	SEAT BELTS All seating positions in the cab, crew cab and tiller cab (if applicable) 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 applicable NFPA and CAN/ULC - S515 standards. The 3-point shoulder type seat 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.
0604863	Seat Belt Height Adjustment, 6 Seats, Imp/Vel, Dash CF	SHOULDER HARNESS HEIGHT ADJUSTMENT All seating positions furnished with 3-point shoulder type seat belts will include a height adjustment. This adjustment will optimize the belts effectiveness and comfort for the seated firefighter. A total of six (6) seating positions will have the adjustable shoulder harness.

0543133	Bracket, Helmet Holder, Zico UHH-1	HELMET HOLDER There will be a total of four (4) Zico, Model UHH-1, helmet holder bracket(s) provided in the cab. The brackets will provide secure storage and quick access to each helmet. The location of the helmet holder bracket(s) will be determined at the time of final inspection.
0647647	Lights, Dome, FRP Dual LED 4 Lts	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.
0896451	Enhanced Software for Cab and Crew Cab Dome Lts	ENHANCED SOFTWARE FOR CAB AND CREW CAB DOME LIGHTS The cab and crew cab dome lights will remain on for 10 seconds for improved visibility after the doors are closed. The dome lights will dim after 10 seconds or immediately if the vehicle's transmission is put into gear.
0628472	Light, Map, Overhead, Peterson M371S LED, Rectangular w/Switch 2lts	OVERHEAD MAP LIGHTS There will be two (2) Peterson, Model M371S, rectangular LED adjustable map lights installed in the cab: One (1) overhead in front of the driving position. One (1) overhead in front of the passenger's position. Each light will include a switch on the light housing. The light switches will be connected directly to the battery switched power.
0732083	SP Handlts, (2) Streamlight Stinger HL 75432 kit, 12v, Charging Holder	HAND HELD LIGHT There will be two (2) 12v Streamlight, Stinger Model 75432, kits with lights mounted TBD at Pre-con. Each kit to include a light and charger mount.
0594554	Cab Instruments, Blk Gags, Blk Bez, Impel 2010	CAB INSTRUMENTATION The cab instrument panel will consist of gauges, an LCD display, telltale indicator lights, alarms, control switches, and a diagnostic panel. The function of 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 directly forward of the driver. Gauge and switch panels will be designed to be removable for ease of service and low cost of ownership. Gauges The gauge panel will include the following ten (10) black gauges with black bezels to monitor vehicle performance: Voltmeter gauge (Volts) Low volts (11.8 VDC) Amber indicator on gauge assembly with alarm High volts (15 VDC) Amber indicator on gauge assembly with alarm Very low volts (11.3 VDC) Amber indicator on gauge assembly with alarm Very high volts (16 VDC) Amber indicator on gauge assembly with alarm Tachometer (RPM) Speedometer (Primary (outside) MPH, Secondary (inside) Km/H) Fuel level gauge (Empty - Full in fractions) Low fuel (1/8 full) Amber indicator on gauge assembly with alarm Very low fuel (1/32) fuel Amber indicator on gauge assembly with alarm Engine oil pressure gauge (PSI) Low oil pressure to activate engine warning lights and alarms Red indicator on gauge assembly with alarm Front air pressure gauge (PSI) Low air pressure to activate warning lights and alarm Red indicator on gauge assembly with alarm Rear air pressure gauge (PSI) Low air pressure to activate warning lights and alarm Red indicator on gauge assembly with alarm Transmission oil temperature gauge (Fahrenheit) High transmission oil temperature activates warning lights and alarm Amber indicator on gauge assembly with alarm Engine coolant temperature gauge (Fahrenheit) High engine temperature activates an engine warning light and alarm Red indicator on gauge assembly with alarm Diesel Exhaust Fluid Level Gauge (Empty - Full in fractions) Low fluid (1/8 full)

Amber indicator on gauge assembly with alarm

All gauges and gauge indicators will perform prove out at initial power-up to ensure proper performance.

Indicator Lamps

To promote safety, the following telltale indicator lamps will be integral to the gauge assembly and are located above and below the center gauges. 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)

SRS (supplemental restraint system) fault (where applicable)

DEF (low diesel exhaust fluid level)

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.

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

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.

Emergency master switch: A molded plastic push button switch with integral indicator lamp will be provided. Pressing the switch will activate emergency response lights and siren control. A green lamp on the switch provides indication that the emergency master mode is active. Pressing the switch again disables the emergency master mode.

Headlight / Parking light switch: A three (3)-position maintained rocker switch will be provided. The first switch position will deactivate all parking lights and the headlights. The second switch position will activate the parking lights. The third switch position will activate the headlights.

Panel backlighting intensity control switch: A three (3)-position momentary rocker switch will be provided. The first switch position decreases the panel backlighting intensity to a minimum level as the switch is held. The second switch position is the default position that does not affect the backlighting intensity. The third switch position increases the panel backlighting intensity to a maximum level as the switch is held.

The following standard controls will be integral to the gauge assembly and are located below the right hand gauges. All switches have backlit labels for low light applications.

High idle engagement switch: A two (2)-position momentary rocker switch with integral indicator lamp will be provided. The first switch position is the default switch position.

The second switch position will activate and deactivate the high idle function when pressed and released. 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.

The following standard controls will be provided adjacent to the cab gauge assembly within easy reach of the driver. All switches will have backlit labels for low light applications.

Ignition switch: A three (3)-position maintained/momentary rocker switch will be provided. The first switch position will deactivate vehicle ignition. The second switch position will activate vehicle ignition. The third momentary position will disable the Command Zone audible alarm if held for three (3) to five (5) seconds. A green indicator lamp will be activated with vehicle ignition.

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.
 4-way hazard switch: A two (2)-position maintained rocker switch will be provided. The first switch position will deactivate the 4-way hazard switch function. The second switch position will activate the 4-way hazard function. The switch actuator will be red and includes the international 4-way hazard symbol.
 Heater, defroster, and air conditioning control panel.
 Turn signal arm: A self-canceling turn signal with high beam headlight and windshield wiper/washer controls will be provided. The windshield wiper control will have high, low, and intermittent modes.

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.

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 overhead console on the driver's side, up to four (4) switch panels in the engine tunnel console facing the driver, up to four (4) switch panels in the overhead console on the officer's side and up to two (2) switch panels in the engine tunnel console facing the officer. All switches will have backlit labels for low light applications.

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 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

SRS diagnostic port (where applicable)

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 odometer, trip mileage, PTO hours, fuel consumption, engine hours, and other configuration specific information. 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.

0509511 Air Restriction Indicator, Imp/Vel, AXT, Dash CF, Enf MUX

AIR RESTRICTION INDICATOR

A high air restriction warning indicator light LCD message with amber warning indicator and audible alarm will be provided.

0543751 Light, Do Not Move Apparatus

"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 not activate any alarm when the parking brake is released.

0509042	Messages, Open Dr/DNMT, Color Dsply,	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). 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.
0611681	Switching, Cab, Membrane, Impel/Velocity/Quantum, Dash CF, AXT WiFi MUX	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. Documentation will be provided by the manufacturer indicating the rated cycle life of the switches. The switch panel(s) will be located in the overhead position above the windshield on the driver side overhead to allow for easy access. 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.
0555915	Wiper Control, 2-Speed with Intermittent, MUX, Impel/Velocity	WIPER CONTROL For simple operation and easy reach, the windshield wiper control will be an integral part of the directional light lever located on the steering column. The wiper control will include high and low wiper speed settings, a one (1)-speed intermittent wiper control and windshield washer switch. The control will have a "return to park" provision, which allows the wipers to return to the stored position when the wipers are not in use.
0548004	Wiring, Spare, 15 A 12V DC 1st	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 15 amps at 12 volts DC Power and ground will terminate one (1) on the officer side of the wraparound dash facing the passenger side in switch panel #9 and one (1) on the upper left of the the rear wall of the engine tunnel facing the crew cab" (Match Job 26797) 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.
0548006	Wiring, Spare, 15 A 12V DC 2nd	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 For flashlights, Location TBD at pre-con. 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.

0548009	Wiring, Spare, 20 A 12V DC 1st	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 20 amps at 12 volts DC Power and ground will terminate "(2) to area behind passenger seat. (Match Job 26797) Termination will be with 3/8" studs and plastic covers Wires will be sized to 125% of the protection This circuit(s) may be load managed when the parking brake is set.
0548013	Wiring, Spare, 20 A 12V DC 2nd	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 20 amps at 12 volts DC. Power and ground will terminate (1) to area behind driver seat, one and (1) to rear DS corner of the work surface. Termination will be with 3/8" studs and plastic covers. Wires will be sized to 125 percent of the protection. This circuit(s) may be load managed when the parking brake is set.
0787001	Wiring, Spare, 4.8 A 12V DC, USB Termination Blue Sea 1045 2nd	SPARE CIRCUIT There will be two (2) dual USB fast charge socket mounts 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 4.8 amps at 12 volts DC. The USB socket mount will be Crew Cab Area - TBD at Pre-con. Termination will be a Blue Sea Systems part number 1045 dual USB charger socket. Wires will be sized to 125% of the protection. This circuit(s) may be load managed when the parking brake is applied.
0797189	Wiring, Spare, 4.8 A 12V DC, USB Termination Blue Sea 1045 1st	SPARE CIRCUIT There will be two (2) dual USB fast charge socket mounts 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 4.8 amps at 12 volts DC. The USB socket mount will be Cab Area, see dash layout. Termination will be a Blue Sea Systems part number 1045 dual USB charger socket. Wires will be sized to 125% of the protection. This circuit(s) may be load managed when the parking brake is applied.
0655679	Remote Control, Wired, Programmable 3 Button	PROGRAMMABLE REMOTE CONTROL There will be a wired remote control integrated into the switch panel panel position A of the approved dash layout. The remote will have three (3) individually programmable buttons for most garage door openers, and gate operators as well as the capability of controlling many lighting and security systems.
0819994	Radio, Jensen, AM/FM/WB, Bluetooth	STEREO RADIO There will be one heavy duty AM/FM / Weatherband / Bluetooth stereo radio. The radio will be installed per switch panel layout. There will be 5.25" speakers installed one (1) pair of 5.25" speakers in the cab and one (1) pair of 5.25" speakers in the crew cab. The antenna will be a side-mounted rubber antenna located on the left side of the cab. The following Jensen features will be included: - 180 watts max power (45W x 4); 100 watts RMS (25W x 4) - Bluetooth® streaming audio (A2DP/AVRCP) - Weatherband - AM/FM tuner with 30 presets - Audio settings (volume/bass/treble/balance/fade) - Toggle switch between day and night display - Daylight-readable, segmented LCD - Two-wire power with non-volatile memory and clock support - Low battery alert
0814601	Vehicle Information Center,LCD On Gauge Cluster,7" Clr Disp,Touchscrn,Imp,CL714	INFORMATION CENTER An LCD display integral to the cab gauge panel will be included as outlined in the cab instrumentation area. ADDITIONAL INFORMATION CENTER An information center employing a 7.00" diagonal touch screen color LCD display will be encased in an ABS plastic housing and will be located on the in view of the driver per the instrument panel layout diagram. The information center will have the following specifications: Operate in temperatures from -40 to 158 degrees Fahrenheit LCD Optically bonded to hardened AR glass 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.
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 equipped)
Foam Level (if equipped)
Seat Belt Monitoring Screen
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
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
Water 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 indicate
 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)
 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 Information (if equipped)
 Button functions and button labels may change with each screen.

0816633 Collision Mitigation, HAAS Alert (R2V), HA7

COLLISION MITIGATION

There will be a HAAS Alert®, Model HA7 Responder-to-Vehicle (R2V) collision avoidance system provided on the apparatus. The HA7 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 HA7 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 HA7 transponder sends road hazard alerts to motorists in the vicinity of the truck that are equipped with the WAZE app.

The HA7 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.

0606247	Vehicle Data Recorder w/CZ Display Seat Belt Monitor	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 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 Internal clock syncs the time and date when a laptop is connected. 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.
0699542	Intercom, Sigtronics US-67D, 7-Pos, 3-Dual Radio, D,O,4C,P	INTERCOM SYSTEM A seven (7) position Sigtronics, Model US-67D, intercom system with dual radio interface capability at the driver, officer, and pump panel will be provided. Four (4) crew cab positions at two (2) forward facing seats and two (2) rearward facing seats will have intercom and radio listen capabilities. System includes: - One (1) US-67D Intercom system that includes the following: - Six (6) Interior Headset jacks in blue boxes - One (1) Exterior Headset jack in blue box with splash cover (Pump panel) - Three (3) Radio Push-to-Transmit buttons in blue boxes (Driver, officer and pump panel) All necessary cabling
0022898	Cable, Radio to Intercom Interface, Sigtronics, 2 Radios	RADIO / INTERCOM INTERFACE CABLES The apparatus manufacturer will supply and install two (2) radio interface cables before delivery of the vehicle. The radio equipment to be used by the customer will be: - Motorola Mid Power , Model XL2500 - Motorola Mid Power , Model XL2500
0568105	Headset, Sigtronics, SE-8 Under Helmet, Flex Mic, Standard	HEADSET, UNDER HELMET There will be four (4) Sigtronics, Model SE-8, under helmet, standard headset(s) provided driver, officer, and two crew. Each headset will feature: - Coiled cord with single nickel coated plug - Noise cancelling electret microphone with wind muff - Flexible microphone boom rotates 180 degrees for left or right dress - Gel filled earseals - Volume control 24 dB noise reduction
0681408	Hangers For Headsets, NFPA, Each	HEADSET HANGERS There will be four (4) headset hanger(s) installed driver's seat, officer's seat, passenger's side inboard forward 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.
0559508	Install Customer Provided Two-Way Radio Remote Head Cable	TWO-WAY RADIO CABLE INSTALLATION There will be two (2) customer supplied two-way radio remote head cable(s) sent to the apparatus manufacturers preferred radio installer for installation. The cable will be run behind the officer seat, remote heads installed per instrument panel layout locations #4 and #5 sirtronics in location #6. Specific shipping requirements will be followed.

0597940	Install Customer Provided Two-Way Radio Speaker(s)	TWO WAY RADIO SPEAKER INSTALLATION There will be two (2) customer supplied two way radio speakers sent to the apparatus manufacturers preferred third party installer to be installed inverted from the ceiling on the drivers and officers side as marked by the customer.. Specific shipping requirements will be followed.
0696438	Antenna Mount, Custom Chassis, Cable Routed to Radio Box	RADIO ANTENNA MOUNT There will be two (2) standard 1.125", 18 thread antenna-mounting base(s) installed one (1) each side on the cab roof 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.
0696439	Antenna Mount, Custom Chassis, Cable Routed to Instrument Panel Area	RADIO ANTENNA MOUNT There will be two (2) standard 1.125", 18 thread antenna-mounting base(s) installed On the Cab Roof on the cab roof with high efficiency, low loss, coaxial cable(s) routed to the instrument panel area. A weatherproof cap will be installed on the mount.
0817058	Camera, Pierce, LS Mux, R Camera, SD, CL714	VEHICLE CAMERA SYSTEM There will be a color vehicle camera system provided with the following: One (1) Standard Definition (SD) camera located at the rear of the apparatus, pointing rearward, displayed automatically with the vehicle in reverse. The camera images will be displayed on the left side 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 All necessary cables
0814831	Not Required, Camera Switcher	CAMERA SWITCHER A camera switcher is not required.
0523921	Recess, Rear Vision Camera	RECESS REAR CAMERA A rear camera recess will be provided in the center at the rear .
0890427	Pierce Command Zone, Advanced Electronics & Control System, Impel, WiFi CZT	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, electronic control modules to include a see through housing, a power indicator, a status indicator and circuit indicators 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 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 32 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

The 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

TCU 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 communicate through a white WiFi antenna 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 if equipped.

The TCU capability will record faults from the engine, transmission, ABS, electrical control and information systems as they occur. No other data will be recorded at the time the fault occurs.

The TCU will provide up to 2 Gigabytes of data storage.

It will provide a means to download TCU 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.

Dedicated Radio Equipment Connection Points

There will be three (3) studs provided in the primary power distribution center located in front of the officer for two-way radio equipment.

The studs will consist of the following:

12-volt 40-amp battery switched power

12-volt 60-amp ignition switched power

12-volt 60-amp direct battery power

There will also be a 12-volt 100-amp ground stud located in or adjacent to the power distribution center.

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, 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, 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. 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 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.

0896456

Prognostics, Electrical System

ELECTRICAL SYSTEM PROGNOSTICS

There will be a software based vehicle tool provided to predict remaining life of the vehicles critical fluid and events.

The system will send automatic indications to the Command Zone™ information center and/or wireless enabled devices to proactively alert of upcoming service intervals.

Prognostics will include the following:

Engine oil and filter

Transmission oil and filter

0816093	ClearSky Telematics, Remote Fleet & On-scene Management, AT&T Commercial	TELEMATICS SYSTEM Your vehicle will include a cellular-based vehicle telematics system including a telematic control unit with external cellular Wi-Fi and GPS antenna. Pierce will provide access to a web-based user interface portal that will allow users to access vehicle data collected as part of the system, allow users to configure monitoring tools, provide a global view of the location of each vehicle that has the system, provide a summary of fleet data, etc. The web-based user interface portal or certain features thereof may be provided on a subscription basis. The telematic control unit will be fully integrated into the electrical system of the vehicle, will monitor the vehicle through the CAN data bus, and will transmit data through a secure AT&T 4G LTE cellular connection, and be provided with a 3 year subscription.. The web-based user interface portal will provide, among other features: - User defined interval notifications - User defined fault alerts - Remote access to Command Zone™ diagnostics - Vehicle analytics and activity monitoring - Vehicle system status The system is activated while building your vehicle and thereafter remains active for a 60-day grace period starting when your vehicle ships from the factory. This means that the system is active at the time of factory acceptance and during the 60-day grace period. By selecting this option, it is agreed that use of the system and the web-based user interface portal will be subject to the terms set forth in the Data Systems Agreement referenced at https://www.piercemfg.com/privacy-statement. Customers will be provided with an initial login at the time of factory acceptance to verify performance of the system and the web-based user interface portal. The term of the subscription, if any, will begin when the vehicle ships from the factory. If customers do not log into the web-based user interface portal and confirm acceptance of the terms before the 60-day grace period ends, the system will be deactivated, and no new data will be collected or retained Pierce. Reactivation can be coordinated through the customer's authorized Pierce Dealer.
0730601	Electrical System, Impel ESP, Cummins, Paccar	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: - 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. - 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. - 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. - 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). - All lights that have their sockets in a weather exposed area will have corrosion preventative compound added to the socket terminal area. - All electrical terminals in exposed areas will have silicon 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.
0079212	Batteries, (6) Stryten/Exide Grp 31, 950 CCA each, SAE Posts	BATTERY SYSTEM Six (6) 12 volt, Stryten/Exide, Model 31A950X1W, group 31 batteries that include the following features will be provided: 950 CCA, cold cranking amps 190 amp reserve capacity - High cycle - Rating of 5700 CCA at 0 degrees Fahrenheit 1140 minutes of reserve capacity - SAE Posts 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.

0008621	Battery System, Single Start, All Custom Chassis	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.
0123174	Battery Compartment, Imp/Vel	BATTERY COMPARTMENTS The batteries will be stored in well-ventilated compartments that are located under the cab and bolted directly to the chassis frame. The battery compartments will be constructed of 3/16" steel plate and be designed to accommodate a maximum of three (3) group 31 batteries in each compartment. The compartments will include formed fit heavy-duty roto-molded polyethylene battery tray inserts with drains on each side of the frame rails. The batteries will be mounted inside of the roto-molded trays. JUMPER STUDS One (1) set of battery jumper studs with plastic color-coded covers will be installed on the battery box on the driver's side. This will allow enough room for easy jumper cable access.
0816197	Charger, Sngl Sys, Kussmaul, LPC 80, 091-206-12-194C-WT-XX	BATTERY CHARGER There will be a Kussmaul, Model LPC 80, part number 091-206-12-194C-WT-XX, 80 amp 12 volt DC battery charger with part number 091-194-provided. There will be a, Model 091-194X-IND-WT-XX, display indicating the state of charge provided. The color of the outside trim of this display will be red. The battery charger will be wired to the AC shoreline inlet through a splice box.
0813919	Panel, Charger Display, Kussmaul, Included w/ Charger	REMOTE CONTROL PANEL - BATTERY CHARGER There will be a Kussmaul™, charger display included.
0815291	Location, Cab, Ind/Remote, LS Above Wheel Well	The battery charger indicator will be located on the left side of the cab centered above the wheel well.
0811952	Not Required, Indicator/Remote Status	INDICATOR/REMOTE DISPLAY - INVERTER / BATTERY CHARGER There will be a Vanner part number LSCR charger status display and a part number LSIR inverter status display provided.
0016857	Shoreline, 20A 120V, Kussmaul Auto Eject, 091-55-20-120, Super	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. The shoreline inlet(s) will include red 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 Battery Charger and Block Heater. 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
0026800	Shoreline Location	The shoreline receptacle will be located in the driver side lower step well of cab.
0647728	Alternator, 430 amp, Delco Remy 55SI	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.

0092582	Load Manager/Sequencer, MUX	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. 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)
0766233	Headlights, Rect LED, Truck-Lite, AXT/DCF/Enf/Imp/Sab/Vel	HEADLIGHTS There will be four (4) Truck-Lite®, rectangular LED lights 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 27640C low beam module the inside light on each side will contain a part number 27645C high beam module 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.
0648425	Light, Directional, WIn 600 Cmb, Cab Crn, Imp/Vel/AXT/Qtm/DCF	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.
0750542	Light, Directional/Marker, Intermediate, Truck-Lite 60421Y LED 2lts	INTERMEDIATE LIGHT There will be two (2) Truck-Lite®, Model 60421Y, amber LED lights furnished, one (1) each side, horizontally in the rear fender panel. The light will double as a turn signal and marker light. A stainless steel trim will be included with this installation.
0648074	Lights, Clearance/Marker/ID, Front, P25 LED 7 Lts	CAB CLEARANCE/MARKER/ID LIGHTS There will be seven (7) amber LED lights provided to indicate the presence and overall width of the vehicle in the following locations: 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. Two (2) amber LED marker lights will be installed, one (1) on each side above the cab doors.

0535157	Lights, Clearance/Marker/ID, Rear, Truck-Lite 33050R LED 7Lts, PUC/HDRP	REAR CLEARANCE/MARKER/ID LIGHTING There will be three (3) Truck-Lite®, Model 33050R, LED lights used as identification lights recessed and 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 33050R, LED lights recessed 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 There will be two (2) Truck-Lite, Model 33050R, LED lights recessed 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.
0517025	Lights, Tail, Wrap-around, Stop/Tail, Turn & Backup LED, Tri-Cluster	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
0085910	Lights, Backup Included in Signal Cluster	
0889577	Bracket, License Plate & Light, P25 LED, Stainless Brkt	LICENSE PLATE BRACKET One (1) license plate bracket constructed of stainless steel will be provided at the rear of the apparatus. One (1) white LED light with chrome housing will be provided to 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.
0589905	Alarm, Back-up Warning, PRECO 1040	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.
0578264	Flash Pattern, California Title13, LED Warning Lights	WARNING LIGHT FLASH PATTERN The flash pattern of all the exterior warning lights will be set to meet the certified California, Title XIII flash pattern by either the light manufacturer's default flash pattern or by a conversion change to the certified flash pattern.
0769569	Lights, Perimeter Cab, Amdor AY-LB-12HW012 LED 4Dr	CAB PERIMETER SCENE LIGHTS There will be four (4) Amdor, Model AY-LB-12HW012, 190 lumens each, 12.00" white LED strip lights provided. 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 will be activated when the battery switch is on and the respective door is open and whenever control has been selected for the body perimeter lights.
0769559	Lights, Perimeter Pump House, Amdor AY-LB-12HW012 LED 2lts	PUMP HOUSE PERIMETER LIGHTS There will be two (2) Amdor, Model AY-LB-12HW012, 190 lumens each, 12.00" LED weatherproof strip lights with brackets provided under the pump panel running boards, centered front to rear as much as possible, one (1) each side. The lights will be activated when the battery switch is on, and controlled by the same means as the body perimeter lights.

0769560	Lights, Perimeter Body, Amdor AY-LB-12HW012 LED 2lts, Rear Step	BODY PERIMETER SCENE LIGHTS There will be two (2) Amdor, Model AY-LB-12HW012, 190 lumens each, 12.00" 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.
0896454	Enhanced Software for Perimeter Lts	ENHANCED SOFTWARE FOR PERIMETER LIGHTS All perimeter lights will be deactivated when the parking brake is released unless alternate control is selected. The cab and crew cab perimeter lights will remain on for ten (10) seconds for improved visibility after the doors closed.
0557322	Lights, Step, P25 at Rear Tailboard, PUC, 4lts Perm Lts	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 applicable NFPA standards.
0549115	Lights, Side Scene, Wln 60C0ELZR Gradient LED 12, Semi-Recess Mounted, 1st	SCENE LIGHTS There will be two (2) Whelen®, Model 60C0ELZR, gradient LED scene light(s) with Model 6EFLANGE, chrome flange(s) installed on the side of the apparatus, one (1) high and rearward of driver's side cab door and one (1) high and rearward of passenger's side cab door. A control for the light(s) selected above will be the following: a switch at the driver's side switch panel a switch at the pump operator's panel no additional switch location no additional switch location These lights may be load managed when the parking brake is applied.
0549117	Lights, Side Scene, Wln 60C0ELZR Gradient LED 12, Semi-Recess Mounted, 2nd	SCENE LIGHTS There will be two (2) Whelen, Model 60C0ELZR Gradient LED scene light(s) with chrome flange installed on the side of the apparatus, one (1) high and rearward on driver's side body and one (1) high and rearward on passenger's side body . A control for the light(s) selected above will be the following: a switch at the driver's side switch panel a switch at the pump operator's panel no additional switch location no additional switch location These lights may be load managed when the parking brake is set.
0776357	Light, Visor, Wln, 12V P*H2* Pioneer, Cnt Feature, 1st	12 VOLT LIGHTING There will be one (1) Whelen® Model P*H2*, 17,750 lumens 12 volt DC light(s) with a combination of flood and spot optics provided on the front visor, centered. The housing(s) painted parts of this light assembly to be white. The light(s) will be controlled by a switch at the driver's side switch panel and by a switch at the passenger's side switch panel. These light(s) may be load managed when the parking brake is applied.
0532358	Not Required, Deck Lights, Other Hose Bed & Rear Lighting	
0768474	Lights, Hose Bed, Below Alum Cvr, Amdor AY-LB-12HW040, 40" LED 4lts	LIGHTS BELOW HOSE BED COVER There will be four (4) Amdor Model AY-LB-12HW040, 700 lumens, 40.00" white LED lights provided to illuminate the hose bed area. Two (2) LED light strips will be installed on the driver's side hose bed cover 30.00" from the front and rear of the hose bed, as close to the hinge as practical. Two (2) LED light strips will be installed on the passenger's side hose bed cover 30.00" from the front and rear of the hose bed, as close to the hinge as practical. The lights will be activated when the battery switch is on, and when the hosebed cover is raised.
0778195	Lights, Rear Scene, Wln, PCPSM1C Pioneer LED Fld/Spt, Surface Mount	REAR SCENE LIGHTS There will be two (2) Whelen, Model PCPSM1, LED scene lights with chrome trim bezels installed at the rear of the apparatus. These lights will be installed between 30.00" and 102.00" above the ground. The lights will be controlled by a switch at the driver's side switch panel, by a switch at the driver's side pump panel and by a switch in a stainless steel cup located at the rear of the apparatus no more than 72.00" from the ground.

0709438	Lights, Walk Surf, FRP Flood, LED	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.
0518282	Pumper, PUC, Aluminum	
0554271	Body Skirt Height, 20"	
0543689	SP Tank, Water, 550 Gallon, Poly, Rectangle, Form Fitting, PUC	WATER TANK Booster tank will have a capacity of 550 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 the current edition of applicable NFPA standards. 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. 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.
0003405	Overflow, 4.00" Water Tank, Poly	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.
0028104	Foam Cell Required	
0633066	Sleeve, Through Tank	SLEEVE, PLUMBING, THROUGH TANK One (1) sleeve will be provided in the water tank for a 2.50" pipe to the rear.
0553729	Not Required, Restraint, Water Tank, Heavy Duty	
0003429	Not Required, Direct Tank Fill	
0003424	Not Required, Dump Valve	
0048710	Not Required, Jet Assist	
0030007	Not Required, Dump Valve Chute	
0514778	Not Required, Switch, Tank Dump Master	

0597043	Body Height, PUC/HDRP	BODY HEIGHT The height of the body will be 92.00" from the bottom of the body to the top of the body.
0199241	Hose Bed, Aluminum, Pumper, PUC	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.
0723340	Unpainted/Brush Finished, Hose Bed, 3G PUC/HDRP	The hose bed walls will be unpainted and with a brushed finish.
0003481	Hose Bed Capacity, Special	Hose bed will accommodate 200' of 2.5", 1000' of 5", 600' of 3" and 600' of 3".
0689089	Divider, Hose Bed, Unpainted, w/Handhold	HOSE BED DIVIDER Three (3) hosebed dividers 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 radiused extrusion along the top, bottom, and rear edge. An oval opening will be provided near the rear of the divider to be used as a hand hold and aid in accessing the hose bed. Divider will be fully adjustable by sliding in tracks, located at the front and rear of the hose bed. 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.
0010133	Cross-Divider, Hose Bed	A cross-divider will be provided just behind the fill tower. The divider will be bolted to the side sheet.
0530804	Cover, Hose Bed, Alum Treadplate	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.
0587696	Hose Restraint, Hose Bed,One Piece Vinyl Flap,Strap Fastener,Hose Bed Frame,Rear	HOSEBED RESTRAINT REAR There will be a black vinyl flap installed at the rear of the hosebed. The flap will be attached to the top hosebed frame with quarter turn fasteners. The flap will have straps that loop through footman loops at the bottom of the hosebed and fasten with spring clip and hook fasteners and chain.
0525658	Running Boards, PUC	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.
0683043	Tailboard, 12" Deep, Full Width, Angled Corners, PUC/HDRP	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 outboard sides of the tailboard will be angled at 45 degrees beginning at the point where the body meets the tailboard at the outboard edge angling rearward to the rear edge of the tailboard. The exterior side will be flanged down and in for increased rigidity of tailboard structure.
0690029	Wall, Rear, Body Material, PUC, PUC Tanker, PRM, HDRP	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.

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.

0518345	LS 177" Rollup, (1) 50" Forward, (1) 52" Rear, FH/FD Front & Rear, PUC	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 13.25" wide x 53.63" high x 26.00" deep. The clear door opening will be a minimum of 47.25" 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. 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.
0518346	RS 177" Rollup, (1) 50" Forward, (1) 52" Rear, FH/FD Front & Rear, PUC	RIGHT SIDE COMPARTMENTATION The right side compartmentation will consist of three rollup door compartments. A full height, rollup door compartment ahead of the rear wheels will be provided. The interior dimensions of this compartment will be 50.00" 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 47.00" wide x 54.50" high. 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. 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. 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.
0692733	Doors, Rollup, Gortite, Side Compartments	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. 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.

0557309	Compt, Rear, Rollup, 40.50" FF, w/Tailboard, PUC/HDRP	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 43.50" high x 25.88" deep in the lower 34.00" 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 33.63" 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 29.00" 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.
0692743	Door, Gortite, Rollup, Rear Compartment, PUC	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. 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.
0642304	Electric Door Locks, Body Doors, Gortite	ELECTRIC DOOR LOCKS There will be seven (7) door(s) located LS1, LS2, LS3, B1, RS1, RS2, RS3 equipped with electric locks. The locks will be wired battery direct. The switch for control will be located on the driver side switch panel. In the event of loss of power, a manual override is available.
0689549	Lights, Compt, Pierce LED, Dual Light Strips, Each Side of Door	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 compartment(s): driver, passenger sides, and rear compartments. 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.
0676393	SP 177" Hatch, (2) Lift-up, 21" Wide, Both Sides, RS Shortened for Cargo Area, PUC	HATCH COMPARTMENTS Hatch compartments with two (2) lift-up, top opening hatch doors will be provided above the left and right side body compartments. Hatch compartments will be provided above the side body compartmentation. Each side will be 21.00" wide x 22.00" maximum depth. The length of the right side hatch compartment will be shortened to provide additional space in the cargo area. A 20.00" recessed step area will be provided at the rear of the compartment on the access side. Sides of the compartments will be constructed of the same material as the body and painted job color on the outside panels. A 2.00" tall formed aluminum painted to match the lower body color will 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 will have a painted smooth weld. 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. Black rubber matting shall be provided to help prevent stored equipment in pooled water. will be provided on the compartment floor to stop wet equipment from sitting in water pools.
0733406	Handrails, Hatch Step Area, (1) Curved & (1) Straight	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.

0687514	Lights, Hatch Compt, LED Strip Light, 177", Both Sides	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.
0687145	Shelf Tracks, Recessed, PUC/3rd Generation	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.
0600350	Shelves, Adj, 500 lb Capacity, Full Width/Depth, Predefined Locations	ADJUSTABLE SHELVES There will be eight (8) 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 RS1 centered between the floor and the ceiling, in RS3 centered between the floor and the ceiling, in RS3 in the upper third, in RS2 in the upper third, in RS1 in the upper third, in LS1 centered between the floor and ceiling, in LS2 in the upper third and in LS1 in the upper third.
0709689	Tray, 500 lb Slide-out, 2" Sides - Adj. Height, Predefined Locations	SLIDE-OUT ADJUSTABLE HEIGHT TRAY There will be three (3) slide-out trays 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. 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 LS3 centered between the floor and ceiling to right of the partition, in LS3 in the upper third to the right of the partition and in LS3 in the lower third to the right of the partition
0667235	Cable, Single Hand Operation, Tilt/Slide Out, Utility Trays	SINGLE HANDED CABLE LATCH A cable will be provided to tie together the two (2) spring loaded locks that are provided as standard at the front of a slide-out/tilt tray in order to provide single hand operation of the tray. The single hand operation cable will be provided on a total of two (2) slide-out trays located One (1) LS2 and One (1) in RS2.
0635427	SP Tray, 215 lb, Tilt/Slide-Out, 30 Deg, Adj, Painted, Max Width/Depth, 3G	SLIDE-OUT/TILT-DOWN TRAY There will be two (2) slide-out trays provided. The bottom of each tray will constructed of 0.188" thick aluminum while special aluminum extrusions will be utilized for the tray sides, ends, and tracks. The corners will be welded to form a rigid unit. Each tray will be designed as wide and as deep as the compartment will allow. Each tray will be painted spatter gray to match the compartment it is mounted in. 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 tray(s) will be located One (1) in LS2 and One (1) in RS2 .
0647772	Tray, Floor Mounted, Slide-Out, 500lb, 2.00" Sides, 3G	SLIDE-OUT FLOOR MOUNTED TRAY There will be three (3) floor mounted slide-out tray(s) with 2.00" sides provided LS1, B1 and RS1. Each tray will be rated for up to 500lb in the extended position. The tray(s) will be constructed of .19" aluminum with non-welded corners. The finish will be 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 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.

0726412	Partition, Trans Rear Compt, PUC/HDRP	PARTITION, TRANSVERSE REAR COMPARTMENT One (1) partition will be bolted in place to separate the left side rear compartment from the rear tailboard compartment. The partition will be body material with a brushed finish.
0726457	Partition, Vertical Compt, Predefined Locations	VERTICAL COMPARTMENT PARTITION One (1) partition will be provided. The partition construction will consist of body material with a dual action finish. Each partition will be the full vertical height of the compartment. The location(s) will be determined at a later date.
0004020	Rub Rail, Stainless Steel	RUB RAIL The bottom edge of the side compartments will be trimmed with a bright stainless steel rub rail. The rub rail will be 2.00" high and extend 1.00" away from the body, with slanted ends to provide a pleasing appearance. These rub rails will not be an integral part of the body construction, which allows replacement in the event of damage.
0515441	Fender Crowns, Rear, S/S, W/Removable Fender Liner, Pumper, 3G	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.
0519849	Not Required, Hose, Hard Suction	HARD SUCTION HOSE Hard suction hose will not be required.
0527021	Handrails Located @ Front Body	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.
0664688	Handrails, Rear, PUC/HDRP	Two (2) vertical handrails will be located at the rear, one on each side of the rear compartment .
0000941	No Rear Hose Bed Handrail Required	
0657651	Compt, Air Bottle, Double, Fender Panel	AIR BOTTLE STORAGE (Double) A quantity of three (3) air bottle compartments, 15.25" wide x 7.75" tall x 26.00" deep, will be provided on the left side forward of the rear wheels, on the right side forward of the rear wheels and on the right side rearward of the rear wheels . A polished stainless steel door with a chrome plated flush lift & turn 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, black rubber matting will be provided.
0004225	Ladder, 24' Duo-Safety 900A 2-Section	EXTENSION LADDER There will be a 24' two-section aluminum Duo-Safety Series 900-A extension ladder provided.
0004230	Ladder, 14' Duo-Safety 775A Roof	ROOF LADDER There will be a 14' aluminum Duo-Safety Series 775-A roof ladder provided.
0638384	Rack, Ladders, RS Full Depth Body, PUC/HDRP	LADDER STORAGE The ladders will be stored inside the upper section of the right 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.
0733387	Ladder, 10' Duo-Safety Folding 585A	FOLDING LADDER One (1) 10.00' aluminum, Series 585-A, Duo-Safety folding ladder will be installed.

0554061	Pike Pole, 10' DUO Safety, Fiberglass, Pumper NFPA Classification	10' PIKE POLE One (1) pike pole 10' long DUO Safety with a fiberglass handle will be provided.
0733370	Pike Pole, 6' DUO Safety, Fiberglass	PIKE POLE, 6' One (1) pike pole, 6' long Duo Safety with a fiberglass handle, will be provided.
0608351	SP Compt, Pike Poles/Fld Ldr In Upper Bdy (1) RS, Long Storage (1) LS, Latch, PUC	PIKE POLE/FOLDING LADDER COMPARTMENT One (1) pike pole compartment will be provided, recessed in the upper, inside part of body compartment on the right side. The compartment will be equipped with two (2) aluminum tubes to hold two (2) pike poles and a stainless steel trough for the folding ladder. The door will be made of smooth aluminum and have a flush lift and turn latch. One (1) compartment will be provided, recessed in the upper, inside part of body compartment on the left side for storage of long handle tools. The door will be made of [Door, Material, Storage] and have a [Latch, Door, Storage].
0058193	Tubes, Alum, Pike Pole Storage, Spcl Notch, NY PP Head	PIKE POLE STORAGE Aluminum tubing will be used for the storage of one (1) pike pole and will be located Upper Crosslay long tool storage compartment (Option 735116) Exact location TBS at Pre-con. If the head of a pike pole can come in contact with a painted surface, a stainless steel scuffplate will be provided. The pike pole tube will be notched to allow a New York style pike pole to fit into the tube.
0521734	No Steps Required, Front Of Body, PUC	
0515521	Ladder, Top Access, Alum, LH Rear, PUC/HDRP	LADDER, TOP ACCESS A wide easy climbing access ladder, constructed of aluminum rungs and extruded aluminum rails, will be provided on the left side 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.
0515692	Pump Operators Panel, 31", Control Zone, PUC	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. Bezel 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. 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.
0520016	Not Required, Pumphouse Structure, PUC	

0889385	Pump, Pierce, 1500 GPM, Single Stage, PUC-NG	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 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. Removal of the main inlet wyess 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 one (1) 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.
0515822	Seal, Mechanical, Silicon Carbide, PUC 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 X106mm/mm*K to be more resistant to thermal shock.
0802234	Gear Case, Integrated Pump Transmission, PUC-NG, Cummins	PUMP GEAR CASE The integrated pump transmission gear case will use a pressure-lubricated system to cool, lubricate, and filter the oil. The gear case will be constructed of lightweight aluminum, and impregnated with resin in accordance to MIL Spec MIL-I-17563. A sight glass, accessible by tilting the cab, will be provided for easy fluid level checks. The gear case will consist of three (3) gears to drive the pump. CLUTCH There will be a heavy-duty hydraulic clutch mounted directly to the integrated pump transmission 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 hydraulic system to assure superior performance. LOW PRESSURE/HIGH TEMPERATURE LIGHTS Lights will be provided to indicate when a high temperature or low pressure situation occurs. Lights will be provided next to the master gauges at the pump panel as well as on the control panel in the cab. A pair of lights will be provided in each location. One (1) light will be provided to indicate high temperature. The second light will be provided to indicate a low pressure. All lights will be labeled accordingly.

0721196	Pumping Mode, Pump and Roll/Stationary, Basic, MUX, PUC	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 in view of the driver.
0515829	Pump Shift, Sure-Shift	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 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.
0515833	Transmission Lock-up, Not Req'd, Park to Neutral, Pump, PUC	TRANSMISSION LOCK UP Transmission lock up is not required as transmission will automatically shift to neutral as soon as the parking brake is set.
0515835	Auxiliary Cooling System, PUC	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.
0014486	Not Required, Transfer Valve, Single Stage Pump	
0746501	Valve, Relief Intake, Elkhart	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 .

0724463	Controller, Pressure, Pierce LCD, PUC	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 No Mode/Default Press 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. 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 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 transmission 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.
0072153	Primer, Trident, Air Prime, Air Operated	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 applicable NFPA standards. 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.
0780359	Manuals, Pump, (2) Total, Electronic Copies, Pierce PUC Pump	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.
0602496	Plumbing, Stainless Steel and Hose, Single Stage Pump, PUC	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.

0795135	Plumbing, Stainless Steel, w/Foam System	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.
0517852	Inlets, 6.00" - 1250-2000 GPM, Pierce PUC Pump	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.
0730359	Valve, Ball Intake, TFT, ABD Series	INLET VALVES WITH INTAKE RELIEF VALVE There will be Two (2) Task Force Tips (TFT) ABD Series manually operated aluminum ball intake valve(s) provided at At pump main inlets . The inlet connection will be 7NR (4.5" Threaded Swivel) with a matching and the outlet connection will be NX (6.0" Threaded Swivel) . The ball intake valve will be controlled with a NFPA compliant slow-close hand wheel. A position indicator will be provided to allow for a quick visualization of the status of the valve in the open, closed or transition position. The ball intake valve will be equipped with standard adjustable pressure relief valve. The relief valve will have a working range of 90 PSI to 300 PSI. A 3/4" TFT bleeder/drain valve will be provided on the ball intake valve to exhaust excess air or water from the valve. For corrosion protection the aluminum casting will have a hard coat anodized finish, with a powder coated internal and external finish. All the components facing the wet side of the valve will be constructed from stainless steel.
0004646	Cap, Main Pump Inlet, Long Handle, NST, VLH	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.
0687773	Valves, Elkhart Unibody - All Ball Valves, PUC	VALVES All ball valves will be Elkhart Unibody series. Seats will be self-adjusting for minimum operating torque and maximum abrasion resistance. The Elkhart valves will have an automatic locking feature to hold the ball in any throttle position at any operating pressure. The valve body design will allow any actuator to be mounted to the body.
0520002	Valve, Inlet(s) Recessed, Side Cntrl, PUC	The location of the valve for the two (2) inlets will be recessed behind the pump panel.
0004700	Control, Inlet, at Valve	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.
0004660	Inlet (1), Left Side, 2.50"	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.
0004680	Inlet, Right Side, 2.50"	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.
0521137	Anode, Zinc, Pair, Pump Inlets, PUC	ANODE, INLET A pair of sacrificial zinc anodes will be provided in the water pump inlets to protect the pump from corrosion.
0650999	No Front Inlet (Large Dia) Requested	
0064119	No Actuation Req'd	
0009606	No Intake Relief Valve Required on Front Inlet	
0650998	Not Required, Elbow/Swivel/Adapter, Front Suction	

0521688	Not Required, Cap, Long Handle, Front Inlet, Pre-connected Hose	
0092569	No Rear Inlet (Large Dia) Requested	
0064116	No Rear Inlet Actuation Required	
0092696	Not Required, Cap, Rear Inlet	
0009648	No Rear Intake Relief Valve Required on Rear Inlet	
0092568	No Rear Auxiliary Inlet Requested	
0723049	Valve, .75" Bleeder, Aux. Side Inlet, "T" Swing Handle	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.
0520277	Tank to Pump, (1) 3.00" Valve, 4.00" Plumbing, PUC	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.
0595508	Outlet, Tank Fill, 1.50", PUC	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.
0740455	Control, Outlets, Swing Handle, Elect RS Outlets Elkhart Apex w/Press Disp, PUC	DISCHARGE OUTLET CONTROLS The discharge outlets will incorporate a quarter-turn ball valve with the control located at the pump operator's panel. The valve operating mechanism will indicate the position of the valve or an indicator will be provided to show when the valve is closed. The right side discharges will be controlled by an Elkhart Apex electric valve controller with the manual override located on the right side pump panel. The controller unit will provide position feedback with a LED display that indicates closed to fully open status. The controller will be completely sealed with two (2) button open and close valve position. In addition to valve position, each controller 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.
0516755	Outlet, Left Side, 2.50" (2), PUC	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.
0539271	Elbow, Left Side Outlets, 30 Degree, 2.50"FNST x 2.50" MNST, VLH, PUC	LEFT SIDE OUTLET ELBOWS The 2.50" discharge outlets, located on the left side pump panel, will be furnished with a 2.50" (F) National Standard hose thread x 2.50" (M) National Standard hose thread, chrome plated, 30 degree elbow. The elbow will be Pierce VLH, which incorporates an exclusive thread design to automatically relieve stored pressure in the line when disconnected.
0092570	Not Required, Outlets, Left Side Additional	
0035094	Not Required, Elbow, Left Side Outlets, Additional	

0746573	Outlet, Right Side, 2.50", (1), Elec, Elk, Apex Cont, Press, PUC	RIGHT SIDE DISCHARGE OUTLET There will be one (1) discharge with a 2.50" valve on the right side of the apparatus, terminating with a 2.50" (M) National Standard hose thread adapter. The discharge will be located below the crew cab, and will be no higher than the top of the chassis frame rail. The valve will be controlled with an Elkhart Apex 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 controller will have momentary open, close as well as programmable preset valve positions. 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, each controller will include a pressure display.
0539269	Elbow, Right Side Outlets, 30 Degree, 2.5" FNST x 2.5" MNST, VLH, PUC	RIGHT SIDE OUTLET ELBOWS The 2.50" discharge outlets, located on the right side pump panel, will be furnished with a 2.50" (F) National Standard hose thread x 2.50" (M) National Standard hose thread, chrome plated, 30 degree elbow. The elbow will be the Pierce VLH, which incorporates an exclusive thread design to automatically relieve stored pressure in the line when disconnected.
0092571	Not Required, Outlets, Right Side Additional	
0089584	Not Required, Elbow, Right Side Outlets, Additional	
0808874	SP Outlet, Right Side, 4" w/4" Valve, Elec, Elk, Dual Apex Cont, Press, PUC	LARGE DIAMETER DISCHARGE OUTLET There will be one (1) discharge with a 4.00" valve on the right side of the apparatus, terminating with a 4.00" (M) National Standard hose thread adapter. The discharge will be located below the crew cab, and will be no higher than the top of the chassis frame rail. The valve will be controlled with an Elkhart Apex electric valve controller provided on the pump operators panel with a second controller provided at the outlet. The electric control must be of a true position feedback design, requiring no clutches in the motor or current limiting. The controller will have momentary open, close as well as programmable preset valve positions. 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, each controller will include a pressure display.
0566073	Elbow, Large Dia Outlet, 30 Deg, 4.00" FNST x 4.50" MNST	LARGE DIAMETER OUTLET ELBOWS The 4.00" outlet will be furnished with a 4.00" (F) National Standard hose thread swivel x 4.50" (M) National Standard hose thread elbow adapter with cap.
0092572	Not Required, Outlet, Front	
0516777	Outlet, Rear, 2.50", (1), Thru Tank, PUC	REAR DISCHARGE OUTLET There will be One (1) discharge outlet piped to the rear of the hose bed on left side, installed so proper clearance is provided for spanner wrenches or adapters. Plumbing will consist of 2.50" piping along with a 2.50" full flow ball valve with the control from the pump operator's panel. Discharge will terminate with 2.50" NST thread. Discharge piping will be schedule 10 304L welded or formed stainless steel and routed through the water tank.
0045091	Elbow, Rear Outlets, 45 Degree, 2.50" FNST x 2.50" MNST, VLH	REAR OUTLET ELBOWS The 2.50" discharge outlets located at the rear of the apparatus will be furnished with a 2.50" (F) National Standard hose thread x 2.50" (M) National Standard hose thread, chrome plated, 45 degree elbow. The elbow will be Pierce VLH, which incorporates an exclusive thread design to automatically relieve stored pressure in the line when disconnected.
0537394	Not Required, Outlet, Rear, Additional, PUC	
0537395	Not Required, Elbow, Rear Outlets, Additional	
0752097	Caps/Plugs for 1.00" to 3.00" Discharges/Inlets, Chain	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.

0723042		Valve, 0.75" Bleeder, Discharges, "T" Swing Handle	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.
0516860		Outlet, 3.00" Deluge w/2.50" Valve, PUC	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. 3.00" piping will be 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.
0095958		Deluge Outlet, Special Height/Location	DELUGE OUTLET SPECIAL INSTRUCTIONS The deluge gun outlet will be located Off set the deluge 3.00" to the drivers side to clear the hose reel and allow full rotation of the monitor..
0543608		Monitor, Akron 3433 Hi-Riser and (2) 2.5" Inlet Grd Base	MONITOR An Akron Model 3433 Apollo Hi-Riser monitor will be properly installed on the deluge riser. A fixed mounting base and a portable base with two (2) 2.50" inlets will be provided. A position sensor will be provided on the monitor that will activate the "do not move apparatus" light inside the cab when the monitor is in the raised position. The monitor will be painted as provided by monitor manufacturer.
0046998		Nozzle, Elkhart SM-1250, Manual, ST-194 Tips and 282A shaper	MONITOR NOZZLE An Elkhart #SM-1250 Select-O-Matic manual pattern control master stream nozzle will be provided. Also included is an Elkhart ST-194 Quad stack tips and 282A shaper.
0005070		Deluge Mount, NPT	The deluge riser will have male National Pipe Threads for mounting the monitor.
0740360	SP	Crosslay Module, Standard Width, Raised Upper, Special Height,PUC	CROSSLAY MODULE The crosslay module will be standard width. The forward, upper corners of the module will have full body corners. RAISED CROSSLAY The upper section of crosslays will be raised from its standard height to allow a clear opening of 23.50" in the lower crosslay. Raising the upper crosslay opening will increase the height of the lower crosslays. The upper open section will shorten in height. If crosslays are required in this upper area, the hose capacity will determine the width.
0895041	SP	Hose Restraint, Crosslay, 1" Nylon Web, 2 Piece, Each Side, PUC	CROSSLAY HOSE RESTRAINT There will be a two (2) piece black 1" nylon webbing design with a 2.00" box pattern provided across each end of the crosslay(s) to secure the hose during travel. One (1) piece will cover the upper crosslay openings and one (1) piece will cover the lower crosslay opening. Each restraint will be held in place with footman loops at the forward edge. Each restraint will have two (2) seat belt buckles at the rearward edge. The female buckle will be attached to the restraint.

0750916	Crosslays, (2) 1.50", W/Poly Trays, PUC	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.
0746380	Crosslay, (1) 1.50", W/Poly Trays, PUC	CROSSLAY(S), UPPER There will be one (1) upper crosslays provided. 1.50" Crosslays There will be one (1) 1.50" crosslays plumbed with 2.00" welded or formed schedule 10 304L stainless steel pipe. 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.
0735116	SP Storage, Long Tool, Adjus Partition, Upper Crosslay Module, Door, PUC	LONG TOOL STORAGE Storage will be provided for long tools in the upper crosslay module. The storage area will be enclosed and removable from either side of the truck. A vertically hinged aluminum treadplate door with a D-handle latch will be provided on each end of the storage. The doors will be hinged along the rearward edge. The area for storage of long tools will be Ahead of the upper crosslay and as wide as possible while still being able to open the door fully and remove backboard or long handle tool. Match previous Job 26797 in size. There will be One (1) partition vertically mounted in adjustable tracks installed Ahead of the upper crosslay. Match previous Job 26797 .
0015216	Reel, Booster, Aluminum - Over Pump, Right Side	BOOSTER HOSE REEL A Hannay electric rewind booster hose reel will be installed over the pump in a recessed open compartment on the right side of the apparatus. The reel will be fabricated of aluminum and have highly polished end discs. A polished stainless steel roller and guide assembly will be mounted on the reel side of the apparatus. Discharge control will be provided at the pump operator's panel. Plumbing to the reel will consist of 1.50" Aeroquip hose and a 1.50" valve.
0005281	Switch, Reel Rewind - Stirrup, 1 Reel/1 Switch	Reel motor will be protected from overload with an automatic reset circuit breaker. One (1) foot actuated, stirrup type, electric rewind control (switch) will be installed below the running board.
0005300	Hose, Booster - 150' of 1.00"/800 PSI	Booster hose, 1.00" diameter and 150 feet, with chrome plated Barway, or equal couplings will be provided. Working pressure of the booster hose will be a minimum of 800 psi.
0017858	Capacity, Hose Reel 150' of 1"	Capacity of the hose reel will be 150 feet of 1.00" booster hose.
0007428	Nozzle for Booster Reel Not Req'd	

0085328	Nozzle Cup, Zico w/Bracket	NOZZLE CUP AND BRACKET A Zico nozzle cup and chrome plated mounting bracket will be provided for storage of the booster reel nozzle. There will be one (1) provided. The nozzle cup(s) will have a 3-1/2" inside diameter and will be located passenger side front body bulkhead.
0676021	Foam Sys, Husky 3, Single Agent, PUC, Multi Select Feature	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. 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. 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 hose reel in the rear compartment. System Electrical Load The maximum current draw of the electric motor and system will be no more than 55 amperes at 12 VDC.

0012126	Not Required, CAF Compressor	
0592527	Refill, Foam Tank, Integral, Husky 3	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 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.
0031896	Demonstration, Foam System, Dealer Provided	
0530519	Foam Cell, 30 Gallon, Not Reducing, PUC	FOAM CELL The foam cell will be an integral portion of the polypropylene water tank. The cell will have a capacity of 30 gallons of foam with the intended use of Class A foam. The brand of foam stored in this tank will be Phos-Chek. The foam cell will not reduce the capacity of the water tank. The foam cell will have a screen in the fill dome and a breather in the lid.
0697589	Drain, 1.00", Foam Tank #1, Husky 3 Foam System, Quarter Turn	FOAM TANK DRAIN The foam tank drain will be a 1.00" quarter turn drain valve located inside the pump/plumbing compartment.
0091079	Not Required, Foam Tank #2	
0091112	Not Required, Foam Tank #2 Drain	
0746447	Approval Dwg, All Pump Panel(s), Includes Color And Label Tags	The following drawing(s) will be provided for approval by the customer. The drawing(s) will be made for up 26797 apparatus and/or similar Pierce job number. PUMP OPERATOR'S PANEL DRAWING A detailed drawing to scale of the pump operator's panel will be provided for the customer to review. The drawing will include all of the gauges, controls, switching, etc., located on the pump operator's panel. The customer will be allowed to make changes and/or mark-ups to this approval drawing. The fire apparatus manufacturer will make revisions (If needed) to the drawing per the customer changes and/or mark-ups as long as the changes are physically possible within a specific product line. The finalized and signed customer approved pump operator's panel drawing will become part of the contract documents. Due to the way drain(s), bleeder(s), operational/maintenance tag(s) and NFPA required warning tag(s) are placed on pump panel(s), these items will NOT be shown on any pump panel approval drawing(s). These item(s) will be placed on pump panel(s) at the fire apparatus manufacturer discretion. REMAINING PUMP PANEL(S) Detailed drawing(s) to scale of the remaining pump panel(s) will be provided for the customer to review. The drawing(s) will include all of the gauges, controls, switching, etc., located on the pump panel(s). The customer will be allowed to make changes and/or mark-ups to these approval drawing(s). The fire apparatus manufacturer will make revisions (If needed) to the drawing(s) per the customer changes and/or mark-ups as long as the changes are physically possible within a specific product line. The finalized and signed customer approved pump panel drawing(s) will become part of the contract documents. Due to the way drain(s), bleeder(s), operational/maintenance tag(s) and NFPA required warning tag(s) are placed on pump panel(s), these items will NOT be shown on any pump panel approval drawing(s). These item(s) will be placed on pump panel(s) at the fire apparatus manufacturer discretion. COLOR CODED TAGS A detailed drawing/chart of the colors used on all of the inlet(s) and outlet(s) will be provided for the customer to review. The customer will be allowed to make changes and/or mark-ups to this approval drawing/chart. The fire apparatus manufacturer will make revisions (If needed) to the drawing per the customer changes and/or mark-ups as long as the changes are physically possible within a specific product line. The finalized and signed customer approved drawing/chart of the colors will become part of the contract documents. SPECIAL TEXT/VERBIAGE TAGS A detailed drawing/chart of the text/verbiage used on all of the inlet(s) and outlet(s) will be provided for the customer to review. The customer will be allowed to make changes and/or mark-ups to this approval drawing/chart. The fire apparatus manufacturer will make revisions (If needed) to the drawing per the customer changes and/or mark-ups as long as the changes are physically possible within a specific product line. The finalized and signed customer approved drawing/chart of the text/verbiage will become part of the contract documents.

0032479	Pump Panel Configuration, Control Zone	PUMP PANEL CONFIGURATION The pump panel configuration will be arranged and installed in an organized manner that will provide user-friendly operation.
0516975	Material, Pump Panels, Operators Brushed Stainless, Sides Brushed Stainless, PUC	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.
0516978	Pump and Plumbing Access, Simple Tilt Service, PUC	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. 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.
0520326	Light, Pump Compt, PUC	PUMP COMPARTMENT LIGHT A pump compartment light will be provided inside the plumbing area. A .125" weep hole will be provided in each light lens, preventing moisture retention.
0516983	Gauges, Engine, Included With Pierce Pressure Controller, PUC	Engine monitoring graduated LED indicators will be incorporated with the pressure controller.
0005601	Throttle, Engine, Incl'd w/Press Controller	
0739224	Indicator Light @ Pump Panel, Throttle Ready, Incl w/Pressure Gov/Throttle, Green	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.
0549333	Indicators, Engine, Included with Pressure Controller	
0005689	Gauges, 4.50" Master, Class 1, 30"-0-600psi	VACUUM AND PRESSURE GAUGES The pump vacuum and pressure gauges will be liquid filled and manufactured by Class 1 Incorporated ©. The gauges will be a minimum of 4.50" in diameter and will have white faces with black lettering, with a pressure range of 30.00"-0-600#. 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 polished stainless steel plugs. They will be marked with a label.
0511104	Gauge, 3.00" Pressure, Class 1, 30"-0-400psi	PRESSURE GAUGES The individual "line" pressure gauges for the discharges will be interlube filled and manufactured by Class 1©. The gauges will be a minimum of 3.00" in diameter and will 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.

0756688	Gauge, Water Level, Pierce, In pressure Controller, w/Mini Slave, PUC, Lt Driver	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.
0750438	Water Level Gauge, WIn PSTANK2, LED 1-Light, 4-Level	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.
0062992	Gauge, Foam Level, (1) Tank, Class 1, GAAAR 5lt	FOAM LEVEL GAUGE An electronic foam level gauge will be provided on the operator's panel that registers foam level by means of five (5) colored LED lights. The lights will be durable, ultra-bright five (5) LED design viewable through 180 degrees. The foam level indicators will be as follows: 100 percent = Green 75 percent = Yellow 50 percent = Yellow 25 percent = Yellow Refill = Red The light will flash when the level drops below the given level indicator to provide an eighth of a tank indication. To further alert the pump operator, the lights will flash sequentially when the foam tank is empty. The level measurement will be based on the sensing of head pressure of the fluid in the tank. The display will be constructed of a solid plastic material with a chrome plated die cast bezel to reduce vibrations that can cause broken wires and loose electronic components. The encapsulated design will provide complete protection from foam and environmental elements. An industrial pressure transducer will be mounted to the outside of the tank. The display will be able to be calibrated in the field and will measure head pressure to accurately show the tank level.
0520243	Light, Pump Operator & Panel, Side Ctrl, PUC, Incandescent	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 a light on each side of the back of the cab. The pump operator's panel will utilize strip lighting at the forward doorframe and an overhead light.
0606694	Air Horns, (2) Hadley, 6" Round, eTone, In Bumper	AIR HORN SYSTEM Two (2) Hadley®, eTone, chrome air horns will be recessed in the front bumper. The air horn system will be piped to the air brake system wet tank utilizing 0.38" tubing. A pressure protection valve will be installed to prevent the loss of air in the brake system.
0606832	Location, Air Horns, Bumper, Left Side, Outside Frame, Same Side (Pos #6 & #7)	Air Horn Location The air horns will be located on the left side of the bumper, outside of the frame rail.
0757092	Control, Air Horn, Multi Select	Air Horn Control The air horn(s) will be activated by the following:
0757084	Control, Air Horn, Horn Ring	Steering wheel horn ring with electric/air horn selector switch
0723391	Control, Air Horn, Chrome Push Button Sw, RS	Right side chrome push button switch

0006133	Siren, Code 3 3692 100W or 200W	ELECTRONIC SIREN A Code 3®, Model 3692, electronic siren with noise canceling microphone will be provided. This siren to be active when the battery switch is on and the emergency master switch is on.
0557179	Location, Siren, Heavy Swivel Mount Center Console, Not Overhead	Siren head will be located on a heavy duty swivel bracket mounted on the center console between the driver and officer seats, located To be determined at pre-construction. The swivel bracket will be capable of rotating a minimum of 180 degrees.
0076156	Control, Elec Siren, Head Only	The electronic siren will be controlled on the siren head only. No horn button or foot switches will be provided.
0601398	Speaker, (1) Code 3, C3100 Series	SPEAKER There will be one (1) Code 3®, Model C3100 speaker provided. The speaker will be connected to the siren amplifier.
0601552	Location, Speaker, Frt Bumper, Recessed, Right Side, Outside Frame, Inbrd (Pos 2)	The speaker will be recessed in the right side of the front bumper, just outside of the frame rail.
0895281	Siren, Federal Q2B, Littelfuse 24213 Sol	AUXILIARY MECHANICAL SIREN There will be a Federal Signal Model Q2B mechanical siren furnished and installed in the front of the apparatus. The Q2B siren will be chrome finish. The siren will have a 2-gauge cable connected to a Littelfuse part number 24213 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.
0006097	Location of Siren, Recessed in Bumper	The mechanical siren will be recessed in the front bumper on the left side. The siren will be properly supported using the bumper framework.
0748305	Control, Mech Siren, Multi Select	MECHANICAL SIREN CONTROL The mechanical siren will be activated by the following:
0748281	Control Mech Siren, Ft Sw RS	Right side foot switch.
0748282	Control Mech Siren, Ft Sw LS	Left side foot switch.
0740391	Sw, Siren Brake, Momentary Chrome Push Button, RS	A momentary chrome push button switch will be included in the right side dash panel to activate the siren brake.
0023656	Grille, Speaker, Front Bumper, S/S	SPEAKER GRILLE There will be one (1) grille provided over the speaker in the front bumper. The grille will be made of stainless steel.
0746353	Not Required, Warning Lights Intensity	

0751350	SP Lightbar, Wln, Freedom IV-Q, 81", RRRRRWsrROptRsrWRRRRR	FRONT ZONE UPPER WARNING LIGHTS There will be one (1) 81.00" Whelen® Freedom IV lightbar mounted on the cab roof. The lightbar will include the following: One (1) red flashing 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) red 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) white flashing LED module in the left side fourth front position One (1) red steady burning LED module in the left side fifth front position One (1) red flashing LED module in the left side sixth front position. One (1) 795 LED traffic light controller set to national standard high priority in the center positions. One (1) red flashing LED module in the right side sixth front position One (1) red steady burning LED module in the right side fifth front position One (1) white 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) red 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) red flashing LED module in the right side end position There will be clear lenses included on the lightbar. The lightbar will be controlled per the following: A switch installed in the cab on the switch panel to control the warning lights The traffic light controller by a cab switch with emergency master control. Momentary activation by an ignition powered momentary switch provided on the left side switch panels to momentarily activate the traffic light controller The white lights and the traffic light controller will be deactivated when the parking brake is applied The eight (8) red flashing LED modules in the front positions may be load managed when the parking brake is applied
0898734	Light, Front Zone, Wln M6** M6** M6** M6** Q Bzl	CAB FACE WARNING LIGHTS There will be four (4) Whelen®, Model M6**, 4.31" high x 6.75" wide x 1.37" deep flashing LED warning lights installed on the cab face, above the headlights in a housing that matches the headlights per the following: The left side outside warning light to include blue 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 colors to be the same as the LEDs. The housing to be polished and the trim shall be chrome. The lights will be controlled per the following: A switch in the cab, on the switch panel will 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. Amber, blue, green or red LEDs in the inside positions may be load managed when the parking brake is applied.
0793476	Lights, Side Zone Lower, Wln M6** LED, PUC, 2pr	SIDE ZONE LOWER LIGHTING There will be four (4) Whelen®, Model M6**, 4.31" high x 6.75" long x 1.37" deep flashing LED warning lights with chrome trim installed per the following: Two (2) lights, one (1) each side on the front custom cab corner. The side front warning LEDs to be red. Two (2) lights, one (1) each side above rear wheels. The side rear LEDs to be red. The warning light lens colors to be the same as the LEDs. There will be a switch in the cab on the switch panel to control the lights.
0564655	Lights, Rear Zn Lwr, Wln M6*C LED, Clear Lens, For Tail Lt Housing	REAR ZONE LOWER LIGHTING There will be two (2) Whelen®, Model M6*C, LED flashing warning lights located at the rear of the apparatus. The driver's side rear light to be red The passenger's side rear light to be red Both lights will include a lens that is clear. There will be a switch located in the cab on the switch panel to control the lights.
0535742	Mounting, Light, Recess in D/S Rear Bulkhead, Each	MOUNTING, RECESS LIGHT The upper rear warning light, on driver side rear bulkhead, will be recessed into the body. The lights will be flush to the compartment sheet.
0541116	Lights, Rear/Side Up Zone, Wln M6* LED, Colored Lens 4lts	WARNING LIGHTS (Rear and Side upper zones) Four (4) Whelen, model M6* LED flashing warning lights will be provided at the rear of the apparatus with Whelen, 6EFLANGE chrome flanges. The side rear upper light(s) on the driver's side to be red. The rear upper light(s) on the driver's side to be red. The rear upper light(s) on the passenger's side to be red. The side rear upper light(s) on the passenger's side to be red. These lights will include a lens that is the same color as the LED's. There will be a switch located in the cab on the switch panel to control the lights.

0006551	Not Required, Lights, Rear Upper Zone Blocking
0590000	No Hose Bed Warn Light Brackets Required,Lights Mounted on Hatch/Body Compts,PUC
0023717	Electrical System, A/C w/Customer Installed Generator

ELECTRICAL SYSTEM GENERAL DESIGN for ALTERNATING CURRENT

The following guidelines will apply to the 120/240 VAC system installation:

General

Except where superseded by the requirements of the current edition of applicable NFPA standards, all components, equipment and installation procedures will conform to NFPA 70, National Electrical Code (herein referred to as the NEC).

Line voltage electrical system equipment and materials included on the apparatus will be listed and installed in accordance with the manufacturer's instructions. All products will be used only in the manner for which they have been listed.

Grounding

An equipment grounding means will be provided in accordance with Section 250-62 (Grounding Conductor Material) of the NEC.

The grounded current carrying conductor (neutral) will be insulated from the equipment grounding conductors and from the equipment enclosures and other grounded parts. The neutral conductor will be colored white or gray in accordance with Section 200-6 (Means of Identifying Grounding Conductors) of the NEC.

In addition to the bonding required for the low voltage return current, each body and driving or crew compartment enclosure will be bonded to the vehicle frame by a copper conductor. This conductor will have a minimum amperage rating of 115 percent of the nameplate current rating of the power source specification label as defined in Section 310-15 (amp capacities) of the NEC. A single conductor, properly sized to meet the low voltage and line voltage requirements will be permitted to be used.

Wiring Methods

Fixed wiring systems will be limited to the following:

- Metallic or nonmetallic liquid tight flexible conduit rated at not less than 194 degrees Fahrenheit (90 degrees Celsius)

or

- Type SO or Type SEO cord with a WA suffix, rated at 600 volts at not less than 194 degrees Fahrenheit (90 degrees Celsius)

Electrical cord or conduit will not be attached to chassis suspension components, water or fuel lines, air or air brake lines, fire pump piping, hydraulic lines, exhaust system components, or low voltage wiring. In addition the wiring will be run as follows:

- Separated by a minimum of 12 inches (305 mm), or properly shielded, from exhaust piping
- Separated from fuel lines by a minimum of six (6) inches (152 mm) distance.

Electrical cord or conduit will be supported within six (6) inches (152 mm) of any junction box and at a minimum of every 24 inches (610 mm) of continuous run. Supports will be made of nonmetallic materials or corrosion protected metal. All supports will be of a design that does not cut or abrade the conduit or cable and will be mechanically fastened to the vehicle.

Wiring Identification

All line voltage conductors located in the main panel board will be individually and permanently identified. The identification will reference the wiring schematic or indicate the final termination point. When prewiring for future power sources or devices, the unterminated ends will be labeled showing function and wire size.

Wet Locations

All wet location receptacle outlets and inlet devices, including those on hardwired remote power distribution boxes, will be of the grounding type provided with a wet location cover and installed in accordance with Section 210-7 "Receptacles and Cord Connections" of the NEC.

All receptacles located in a wet location will be not less than 24 inches (610 mm) from the ground. Receptacles on off-road vehicles will be a minimum of 30 inches (762 mm) from the ground.

The face of any wet location receptacle will be installed in a plane from vertical to not more than 45 degrees off vertical. No receptacle will be installed in a face up position.

Dry Locations

All receptacles located in a dry location will be of the grounding type. Receptacles will be not less than 30 inches (762 mm) above the interior floor height.

All receptacles will be marked with the type of line voltage (120-volts or 240-volts) and the current rating in amps. If the receptacles are direct current, or other than single phase, they will be so marked.

Listing

All receptacles and electrical inlet devices will be listed to UL 498, Standard for Safety Attachment Plugs and Receptacles, or other appropriate performance standards. Receptacles used for direct current voltages will be rated for the appropriate service.

Electrical System Testing

The wiring and associated equipment will be tested by the apparatus manufacturer or the installer of the line voltage system.

The wiring and permanently connected devices and equipment will be subjected to a dielectric voltage withstand test of 900 volts for one (1) minute. The test will be conducted between live parts and the neutral conductor, and between live parts and the vehicle frame with any switches in the circuit(s) closed. This test will be conducted after all body work has been completed.

Electrical polarity verification will be made of all permanently wired equipment and receptacles to determine that connections have been properly made.

0809082	SP	Wiring And Mounting Provisions, Honda EM6500 SXKI - Gas, Over Pump Location	PROVISIONS FOR GENERATOR Provisions will be provided for the customer to install a generator. The generator will be a Honda, Model EM6500 SXKI, gas powered portable generator. All necessary wiring will be properly installed and structure provided to mount the generator above the pump, permanently. The generator has the following characteristics: <u>Weight</u> 227 pounds <u>Fuel Requirements</u> The generator will have its own 6.6 gallon fuel tank. <u>Exhaust</u> The muffler will be part of the generator. <u>Type of Cooling System</u> There will be a natural airflow over the generator. <u>Operating Criteria</u> The generator will be permanently mounted over the pump.
0010738		Mounting, Gas Generator Above Pump w/Quick Release Brackets	GENERATOR LOCATION The generator will be mounted in a recessed open compartment above the fire pump on the Driver side dunnage area along side hatch compartment (Match Job # 26797). The oil drain and oil dipstick for the generator will be accessible for maintenance. Generator will be mounted with quick release style mounting brackets.
0006750		Electric Start, Generator	ELECTRIC START PROVISION Electric start provisions will be furnished for the generator from the chassis battery system.
0006755		Remote Start, Gas Generator	GENERATOR REMOTE START A start/stop switch with indicator light will be provided on the pump panel in addition to the controls on the generator. The light is provided to indicate that the generator is running.
0016740		Not Required, Fuel System	
0016767		Not Required, Oil Drain Extension, Generator	
0006737		Circuit Breaker Panel w/Cust or Dealer Furn Generator	CIRCUIT BREAKER PANEL A circuit breaker panel will be installed in the CB Panel - on the back wall at the upper front corner of the compartment over the rear axle on the driver side (Match Job 26797). A directory for each breaker will be provided adjacent to the circuit breaker panel. Identification of circuits will be done in a durable manner that provides years of service. This breaker panel will be connected to Honda EM6500 SXKI generator.
0016771		Not Required, Routing Exhaust, Generator	
0763926	SP	Light Twr, W-B Chf NS1.8-600 WHL, 4-P*H2 12VDC Lts Cld 6'	LIGHT TOWER There will be one (1) Will-Burt, Model NS1.8-600 WHL light tower provided. There will be four (4) Whelen Model P*H2, 150 watt, 12 volt DC white LED light heads included on this tower. The tower will come with a combination of flood and spot optics lights. The painted parts of the light tower and light heads to be painted parts of the light tower and the light heads to be white. This tower will be connected to the Do Not Move Truck Indicator in the cab. The lights on this tower may be load managed when the parking brake is applied.
0664472		Location, Light Tower, Crew Cab Roof	Light Tower Location The light tower will be installed on the crew cab roof.
0617750		Controller, Lt Twr, W-B, Wired Hndhld, E-STOP Chf, Chf Pr, Pow Pr	Light Tower Controller There will be one (1) handheld wired controller included.
0664791		Location, Light Tower Controller, Driver's Side Front Body Compartment	Light Tower Controller Location The light tower controller will be installed in the driver's side front body compartment.

0006825	Reel, Elect Cable, Hannay, 1600, (3) Wire	ELECTRIC CORD REEL Furnished with the 120 volt AC electrical system will be a Hannay, Series 1600, cord reel. The reel will be provided with a 12-volt electric rewind switch, that is guarded to prevent accidental operation and labeled for its intended use. The switch will be protected with a fuse and installed at a height not to exceed 72.00" above the operators standing position. The exterior finish of the reel(s) will be painted #269 gray from the reel manufacturer. A captive roller assembly to be provided to aid in the payout and loading of the reel. A ball stop will be provided to prevent the cord from being wound on the reel. A label will be provided in a readily visible location adjacent to the reel. The label will indicate current rating, current type, phase, voltage and total cable length. A total of one (1) cord reel will be provided one (1) in compartment LS1 high and left. The cord reel will be configured with three (3) conductors.
0006828	Cord, Electric, 10/3 Yellow, 3 Wire	CORD Provided for electric distribution will be one (1) length installed on the reel of 200 feet of yellow 10/3 electrical cord, weather resistant 105 degree Celsius to -50 degree Celsius, 600 volt jacketed SOOW cord. A Hubbell L5-30, 30 amp, 120 volt, twist lock connector body will be installed on the end of the cord.
0788933	Box, Junc, Akron, 3Wire, 2-15/20A 120V Dup SB, 2-20A 120V TL	PORTABLE JUNCTION BOX There will be one (1) Akron EJBX electric junction box(es) provided. There will be a cable strain relief and a 1.00' pigtail with black plastic ribbed grip, NEMA L5-20, 20 amp, 120 volt twist lock plug provided for each box. Each box will be provided with the following: two (2) 15/20 amp 120 volt AC duplex straight blade receptacle with flip up covers two (2) 20 amp 120 volt AC twist lock single receptacles with flip up covers a 120 volt AC light inside the box
0778560	Receptacle, 15A 120V 3-Pr 3-Wr TL, Wtrprfroof	120 VOLT RECEPTACLE There will be three (3), 15 amp 120 volt AC three (3) wire twist lock receptacle(s) with flip up cover(s) installed One (1) - Fender well behind the rear axle, passengers side (Match job # 26797) One (1) - Fender well behind the rear axle, drivers side. (Match job # 26797) One (1) To be defined at pre-construction. The NEMA configuration for the receptacles will be L5-15R. The receptacle(s) will be powered from the on board generator. There will be a label installed near the receptacle(s) that state the following: Line Voltage Current Rating (amps) Phase Frequency
0519934	Not Required, Brand, Hydraulic Tool System	
0649753	Not Required, PTO Driven Hydraulic Tool System	
0007150	Bag of Nuts and Bolts	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.

0602516	NFPA Required Loose Equipment, Pumper, NFPA 2016, Provided by Fire Department	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. 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, <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" (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, <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, 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.
0602407	Soft Suction Hose, Provided by Fire Department, Pumper NFPA 2016 Classification	SOFT SUCTION HOSE PROVIDED BY FIRE DEPARTMENT NFPA 1901, 2016 edition, section 5.8.2.1 requires a minimum of 20' of suction hose or 15' of supply hose will be carried. Hose is not on the apparatus as manufactured. The fire department will provide suction or supply hose.
0027023	No Strainer Required	
0602538	Extinguisher, Dry Chemical, Pumper NFPA 2016 Class, Provided by Fire Department	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.
0602360	Extinguisher, 2.5 Gal. Pressurized Water, Pumper NFPA 2016, Provided by Fire Dept	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.
0602679	Axe, Flathead, Pumper NFPA 2016 Classification, Provided by Fire Department	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.

0602667	Axe, Pickhead, Pumper NFPA 2016 Classification, Provided by Fire Department	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.
0741569	Paint Process / Environmental Requirements, Appleton	PAINT PROCESS The exterior custom cab and body painting procedure will consist of a seven (7) step finishing process as follows: <u>Manual Surface Preparation</u> - 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. <u>Chemical Cleaning and Pretreatment</u> - 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. <u>Surfacer Primer</u> - 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. <u>Finish Sanding</u> - 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. <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-component high solids urethane that goes on smooth and provides excellent gloss hold out when topcoated. <u>Basecoat Paint</u> - 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. <u>Clear Coat</u> - 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. The manufacture's written paint standards will be available upon request. 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 percent efficiency factor. 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 percent. Water wash systems will be 99.97 percent 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.
0709763	Paint, Single Color, Velocity/Impel	CAB PAINT The cab will be painted #90 red.
0709845	Paint, Single Color, Body	BODY PAINT The body will be painted to match the single cab paint color.

0640911	Paint Chassis Frame Assy, E-Coat, All Joints Sealed	PAINT/SEAL CHASSIS FRAME ASSEMBLY The following components will be treated with epoxy E-coat protection prior to finish paint: Two (2) C-channel frame rails The E-coat process will meet the technical properties shown. Before the frame rails are finish painted, all areas will be sealed with a 3M 2084 metal sealant after the components are torqued to the frame rails: - The joint between all crossmembers and the frame - The joint between all spring hangers and the frame. 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 that are included with the chassis frame assembly that will be finish painted are: Frame rails Cross membersAxles Suspensions Steering gear Battery boxes Bumper extension weldment Frame extensions Body mounting angles Rear Body support substructure (front and rear) Pump house substructure Steel fuel tank Castings Individual piece parts used in chassis and body assembly After the chassis frame assembly is finish painted, the following non-torqued joints will be sealed with a SG-510A rust-proofing compound: -All bolted on chassis components that could be vulnerable to rust, i.e. body mounting angles, air tanks, etc. To summarize, all metal to metal contact components that are prone to rust, will be protected.
0693797	No Paint Required, Aluminum Front Wheels	
0693792	No Paint Required, Aluminum Rear Wheels	
0733739	Paint, Axle Hubs	AXLE HUB PAINT All axle hubs will be painted to match lower job color.
0007230	Compartment, Painted, Spatter Gray	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.
0544129	Reflective Band, 1"-6"-1"	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.
0510041	Reflective across Cab Face, Imp/Vel	The reflective band provided on the cab face will be below the headlights on the fiberglass.
0593732	Stripe, Chevron, Rear, Diamond Grade, Pumper, PUC	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.
0027341	Jog, In Reflective Stripe, Single or Multiple	JOG(S) IN REFLECTIVE BAND The reflective band located on each side of the apparatus body will contain one (1) jog(s) and will be angled at approximately a 45 degrees when installed.
0065687	Stripe, Reflective, Cab Doors Interior	CAB DOOR REFLECTIVE STRIPE A 6.00" x 16.00" white 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.
0027372	Lettering Specifications, (GOLD STAR Process)	LETTERING The lettering will be totally encapsulated between two (2) layers of clear vinyl.

0685693	Lettering, Printed Effect Gold Leaf, 3.00", Each	LETTERING There will be printed effect gold leaf lettering, 3.00" high, with outline and shade provided. There will be 16 letters provided.
0685540	Lettering, Printed Effect Gold Leaf, 9.00", Each	LETTERING There will be printed effect gold leaf lettering, 9.00" high, with outline and shade provided. There will be 26 letters provided.
0685548	Lettering, Printed Effect Gold Leaf, 7.00", Each	LETTERING There will be printed effect gold leaf lettering, 7.00" high, with outline and shade provided. There will be four (4) letters provided.
0685558	Lettering, Printed Effect Gold Leaf, 5.00", (21-40)	LETTERING Twenty-one (21) to forty (40) printed effect gold leaf lettering, 5.00" high, with outline and shade will be provided.
0685589	Lettering, Printed Effect Gold Leaf, 4.00", (21-40)	LETTERING Twenty-one (21) to forty (40) printed effect gold leaf lettering, 4.00" high, with outline and shade will be provided.
0655896	Sign Kit, Painted, Holder and Insert, Each	SIGN KIT FOR LETTERING/NUMERALS four (4) painted stainless steel plate(s) and holder(s) will be provided for department lettering. They will be mounted crew cab door above the Scotchlite stripe per signed drawing with two (2) installed per unit and two (2) shipped loose per unit. 26797-01 to say "E1" on two (2) placards and "E201" on two (2) placards. 26797-02 to say "E2" on two (2) placards and "E202" and 10" x 14" in size.
0772003	Manual, Fire Apparatus Parts, USB Flash Drive, Custom	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: 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.
0772037	Manual, Chassis Service, USB Flash Drive, Custom	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.
0773381	Manual, Chassis Operation, (1) USB Flash Drive, Custom	CHASSIS OPERATION MANUAL The chassis operation manual will be provided on one (1) USB flash drive.
0030008	Warranty, Basic, 1 Year, Apparatus, WA0008	ONE (1) YEAR MATERIAL AND WORKMANSHIP A Pierce basic apparatus limited warranty certificate, WA0008, is included with this proposal.

0611136	Warranty, Chassis, 3 Year, Velocity/Impel, WA0284	THREE (3) YEAR MATERIAL AND WORKMANSHIP The Pierce custom chassis limited warranty certificate, WA0284, is included with this proposal.
0696698	Warranty, Engine, Cummins, 5 Year, WA0181	ENGINE WARRANTY A Cummins five (5) year limited engine warranty will be provided. A limited warranty certificate, WA0181, is included with this proposal.
0684953	Warranty, Steering Gear, Sheppard M110, 3 Year WA0201	STEERING GEAR WARRANTY A Sheppard three (3) year limited steering gear warranty will be provided. A copy of the warranty certificate will be submitted with the bid package.
0595767	Warranty, Frame, 50 Year, Velocity/Impel, WA0038	FIFTY (50) YEAR STRUCTURAL INTEGRITY The Pierce custom chassis frame and crossmembers limited warranty certificate, WA0038, is included with this proposal.
0595698	Warranty, Axle, 3 Year, TAK-4, WA0050	FRONT AXLE THREE (3) YEAR MATERIAL AND WORKMANSHIP WARRANTY The Pierce TAK-4 suspension limited warranty certificate, WA0050, is included with this proposal.
0733306	Warranty, Single Axle, 5 Year, Meritor, General Service, WA0384	SINGLE REAR AXLE FIVE (5) YEAR MATERIAL AND WORKMANSHIP WARRANTY A Meritor™ Axle 5 year limited warranty will be provided.
0652758	Warranty, ABS Brake System, 3 Year, Meritor Wabco, WA0232	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.
0019914	Warranty, Structure, 10 Year, Custom Cab, WA0012	TEN (10) YEAR STRUCTURAL INTEGRITY The Pierce custom cab limited warranty certificate, WA0012, is included with this proposal.
0744240	Warranty, Paint, 10 Year, Cab, Pro-Rate, WA0055	TEN (10) YEAR PRO-RATED PAINT AND CORROSION A Pierce cab limited pro-rated paint warranty certificate, WA0055, is included with this proposal.
0524627	Warranty, Electronics, 5 Year, MUX, WA0014	FIVE (5) YEAR MATERIAL AND WORKMANSHIP The Pierce Command Zone electronics limited warranty certificate, WA0014, is included with this proposal.
0695416	Warranty, Pierce Camera System, WA0188	CAMERA SYSTEM WARRANTY A Pierce fifty four (54) month warranty will be provided for the camera system.
0647720	Warranty, Pierce LED Strip Lights, WA0203	COMPARTMENT LIGHT WARRANTY The Pierce 12 volt DC LED strip lights limited warranty certificate, WA0203, is included with this proposal.
0046369	Warranty, 5-year EVS Transmission, Standard Custom, WA0187	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.
0685945	Warranty, Transmission Cooler, WA0216	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 warranty coverage and will not exceed \$10,000 per occurrence. A copy of the warranty certificate will be submitted with the bid package.
0688798	Warranty, Water Tank, Lifetime, UPF, Poly Tank, WA0195	WATER TANK WARRANTY A UPF poly water tank limited warranty certificate, WA0195, is included with this proposal.
0596025	Warranty, Structure, 10 Year, Body, WA0009	TEN (10) YEAR STRUCTURAL INTEGRITY The Pierce apparatus body limited warranty certificate, WA0009, is included with this proposal.

0693127	Warranty, Gortite, Roll-up Door, 6 Year, WA0190	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.
0889364	Warranty, Pump, Pierce, PUC-NG, 7 Year Parts, 1 Year Labor, WA0390	SEVEN (7) YEAR PARTS, ONE (1) YEAR LABOR The pump and its components will be provided with a seven (7) 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.
0648675	Warranty, 10 Year S/S Pumping, WA0035	TEN (10) YEAR PUMP PLUMBING WARRANTY The Pierce apparatus plumbing limited warranty certificate, WA0035, is included with this proposal.
0657990	Warranty, Foam System, Husky 3, WA0231	FOAM SYSTEM WARRANTY The Husky 3 foam system limited warranty certificate, WA0231, is included with this proposal.
0595820	Warranty, Paint, 10 Year, Body, Pro-Rate, WA0057	TEN (10) YEAR PRO-RATED PAINT AND CORROSION A Pierce body limited pro-rated paint warranty certificate, WA0057, is included with this proposal.
0595421	Warranty, Goldstar, 3 Year, Apparatus, WA0018	THREE (3) YEAR MATERIAL AND WORKMANSHIP The Pierce Goldstar gold leaf lamination limited warranty limited warranty certificate, WA0018, is included with this proposal.
0683627	Certification, Vehicle Stability, CD0156	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.
0808580	Certification, Engine Installation, Imp/Vel, Cummins X10, 2027	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.
0686786	Certification, Power Steering, CD0098	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.

0892701	Certification, Cab Integrity, Impel/Velosity FR, CD0190	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: 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 cab will be subjected to dynamic preload where a 14,320-lbs moving barrier is slammed into the side of the cab at 5.50 mph, striking with an impact of 13,000 ft-lbs 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. Roof Crush The same cab will be subjected to a roof crush force of 22,050 lbs. This value meets the ECE 29 criteria, and is equivalent to the front axle rating up to a maximum of ten (10) metric tons. Additional Roof Crush The same cab will be subjected to a roof crush force of 100,000 lbs. (Four and a half times the load criteria of ECE 29) 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. There will be no exception to any portion of the cab integrity certification. Nonconformance will lead to immediate rejection of bid.
0548950	Certification, Cab Door Durability, Velocity/Impel, CD0001	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.
0548967	Certification, Windshield Wiper Durability, Impel/Velosity, CD0005	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 <i>Windshield Wiper Systems - Trucks, Buses and Multipurpose Vehicles</i>. The bidder will certify that the wiper system design has been tested and that the wiper system has met these criteria.
0667411	Certification, Electric Window Durability, Velocity/Impel FR, CD0004	ELECTRIC WINDOW DURABILITY CERTIFICATION Cab window roll-up systems can cause maintenance problems if not designed for long service life. The window regulator design will complete 30,000 complete up-down cycles and still function normally when finished. The bidder will certify that sample doors and windows similar to those provided on the apparatus have been tested and have met these criteria without malfunction or significant component wear.
0549273	Certification, Seat Belt Anchors and Mounting, Imp/Vel/Vel SLT, CD0018	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 that each seat mount and cab structure design was pull tested to the required force and met the appropriate criteria.

0735950	Certification, Cab HVAC System Perf, Vel/Imp FR, CD0166/CD0168/CD0176/CD0177	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. <i>The bidder will certify that the defrost system design has been tested in a cold chamber and passes the SAE J381 criteria.</i> Cab Auxiliary Heater <i>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.</i>
0545073	Amp Draw Report, NFPA Current Edition	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: 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 current edition of applicable NFPA standards.
0002758	Amp Draw, NFPA/ULC Radio Allowance	
0799248	Appleton/Florida BTO	
0000048	PUMPER/TANKER, 3rd Gen	
0000012	PIERCE CHASSIS	
0004713	ENGINE, OTHER	
0046395	EVS 3000 Series TRANSMISSION	
0520324	PIERCE PUMP, PUC	
0020009	POLY TANK	
0028048	FOAM SYSTEM	
0020006	SIDE CONTROL	
0020008	ELKHART VALVES	
0020014	FRONT SUCTION	
0020015	ABS SYSTEM	



Electrical Analysis

1/2/2024

Bid #: 952 **Job #:**

Desc: Hanford FD (Duplicate 41417) **Sales Rep:** Young, Dewayne

Customer: HANFORD FIRE DEPARTMENT **Organization:** Golden State Fire Apparatus, Inc

Option: Pierce Command Zone, Advanced Electronics & Control System, Impel, WiFi CZT **Type:** Multiplexed

Option	Description	Type*	Minimum Load	Intermittent Load	Total Connected
0001244	High Idle w/Electronic Engine, Custom		0.00	1.20	0.00
0002526	Light, Engine Compt, All Custom Chassis		0.00	1.60	0.00
0006755	Remote Start, Gas Generator		0.00	1.20	0.00
0006825	Reel, Elect Cable, Hannay, 1600, (3) Wire		0.00	36.00	0.00
0015216	Reel, Booster, Aluminum - Over Pump, Right Side		0.00	36.00	0.00
0032189	Mirrors, Ramco, 8000PCHR, Heated/Remote, w/Heated/Remote		0.00	0.00	8.00
0062992	Gauge, Foam Level, (1) Tank, Class 1, GAAAR 5lt		0.00	0.00	1.00
0072153	Primer, Trident, Air Prime, Air Operated		0.00	0.00	0.00
0079212	Batteries, (6) Stryten/Exide Grp 31, 950 CCA each, SAE Posts		0.00	3.00	0.00
0085910	Lights, Backup Included in Signal Cluster		0.00	4.20	0.00
0122465	Cab Lift, Elec/Hyd, Imp/Vel		0.00	180.00	0.00
0520326	Light, Pump Compt, PUC		0.00	1.80	0.00
0543751	Light, Do Not Move Apparatus		0.00	0.80	0.00
0549115	Lights, Side Scene, Wln 60C0ELZR Gradient LED 12, Semi-		0.00	0.00	5.50
0549117	Lights, Side Scene, Wln 60C0ELZR Gradient LED 12, Semi-		0.00	0.00	5.50
0549333	Indicators, Engine, Included with Pressure Controller		0.00	0.35	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
0628472	Light, Map, Overhead, Peterson M371S LED, Rectangular		0.00	0.24	0.00
0667902	Controls, Electric Windows, All Cab Doors, Impel/Velocit FR		0.00	26.00	0.00
0676021	Foam Sys, Husky 3, Single Agent, PUC, Multi Select Feature		0.00	55.00	0.00
0676393	177" Hatch, (2) Lift-up, 21" Wide, Both Sides, RS Shortened for		0.00	3.25	3.25
0687994	Engine Brake, Jacobs Compression Brake, Cummins Engine		0.00	0.42	0.00
0699542	Intercom, Sigtronics US-67D, 7-Pos, 3-Dual Radio, D,O,4C,P		0.00	0.00	0.50
0732083	Handlts, (2) Streamlight Stinger HL 75432 kit, 12v, Charging		0.00	0.50	0.00
0741239	HVAC, Heavy-Duty, Impel/Velocit FR, CARE		0.00	0.00	136.00
0763926	Light Twr, W-B Chf NS1.8-600 WHL, 4-P*H2 12VDC Lts Cld 6'		0.00	0.00	48.00
0787001	Wiring, Spare, 4.8 A 12V DC, USB Termination Blue Sea 1045		0.00	0.00	5.00
0797189	Wiring, Spare, 4.8 A 12V DC, USB Termination Blue Sea 1045 1st		0.00	0.00	5.00
0817058	Camera, Pierce, LS Mux, R Camera, SD, CL714		0.00	1.20	0.00
0819994	Radio, Jensen, AM/FM/WB, Bluetooth		0.00	0.00	2.00
0895281	Siren, Federal Q2B, Littelfuse 24213 Sol		0.00	100.00	0.00
0548004	Wiring, Spare, 15 A 12V DC 1st	Load Managed	0.00	0.00	30.00
0548006	Wiring, Spare, 15 A 12V DC 2nd	Load Managed	0.00	0.00	45.00
0548009	Wiring, Spare, 20 A 12V DC 1st	Load Managed	0.00	0.00	40.00
0548013	Wiring, Spare, 20 A 12V DC 2nd	Load Managed	0.00	0.00	40.00
0776357	Light, Visor, Wln, 12V P*H2* Pioneer, Cnt Feature, 1st	Load Managed	0.00	0.00	13.00
0002758	Amp Draw, NFPA/ULC Radio Allowance	NFPA	5.00	0.00	0.00
0006133	Siren, Code 3 3692 100W or 200W	NFPA	1.40	12.60	0.00
0092582	Load Manager/Sequencer, MUX	NFPA	0.56	0.56	0.00
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-	NFPA	2.60	7.80	0.00
0518345	LS 177" Rollup, (1) 50" Forward, (1) 52" Rear, FH/FD Front &	NFPA	6.00	0.00	6.00
0518346	RS 177" Rollup, (1) 50" Forward, (1) 52" Rear, FH/FD Front &	NFPA	6.00	0.00	6.00
0520243	Light, Pump Operator & Panel, Side Ctrl, PUC, Incandescent	NFPA	7.84	0.00	0.00
0535157	Lights, Clearance/Marker/ID, Rear, Truck-Lite 33050R LED 7Lts,	NFPA	0.50	0.00	0.00
0541116	Lights, Rear/Side Up Zone, Wln M6* LED, Colored Lens 4lts	NFPA	4.00	0.00	0.00

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



Electrical Analysis

1/2/2024

Bid #: 952 **Job #:**

Desc: Hanford FD (Duplicate 41417) **Sales Rep:** Young, Dewayne

Customer: HANFORD FIRE DEPARTMENT **Organization:** Golden State Fire Apparatus, Inc

Option: Pierce Command Zone, Advanced Electronics & Control System, Impel, WiFi CZT **Type:** Multiplexed

Option	Description	Type*	Minimum Load	Intermittent Load	Total Connected
0555915	Wiper Control, 2-Speed with Intermittent, MUX, Impel/Veloc	NFPA	2.10	8.40	0.00
0557309	Compt, Rear, Rollup, 40.50" FF, w/Tailboard, PUC/HDRP	NFPA	0.90	0.00	0.90
0557322	Lights, Step, P25 at Rear Tailboard, PUC, 4lts Perm Lts	NFPA	0.50	0.00	0.00
0564655	Lights, Rear Zn Lwr, Wln M6*C LED, Clear Lens, For Tail Lt	NFPA	1.80	2.70	0.00
0568012	Air Dryer, Wabco System Saver 1200, Heater, 2010	NFPA	7.81	0.00	0.00
0582182	DEF Tank, 4.5 Gallon, DS Fill, Rear of Rear Axle, Common Door	NFPA	0.60	11.40	0.00
0594554	Cab Instruments, Blk Gags, Blk Bez, Impel 2010	NFPA	1.26	0.00	0.00
0647647	Lights, Dome, FRP Dual LED 4 Lts	NFPA	0.80	0.80	0.00
0648074	Lights, Clearance/Marker/ID, Front, P25 LED 7 Lts	NFPA	0.49	0.00	0.00
0648425	Light, Directional, Wln 600 Cmb, Cab Crn, Imp/Vel/AXT/Qtm/DCF	NFPA	0.70	0.70	0.00
0668316	Cab, Impel FR, 7010 Raised Roof, PUC	NFPA	6.80	10.20	0.00
0687514	Lights, Hatch Compt, LED Strip Light, 177", Both Sides	NFPA	1.58	1.58	0.00
0709438	Lights, Walk Surf, FRP Flood, LED	NFPA	2.00	0.00	0.00
0724463	Controller, Pressure, Pierce LCD, PUC	NFPA	1.70	0.00	0.00
0739224	Indicator Light @ Pump Panel, Throttle Ready, Incl w/Pressure	NFPA	0.10	0.00	0.00
0750438	Water Level Gauge, Wln PSTANK2, LED 1-Light, 4-Level	NFPA	1.60	0.00	0.00
0750542	Light, Directional/Marker, Intermediate, Truck-Lite 60421Y LED	NFPA	0.10	1.00	0.00
0751350	Lightbar, Wln, Freedom IV-Q, 81", RRRRRWsrROptRsrWRRRRR	NFPA	8.96	2.68	9.92
0752582	Cabinet, Rear Facing, RS, 21.5 W x 38 H x 26.5 D, Radius, Ext	NFPA	0.22	0.22	0.00
0756688	Gauge, Water Level, Pierce, In pressure Controller, w/Mini Slave,	NFPA	1.23	0.00	0.00
0765628	Cabinet, Rear Facing, LS, 24 W x 38 H x 30.5 D, Radius, Ext Acc,	NFPA	0.81	0.81	0.00
0766233	Headlights, Rect LED, Truck-Lite, AXT/DCF/Enf/Imp/Sab/Vel	NFPA	2.40	2.40	0.00
0768474	Lights, Hose Bed, Below Alum Cvr, Amdor AY-LB-12HW040, 40"	NFPA	2.40	0.00	0.00
0769559	Lights, Perimeter Pump House, Amdor AY-LB-12HW012 LED 2lts	NFPA	0.36	0.00	0.00
0769560	Lights, Perimeter Body, Amdor AY-LB-12HW012 LED 2lts, Rear	NFPA	0.36	0.00	0.00
0769569	Lights, Perimeter Cab, Amdor AY-LB-12HW012 LED 4Dr	NFPA	0.72	0.00	0.00
0770200	Handrail, Exterior, Hansen, Knurled, Alum, LED Backlit, 4-Door	NFPA	0.80	0.00	0.00
0778195	Lights, Rear Scene, Wln, PCPSM1C Pioneer LED Fld/Spt,	NFPA	12.00	0.00	0.00
0793476	Lights, Side Zone Lower, Wln M6** LED, PUC, 2pr	NFPA	3.60	5.40	0.00
0808533	Engine, Cummins X10, 450 hp, 1250 lb-ft, W/OBD, EPA 2027,	NFPA	1.00	0.00	0.00
0816093	ClearSky Telematics, Remote Fleet & On-scene Management,	NFPA	1.61	0.00	0.00
0887559	Trans, Allison 6th Gen, 3000 EVS P, w/Prognostics,	NFPA	2.00	2.00	0.00
0889577	Bracket, License Plate & Light, P25 LED, Stainless Brkt	NFPA	0.07	0.00	0.00
0892637	Lights, Cab & Crw Cab Acs Stps, P25, LED w/Bezel, 1Lt Per Step	NFPA	1.00	0.00	0.00
0898734	Light, Front Zone, Wln M6** M6** M6** M6** Q Bzl	NFPA	1.80	5.40	1.80
0647728	Alternator, 430 amp, Delco Remy 55SI	S	0.00	0.00	0.00
Load Totals:			106.38	535.91	412.37

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: 253.00

Alternator Output at Governed Speed: 371.00

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



Electrical Analysis

1/2/2024

Bid #: 952
Desc: Hanford FD (Duplicate 41417)
Customer: HANFORD FIRE DEPARTMENT
Option: Pierce Command Zone, Advanced Electronics & Control System, Impel, WiFi CZT

Job #:
Sales Rep: Young, Dewayne
Organization: Golden State Fire Apparatus, Inc
Type: Multiplexed

Minimum Continuous Load	
Supply:	253.00
Demand:	106.38
Variance:	146.62

Total Connected Load	
Supply:	371.00
Demand:	350.75
Variance:	20.25

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

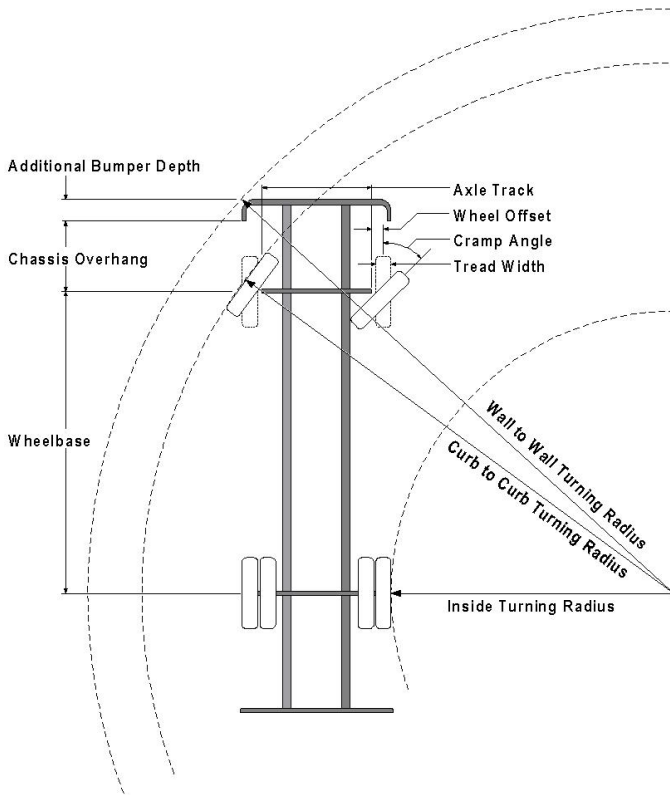


Turning Performance Analysis

01/02/2024

Bid Number: 952
Department: HANFORD FIRE DEPARTMENT

Chassis: Impel Chassis, PUC-NG
Body: Pumper, PUC, Aluminum



Parameters:

*Inside Cramp Angle:	45°
Axle Track:	82.92 in.
Wheel Offset:	4.68 in.
Tread Width:	15.9 in.
Chassis Overhang:	78 in.
Additional Bumper Depth:	10 in.
Front Overhang:	88 in.
Wheelbase:	176.5 in.

Calculated Turning Radii:

Inside Turn:	13 ft. 8 in.
Curb to curb:	27 ft. 2 in.
Wall to wall:	31 ft. 7 in.

Category	Option	Description
Axle, Front, Custom	0508848	Axle, Front, Oshkosh TAK-4, Non Drive, 19,500 lb, Imp/Vel
Bumpers	0123622	Bumper, 10" Extended, Imp/Vel
Tires, Front	0887447	Tires, Front, Michelin, X Multi HL Z , 385/65R22.50, Fire Service Speed Rtnng
Wheels, Front	0019611	Wheels, Front, Alcoa, 22.50" x 12.25", Aluminum, Hub Pilot

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.



4 PRODUCT WARRANTIES

Exhibit "C"



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

Three (3) Year Material and Workmanship Velocity and Impel Custom Chassis

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:	Three (3) Years, or 30,000 Miles, or 5000 Engine Hours
Conditions and Exclusions: See Also Paragraphs 2 thru 4	This limited warranty applies, where applicable, to Goldstar lamination, defroster heater coil and motor blower assembly (excluding the FET PWM module), heater, air conditioning condenser coil and fan/motor assembly, air conditioning evaporator coil and motor blower assembly (excluding the drain pan pump and thermostat), under seat heaters coil and motor blower assembly (excluding the FET PWM module), HVAC electronic switches, HVAC hoses and hard lines, heater water valve, Pierce PS6 seat frames and hardware, Pierce One-Eleven mirrors, Pierce hands-free scba holder, cracking or color loss of roto-molded components, Meritor rear axle, Wabco ABS system, cab door handles, Standen spring suspension components, and the gauge instrument cluster.

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.



Cummins Warranty

Worldwide

Fire Apparatus/Crash Trucks



Coverage

Products Warranted

This Warranty applies to new diesel Engines sold by Cummins and delivered to the first user on or after April 1, 2007, that are used in fire apparatus truck and crash truck* applications Worldwide.

Base Engine Warranty

The Base Engine Warranty covers any failures of the Engine which result, under normal use and service, from a defect in material or factory workmanship (Warrantable Failure). This Coverage begins with the sale of the Engine by Cummins and ends five years or 100,000 miles (160,935 kilometers), whichever occurs first, after the date of delivery of the Engine to the first user.

Engine aftertreatment components included in the Cummins Critical Parts List (CPL) and marked with a Cummins part number are covered under Base Engine Warranty.

Additional Coverage is outlined in the Emission Warranty section.

These Warranties are made to all Owners in the chain of distribution and Coverage continues to all subsequent Owners until the end of the periods of Coverage.

Cummins Responsibilities

Cummins will pay for all parts and labor needed to repair the damage to the Engine resulting from a Warrantable Failure.

Cummins will pay for the lubricating oil, antifreeze, filter elements, belts, hoses and other maintenance items that are not reusable due to the Warrantable Failure.

Cummins will pay for reasonable labor costs for Engine removal and reinstallation when necessary to repair a Warrantable Failure.

Cummins will pay reasonable costs for towing a vehicle disabled by a Warrantable Failure to the nearest authorized repair location. In lieu of the towing expense, Cummins will pay reasonable costs for mechanics to travel to and from the location of the vehicle, including meals, mileage and lodging when the repair is performed at the site of the failure.

Owner Responsibilities

Owner is responsible for the operation and maintenance of the Engine as specified in Cummins Operation and Maintenance Manuals. Owner is also responsible for providing proof that all recommended maintenance has been performed.

Before the expiration of the applicable Warranty, Owner must notify a Cummins distributor, authorized dealer or other repair location approved by Cummins of any Warrantable Failure and make the Engine available for repair by such facility. Except for Engines disabled by a Warrantable Failure, Owner must also deliver the Engine to the repair facility.

Service locations are listed on the Cummins Worldwide Service Locator at cummins.com.

Owner is responsible for the cost of lubricating oil, antifreeze, filter elements and other maintenance items provided during Warranty repairs unless such items are not reusable due to the Warrantable Failure.

Owner is responsible for communication expenses, meals, lodging and similar costs incurred as a result of a Warrantable Failure.

Owner is responsible for non-Engine repairs and for "downtime" expenses, cargo damage, fines, all applicable taxes, all business costs and other losses resulting from a Warrantable Failure.

Owner is responsible for a \$100 (U.S. Dollars) deductible per each service visit under this plan in the 3rd, 4th and 5th years of Base Engine Warranty. The deductible will not be charged during the first 2 years of the Base Engine Warranty.

Limitations

Cummins is not responsible for failures or damage resulting from what Cummins determines to be abuse or neglect, including, but not limited to: operation without adequate coolants or lubricants; overfueling; overspeeding; lack of maintenance of lubricating, cooling or intake systems; improper storage, starting, warm-up, run-in or shutdown practices; unauthorized modifications of the Engine.

Any unauthorized modifications to the aftertreatment could negatively effect emissions certification and void Warranty.

Cummins is also not responsible for failures caused by incorrect oil, fuel or diesel exhaust fluid or by water, dirt or other contaminants in the fuel, oil or diesel



exhaust fluid.

This Warranty does not apply to accessories supplied by Cummins which bear the name of another company. Such non-warranted accessories include, but are not limited to: alternators, starters, fans, air conditioning compressors, clutches, filters, transmissions, torque converters, vacuum pumps, power steering pumps, fan drives and air compressors. Cummins branded alternators and starters are covered for the first two years from the date of delivery of the Engine to the first user, or the expiration of the Base Engine Warranty, whichever occurs first.

Failures resulting in excessive oil consumption are not covered beyond the duration of the Coverage or 100,000 miles (160,935 kilometers) or 7,000 hours from the date of delivery of the Engine to the first user, whichever of the three occurs first. Before a claim for excessive oil consumption will be considered, Owner must submit adequate documentation to show that consumption exceeds Cummins published standards.

Failures of belts and hoses supplied by Cummins are not covered beyond the first year from the date of delivery of the Engine to the first user or the duration of the Warranty, whichever occurs first.

Parts used to repair a Warrantable Failure may be new Cummins parts, Cummins approved rebuilt parts or repaired parts. Cummins is not responsible for failures resulting from the use of parts not approved by Cummins.

A new Cummins or Cummins approved rebuilt part used to repair a Warrantable Failure assumes the identity of the part it replaced and is entitled to the remaining Coverage hereunder.

Cummins Inc. reserves the right to interrogate Electronic Control Module (ECM) data for purposes of failure analysis.

CUMMINS DOES NOT COVER WEAR OR WEAROUT OF COVERED PARTS.

CUMMINS IS NOT RESPONSIBLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

THIS WARRANTY AND THE EMISSION WARRANTY SET FORTH HEREINAFTER ARE THE SOLE WARRANTIES MADE BY CUMMINS IN REGARD TO THESE ENGINES. CUMMINS MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OR OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Emission Warranty

Products Warranted

This Emission Warranty applies to new Engines marketed by Cummins that are used in the United States** in vehicles designed for transporting persons or property on a street or highway. This Warranty applies to Engines delivered to the first user on or after September 1, 1992.

Coverage

Cummins warrants to the first user and each subsequent purchaser that the Engine is designed, built and equipped so as to conform at the time of sale by Cummins with all U.S. federal emission regulations applicable at the time of manufacture and that it is free from defects in material or factory workmanship which would cause it not to meet these regulations within the longer of the following periods: (A) Five years or 100,000 miles (160,935 kilometers) of operation, whichever occurs first, as measured from the date of delivery of the Engine to the first user or (B) The Base Engine Warranty.

If the vehicle in which the Engine is installed is registered in the state of California, a separate California Emission Warranty also applies.

Limitations

Failures, other than those resulting from defects in material or factory workmanship, are not covered by this Warranty.

Cummins is not responsible for failures or damage resulting from what Cummins determines to be abuse or neglect, including, but not limited to: operation without adequate coolants or lubricants; overfueling; overspeeding; lack of maintenance of lubricating, cooling or intake systems; improper storage, starting, warm-up, run-in or shutdown practices; unauthorized modifications of the Engine.

Any unauthorized modifications to the aftertreatment could negatively effect emissions certification and void Warranty.

Cummins is also not responsible for failures caused by incorrect oil, fuel or diesel exhaust fluid or by water, dirt or other contaminants in the fuel, oil or diesel exhaust fluid.

Cummins is not responsible for non-Engine repairs, "downtime" expenses, cargo damage, fines, all applicable taxes, all business costs or other losses resulting from a Warrantable Failure.

**CUMMINS IS NOT RESPONSIBLE FOR INCIDENTAL
OR CONSEQUENTIAL DAMAGES.**

* Airport operated crash trucks and fire department
operated trucks employed to respond to fires,
hazardous material releases, rescue and other
emergency-type situations.

** United States includes American Samoa, the
Commonwealth of Northern Mariana Islands, Guam,
Puerto Rico and the U.S. Virgin Islands.



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Columbus, IN 47202-3005
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R. H. SHEPPARD CO., INC.
101 Philadelphia St.
Hanover, PA 17331
Pierce Manufacturing Inc.
2600 American Drive
Appleton, WI 54912

LIMITED WARRANTY: The R. H. Sheppard Co. Inc., ("Sheppard") warrants all M110PKG1 and M110SAU1 steering gears manufactured and sold to Pierce Manufacturing Inc. ("Pierce") for application on Pierce TAK-4 equipped vehicles to be free from defects of workmanship and material under normal use and service for a period of thirty six months from the in service date of the vehicle to its original owner.

Vehicle applications where Sheppard product is used require an application approval before production build. If Pierce uses Sheppard product for any purpose or application which has not been approved by Sheppard in advance, including aftermarket devices (defined as a device added to the steering system directly or indirectly affecting the performance or operation of the Sheppard product in its approved application) not tested and approved by Sheppard this limited warranty **SHALL NOT APPLY AND SHALL BE VOID. SHEPPARD MAKES NO OTHER WARRANTY, EITHER EXPRESS OR IMPLIED. SHEPPARD EXPRESSLY DISCLAIMS ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR USE OR PURPOSE WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF.** **SHEPPARD SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES OR FOR LOSS OR DAMAGE DIRECTLY OR INDIRECTLY ARISING FROM THE USE OF A PRODUCT.** Pierce expressly acknowledges its obligation to inform all users (customers) of the above disclaimer.

CONDITIONS: Claims under this Limited Warranty may only be made by Pierce. In no event shall Sheppard be held liable for warranty charges by unauthorized persons. No allowance will be made for repairs or alterations, unless made with the written consent of Sheppard. Authorized Pierce dealers shall be the only authorized repair facility for Sheppard products applied to Pierce vehicles. Any warrantable repair made under this Limited Warranty must be made on or before 36 months of the in-service date for the Product to which the claim relates. Sheppard shall not be liable for claims made after such date. Sheppard product fitted to Pierce vehicles that are repaired at a repair facility other than an authorized Pierce dealer within the warranty period will be considered for payment under the guidelines of this agreement only by joint written consideration of Sheppard and Pierce warranty departments. It shall be the responsibility of the Pierce warranty department to notify Sheppard if and when this situation occurs. Sheppard will not be held responsible for damage to other steering components such as but not limited to pumps and reservoirs due to improper adjustment of steering gear relief plungers. Vehicle downtime and towing will not be considered under warranty.

REMEDIES: The sole and exclusive remedy of Pierce for Sheppard's breach of the foregoing warranty is limited to the return and repair or reimbursement as follows:

R. H. SHEPPARD CO., INC. WARRANTY
Pierce Manufacturing Inc.
Page 2

Warranty Support: In support of the Pierce dealer network, Sheppard will provide a toll-free "Hotline" service to assist in the diagnosis and troubleshooting of steering problems. The R. H. Sheppard Co., Inc. Field Service Department can be reached at 1-800-274-7437 for assistance. Sheppard will require that Pierce dealers contact this toll-free "Hotline" for approval before product is removed from a vehicle in a warranty situation. When contacted regarding a warranty situation, the Sheppard representative will provide an authorization number for removal of the product. This Returned Goods Authorization (RGA) number must be included in all warranty correspondence and attached to all returned goods.

Procedure: In the event of a warranty situation, the servicing dealer shall contact the Sheppard Hotline and receive an RGA number before replacing any steering gear. For M110PKG1 and M110SAU1 steering gear models, the dealer will first obtain an RGA number from Sheppard, and then order the replacement gear from Pierce. Replacement M110PKG1 and M110SAU1 steering gears shall be shipped from Pierce once those models are in full production. A warranty claim for both parts and labor will then be generated by the dealer and sent to Pierce. After reviewing the claim, Pierce will submit it to Sheppard for reimbursement.

Parts Reimbursement: Sheppard agrees to reimburse Pierce at Pierce's purchase price plus 30% mark-up for parts found to be defective within the warranty period. Parts being returned for warranty consideration shall be sent to the R. H. Sheppard Company, 447 E. Middle St., Hanover, PA 17331 ATTN: Warranty Dept. Sheppard's determination as to whether the part is covered by the foregoing warranty is final and conclusive. Sheppard requires the return of complete steering gears only. Individual seals replaced under warranty **should not** be returned unless specifically requested by Sheppard. All parts being returned for warranty consideration must be clearly tagged with all pertinent warranty information including, but not limited to (1) Returned Goods Authorization number (RGA); (2) claim number; (3) date in service; (4) date of failure; (5) mileage; (6) part number; (7) labor hours; (8) dealer labor rate and; (9) dollar amount claimed. Claims submitted without prior authorization are subject to rejection under this agreement.

Labor: Labor to repair Sheppard product found to be defective within the warranty period will be reimbursed at not more than 10 hours per vehicle. Labor shall be reimbursed at the rate of \$85.00 USD per hour for M110PGK1 and M110SAU1 steering gears.

Freight: Pierce will collect M110PGK1 and M110SAU1 warranty material at a designated collection point. Inbound freight to the Pierce collection point will be the responsibility of Pierce. All warranty material should be returned from the Pierce collection point to R. H. Sheppard Co. Freight Collect by a Sheppard-specified common carrier based on location of the Pierce collection point. Sheppard does not require the return of failed seals. Any freight charges incurred for the return of seals will be the responsibility of Pierce. Parts returned for warranty consideration without prior authorization are subject to rejection under this agreement and may be subject to a charge back of inbound freight charges. Parts rejected under this warranty will be returned to Pierce Freight Collect or scrapped by Sheppard at Pierce's discretion.

R. H. SHEPPARD CO., INC. WARRANTY
Pierce Manufacturing Inc.
Page 3

Outside Purchases: Pierce authorized dealers shall be the only outlet for repair, warranty service and parts for Sheppard products applied to Pierce vehicles. Sheppard will not be responsible for consumables such as hoses, belts, fluids, fittings or miscellaneous shop material that may be required for the repair of the product.

Warranty Documentation: Warranty credit memos will be issued monthly to the Pierce Warranty Department. Monthly credit memos will include (1) claim number; (2) part number; (3) parts reimbursement; (4) labor reimbursement; (5) any applicable Pierce reference number and; (6) reason for rejection or acceptance of the claim. Credit memos will be issued in U.S. funds. Debits for warranty claims will not be accepted under this agreement. Claim disposition will constitute the final and conclusive resolution of warranty claims.

Parts Retention: Sheppard will retain parts submitted for warranty consideration for a period of sixty (60) days for any material found to be rejected for warranty. Sheppard will notify Pierce within sixty (60) days of receipt of Sheppard's determination as to whether any such part is covered by this warranty. Warranty reimbursement will be issued within thirty days of receipt of material at Sheppard.

Good-Will Requests: Good-Will requests will be considered jointly between Sheppard and Pierce for equitable compensation.

RECALLS: Sheppard retains the right to review information regarding federal motor vehicle recall and /or product repair programs if Sheppard products fitted to Pierce vehicles are alleged to be non-compliant with federal motor vehicle safety standards. Sheppard retains the right to review any claims of product defect or non-compliance before participating in reimbursement of expenses incurred as a result of alleged non-compliance or defect of its products. Sheppard agrees to negotiate in good faith for the reimbursement of expenses incurred by Pierce for all administrative, material and labor cost and expense associated with any recall where Sheppard product is found to be defective or non-compliant with federal motor vehicle standards.

MISCELLANEOUS: This writing constitutes the full complete and final statement of Sheppard's limited warranty for M110PKG1 and M110SAU1 products sold to Pierce. All prior oral or written correspondence, test data, negotiations, representations, understandings and the like regarding products are merged in this writing and extinguished by it. This limited warranty may not be altered, amended extended or modified except by a writing signed by the President or Vice President of Sheppard. No employee, vendor, dealer, distributor or other representative of Sheppard has authority to make statements to extend, expand, alter or amend the terms of this Limited Warranty. Sheppard expressly disclaims any statements contrary to the Limited Warranty. Sheppard's failure at any time to enforce any of the terms and conditions stated herein shall not constitute a waiver of any provisions herein. This Limited Warranty shall be governed by and construed in accordance with the laws of the Commonwealth of Pennsylvania.

R. H. SHEPPARD CO., INC. WARRANTY
Pierce Manufacturing Inc.
Page 4

Any legal actions which may arise as a result of disputes, controversies or claims arising out of or related to this limited warranty shall be in such forum as Sheppard and Pierce shall agree, or, in the absence of agreement, in a court of appropriate jurisdiction other than in the county in which either party is located. This Limited Warranty shall not be assigned by Pierce.

COOPERATIVE EFFORT: Sheppard and Pierce agree to work cooperatively toward expanding this warranty coverage to a period of sixty months from the in service date. These cooperative efforts shall focus on examining the effects of increased heat generated by 2007 model engines and its impact on the entire power steering system.

AGREEMENT: This agreement is effective April 3, 2006 and may be modified by mutual agreement between Sheppard and Pierce of a signed amendment to be attached to the original Limited Warranty. There are no third party beneficiaries to this Limited Warranty. This warranty agreement applies to Pierce authorized dealers only. It does not encompass any special arrangements that Pierce may now have or that Pierce may enter into, with any other segments of the trucking industry. This warranty agreement does not apply to non-conforming product removed at Pierce assembly plants.

This Limited Warranty agreement between the R. H. Sheppard Co., Inc and Pierce Manufacturing Inc. may be terminated by either party with thirty days written notice prior to termination.

Signed at Pierce Manufacturing Inc., Appleton, WI this _____ day of _____, 2006.

R. H. SHEPPARD CO., INC.

PIERCE MANUFACTURING INC.

Authorized Signature

Authorized Signature

Title

Title



Fire and Rescue Apparatus

Lifetime Fifty (50) Year Structural Integrity

Chassis Frame & Crossmembers

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 and cross members 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.



Fire and Rescue Apparatus

Three (3) Year Material and Workmanship TAK-4 Independent Front Suspension

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 TAK-4 Front Independent Suspension and Steering Gears 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 -or- 30,000 Miles
Conditions and Exclusions: See Also Paragraphs 2 thru 4	This limited warranty excludes brake pads, brake rotors, seal boots and shock absorbers.

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

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:	The Meritor axle shall be covered by Meritor as indicated in the attached Meritor warranty coverage description
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	The exclusions listed in the attached Meritor 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.

6/29/2020 WA0384

MERITOR® COMMERCIAL VEHICLE SYSTEMS

WARRANTY/MODEL YEAR 2020 VEHICLES



MERITOR





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How to Read Warranty Coverage

Number of Years	Mileage (in thousands) Unl=Unlimited	P=Parts Only P&L=Parts & Labor
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Notice:

Models or components that are approved for use by Meritor’s vocational guidelines contained in Meritor Publication TP-9441 for axles, SP-8320 for trailer axles, TP-12126 for drivelines, which are not specifically listed, are warranted for one year, unlimited miles, parts only (1/Unl/P).

Products purchased on an incomplete vehicle (glider) are limited to one year, unlimited miles parts only (1/Unl/P).

Advantage Program

Purchasing additional coverage on select components will continue to safeguard your investment against major repair costs after the initial base coverage expires. You can find out more about the Advantage Program by visiting www.meritor.com or by contacting Meritor at 866-OnTrac1 (866-668-7221).



LINEHAUL WARRANTY INFORMATION

Linehaul Vehicles

■ Bulk Hauler	■ Flatbed	■ Livestock Hauler	■ Refrigerated Freight
■ Chip Hauler (Truck)*	■ General Freight	■ Moving Van	■ Tanker
■ Doubles	■ Grain Hauler	■ Pipe Hauler	■ Triples

* Chip Hauler vehicles require specific axle models listed below and Linehaul condition to be eligible for Linehaul warranty consideration.

Linehaul Typically Is

- High mileage operation (over 60,000 miles/year)
- Well maintained major highways of concrete or asphalt construction
- Greater than 30 miles between starting and stopping

Coverage under Meritor's warranty require that the application of products be properly approved pursuant to OEM and Meritor approvals. Refer to TP-9441 for axles, SP-8320 for trailer axles, TP-12126 for drivelines, and/or contact Meritor regarding specific application approval questions on any product line.

Front Non-Drive Steer Axles – 5/750/P&L

FD-965	FF-967	MFS-12-122B-N	MFS-12-132C-N	MFS-13-122B-N	MFS-13B-122C-N
FF-941	FG-941	MFS-12-122C-N	MFS-12E-132B-N	MFS-13-122C-N	MFS-13B-132B-N
FF-942	FG-943	MFS-12E-122A-N	MFS-12E-132C-N	MFS-13-132B-N	MFS-13B-132C-N
FF-943	MFS-10-122A	MFS-12E-122B-N	MFS-12-143A-N	MFS-13-132C-N	MFS-14-122A-N
FF-944	MFS-10-143A-N	MFS-12E-122C-N	MFS-12E-143A-N	MFS-13-143A-N	MFS-14-124A-N
FF-961	MFS-10-144A-N	MFS-12-124A-N	MFS-12-144A-N	MFS-13-144A-N	MFS-14-143A-N
FF-966	MFS-12-122A-N	MFS-12-132B-N	MFS-13-122A-N	MFS-13B-122B-N	MFS-14-144A-N

Rear Drive Single Axles – 5/750/P&L

RS-19-144/145/A	RS-21-145	RS-23-160
MS-19-14X	RS-21-160	RS-23-161
MS-21-144	MS-23-17X	RS-23-186

Rear Drive Tandem/Tridem Axles – 5/750/P&L

RT-34-144/P/A	MA-40-165	MT-40-14XHE
RT-40-145/A	MA-40-175	MT-40-144/P
RT-40-160/P ^{1,2}	MT-34-14X/P	MT-40-943
RT-46-160/P ^{1,2}	MT-40-14T/P	MT-40-943-SP
RT-46-164EH/P ^{1,2}	MT-40-14X/P	RZ-166 ²
RT-50-160/P ^{1,2}	MT-40-14X/P	RZ-188

Drivelines

RPL	5/500/P, 1/Unl/P&L
MXL	3/350/P, 1/Unl/P&L
155N	1/Unl/P
92N	1/Unl/P

¹ These models required for Chip Hauler and Linehaul warranty consideration.
² Each vehicle must have a Request for Application Recommendation (RAR) approved by Meritor prior to vehicle build. All RARs must identify the chassis number or VIN. Refer to Product Information Letter #303 and #396 for further details.



LINEHAUL WARRANTY INFORMATION

Brake Components

Cam Q Series Trailer Brakes	5/500/P, 1/100/L
Q+ Drum Brake™	5/500/P, 1/Unl/P&L
ASA	5/500/P, 1/Unl/P&L
Hubs/Cast Drums and Other Wheel-end Components	1/Unl/P
Hydraulic Disc Brakes	1/Unl/P
All Other Brakes	1/Unl/P
STEELite X30 Drum Brake™ ²	12-Years or Wearable Life/P
EX+ Air Disc Brake™	5/500/P, 1/Unl/L
EX+ Air Disc Brake Extended Standard Warranty ³	5/500/P&L

¹ Includes: bushing, seal, cam, ASA lubrication and wear coverage of 3/500/P&L.

² Based on stamped wear diameter max.

³ Applies only to MA761 friction material code CD brake assembly i.e. EX225LXXCDXXX

Trailer Axles

Beam and Brackets	5/500/P, 1/100/L
Wheel End Systems ¹	
Standard System ²	1/100/P&L
PreSet by Meritor ³	5/500/P&L
AxlePak5 ⁴	5P/L
AxlePak7 ⁵	7P/L

¹ Includes hub, wheel seals and wheel bearings—all systems require annual inspections and proper documentation to ensure full coverage.

² When installed by Meritor.

³ Requires approved hubcap stating PreSet by Meritor on hubcap face.

⁴ When specified with AxlePak5 wheel end system, coverage on MTIS thru-tee and stator is 5/Unl/P, 1/Unl/L.

⁵ When specified with AxlePak7 wheel end system, coverage on MTIS thru-tee and stator is 7/Unl/P, 1/Unl/L.

(For brake components and ABS coverage, refer to appropriate product warranties.)

TAG/Pusher Axles¹

TQ, TQD, TR, TRD Beam and Brackets	5/750/P&L
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¹ For brake components and ABS Coverage, refer to appropriate product warranties.

Meritor Tire Inflation System

MTIS Components	5/Unl/P, 1/Unl/L
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Trailer Air Suspension Systems

MPA38/40 (Tandem Axle Parallelogram) ¹	
Major Structural Components	5/500/P, 1/100/L
Curbing Damage Warranty ²	5/500/P, 1/100/L
Height Control Valve	1/100/P&L
Shock Absorbers	2/200/P&L
Air Springs	2/200/P, 1/100/L
Bushings	5/P, 3/L
PinLoc Air Controls	1/100/P&L
PinLoc Actuator	3/300/P&L
MPA20 (Single Axle Parallelogram)	
Major Structural Components	5/500/P, 1/100/L
Height Control Valve	1/100/P&L
Shock Absorbers	2/200/P&L
Air Springs	2/200/P, 1/100/L
Bushings	5/P, 3/L
MTA (Trailing Arm)	
Major Structural Components	5/500/P, 1/100/L
Height Control Valve	1/100/P&L
Shock Absorbers	2/200/P&L
Air Springs & Rebound Straps	2/200/P, 1/100/L
Bushings	5/500/P, 3/300/L

¹ Fastener torque coverage is limited to 2/Unl/P&L when torqued by Meritor (For axle and ABS coverage, refer to appropriate product warranties.)

² “Curbing damage” is defined as deformation (bending, buckling, or breakage), caused by sudden impact with a curb or similar fixed object. Damage to the RideSentry slider box (the suspension sliding subframe, consisting of the frame rails, crossmembers, and central A-frame assembly), caused by accidental trailer impact with a curb or similar fixed object, is eligible for warranty coverage. Damage to other components or damage resulting from collision with another vehicle, rollover or fire is not covered under this provision. Warranty is not transferrable to another trailer VIN, and coverage does not apply if the trailer is deemed to be a total loss, scrapped, or otherwise not salvageable.



GENERAL SERVICE WARRANTY INFORMATION

General Service Vehicles

■ Auto Hauler	■ Intercity Coach	■ Pipe Hauler	■ Tanker Trailer
■ Beverage Truck	■ Intermodal Chassis	■ Platform Auto Hauler	■ Tour Bus
■ Chip Hauler	■ Livestock Hauler	■ Rear Engine Integral Coach	■ Wrecker
■ Cross Country Coach	■ Meat Packer	■ Recreational Vehicles	
■ Flatbed	■ Moving Van	■ Refrigerated Freight	
■ Front Engine Commercial Chassis	■ Municipal Truck	■ School Bus	
■ Front Engine Integral Coach	■ Newspaper Delivery	■ Stake Truck	
■ General Freight	■ Pick-Up and Delivery	■ Tanker	

General Service Typically Is

- Lower mileage operations (less than 60,000 miles/year)
- Generally, on-road service (less than 10% off-road)
- An average of three (3) miles between starting and stopping

Coverage under Meritor's warranty require that the application of products be properly approved pursuant to OEM and Meritor approvals. Refer to TP-9441 for axles, SP-8320 for trailer axles, TP-12126 for drivelines, and/or contact Meritor regarding specific application approval questions on any product line.

Front Non-Drive Steer Axles – 2/Unl/P&L

FD-965	FL-943	MFS-8-163B-N	MFS-12E-132B-N	MFS-13-132C-N	MFS-16-143A-N
FF-941	MFS-6-151A-N	MFS-10-122A	MFS-12-132C-N	MFS-13B-132B-N	MFS-18-133A-N
FF-942	MFS-6-153B-N	MFS-10-143A-N	MFS-12E-132C-N	MFS-13B-132C-N	MFS-18-135A-N
FF-943	MFS-6-162B-N	MFS-10-144A-N	MFS-12-143A-N	MFS-13-143A-N	MFS-18-193A-N
FF-944	MFS-6-153C-N	MFS-12-122A-N	MFS-12-144A-N	MFS-13-144A-N	MFS-20-133A-N
FF-946	MFS-6-162C-N	MFS-12E-122A-N	MFS-12E-143A-N	MFS-14-122A-N	MFS-20-135A-N
FF-961	MFS-7-113C-N	MFS-12-122B-N	MFS-13-122A-N	MFS-14-124A-N	MFS-20-192A-N
FF-966	MFS-7-153C-N	MFS-12E-122B-N	MFS-13-122B-N	MFS-14-143A-N	MFS-20-193A-N
FF-967	MFS-7-163C-N	MFS-12-122C-N	MFS-13B-122B-N	MFS-14-144A-N	MFS-22-135A-N
FG-941	MFS-8-113B-N	MFS-12E-122C-N	MFS-13-122C-N	MFS-16-122A-N	MFS-22H-135A-N
FH-941	MFS-8-143A-N	MFS-12-124A-N	MFS-13B-122C-N	MFS-16-133A-N	MFS-22-193A-N
FH-946 ¹	MFS-8-153B-N	MFS-12-132B-N	MFS-13-132B-N	MFS-16-135A-N	MFS-22H-193A-N
FL-941					

¹ Can also be used with reduced steer angles in tag position in Coach Applications.

Front Drive/Non-Drive Steer Axles – 1/Unl/P&L

MX-08-130-FV (FSD-08A)	MX-16-130-FV (FSD-16A)	MX-21-130-SD (SDA-2100)
MX-10-130-FV (FSD-10A)	MX-18-130-FV (FSD-18A)	MX-23-130-FV (FSD-23A)
MX-12-130-FV (FSD-12A)	MX-18-130-SD (SDA-1800)	MX-23-130-SD (SDA-2300)
MX-13-130-FV (FSD-13A)	MX-20-130-FV (FSD-20A)	MX-29-130-FV (FSD-29A)
MX-14-130-FV (FSD-14A)	MX-21-130-FV (FSD-21A)	

Rear Drive Single Axles – 2/Unl/P&L

MS-17-13X	MS-21-14X	RC-23-160	RS-24-160	MS-30-616-SP
MS-17-14X	MS-21-144	RC-23-161	RC-25-160	RS-35-380
MS-19-13X	MS-23-17X	RC-23-162 ¹	RS-26-185	71162
MS-19-14X	RS-21-145/A	RC-23-165 ¹	MS-26-616	71163
RS-17-144/145/A	RS-21-160	RS-23-160	MS-26-616-SP	79163
RS-19-144/145/A	RC-22-145	RS-23-161	RS-30-185	
MS-21-13X	RC-22-145/A	RS-23-186	MS-30-616	

¹ 3/Unl/P&L if PreSet by Meritor.

Rear Drive Tandem/Tridem Axles – 2/Unl/P&L

MT-34-14X/P	MT-40-14XHE	RT-44-145/P	MT-58-616
RT-34-144/P/A	MT-40-144/P	RT-46-169	RT-58-185 ¹
MT-40-14T/P	RT-40-145/A	MT-52-616	MT-70-380
MT-40-14X/P	MT-44-14X/P	RT-52-185 ¹	RZ-188

¹ Each vehicle must have a Request for Application Recommendation (RAR) approved by Meritor prior to vehicle build. All RARs must identify the chassis number or VIN. Refer to Product Information Letter #303 and #396 for further details.

Rear Drive Tandem/Tridem - 3/Unl/P&L

RT-40-160/P	RT-50-160/P
RT-46-160/P	RZ-166
RT-46-164EH/P	

Rear Drive Axles – 1/Unl/P&L

11170	RND-14H
523	RND-16A

Drivelines

RPL	4/400/P, 1/Unl/P&L
MXL	3/350/P, 1/Unl/P&L
155N	1/Unl/P
92N	1/Unl/P

Transmission – 1/Unl/P&L

516	FAT 30
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PTO – 1/Unl/P&L

MPT-318	MPT-526	MPT-1702
MPT-500	MPT-531	MPT-175
MPT-510	MPT-543	MPT-185
MPT-518	MPT-170	MPT-190



GENERAL SERVICE WARRANTY INFORMATION

Brake Components

Cam Q Series Trailer Brakes	3/Unl/P, 1/Unl/L
Cam P ³	2/200/P
Cam	3/Unl/P
Q+ Drum Brake™	3/Unl/P&L
Q+ Drum Brake™ ³	2/200/P&L
ASA	3/Unl/P
ASA ³	2/200/P
Hubs/Cast Drums and Other Wheel-end Components	1/Unl/P
Hydraulic Disc Brakes	1/Unl/P
All Other Brakes	1/Unl/P
STEELite X30 Drum Brake™ ²	12-Years or Wearable Life/P
EX+ Air Disc Brake™	2/Unl/P&L

¹ Includes: bushing, seal, cam, ASA lubrication and wear coverage of 1/Unl/P.

² Based on stamped wear diameter max.

³ Applies to Tour Bus and Cross Country Coach only.

Trailer Axles

Beam and Brackets ¹	5/Unl/P, 1/Unl/L
Wheel End Systems ²	
Standard System ³	1/Unl/P&L
AxlePak ⁴	5/P&L
AxlePak ⁵	7/P&L

¹ 9000 Series is 3/Unl/P, 1/Unl/L

² Includes hub, wheel seals and wheel bearings—all systems require annual inspections and proper documentation to ensure full coverage.

³ When installed by Meritor.

⁴ When specified with AxlePak5 wheel end system, coverage on MTIS thru-tee and stator is 5/Unl/P, 1/Unl/L.

⁵ When specified with AxlePak7 wheel end system, coverage on MTIS thru-tee and stator is 7/Unl/P, 1/Unl/L.

(For brake components and ABS coverage, refer to appropriate product warranties.)

Chassis Axles (2000 Series/ChassiPak)

Beam & Brackets	6/Unl/P, 1/Unl/L
Wheel End Systems ¹	
Standard System	1/Unl/P&L
AxlePak7	7/P&L
Beam and Brackets	7/P, 1/L

¹ Includes hub, wheel seals and wheel bearings—all systems require annual inspections and proper documentation to ensure full coverage.

Trailer Air Suspension Systems

MPA38/40 (Tandem Axle Parallelogram) ¹	
Major Structural Components	5/Unl/P, 1/Unl/L
Curbing Damage Warranty ²	5/500/P, 1/100/L
Height Control Valve	1/Unl/P&L
Shock Absorbers	2/Unl/P&L
Air Springs	2/Unl/P, 1/Unl/L
Bushings	5/P, 3/L
PinLoc Air Controls	1/Unl/P&L
PinLoc Air Actuator	3/Unl/P&L
MPA20 (Single Axle Parallelogram)	
Major Structural Components	5/Unl/P, 1/Unl/L
Height Control Valve	1/Unl/P&L
Shock Absorbers	2/Unl/P&L
Air Springs	2/Unl/P, 1/Unl/L
Bushings	5/P, 3/L
MTA (Trailing Arm)	
Major Structural Components	5/Unl/P, 1/Unl/L
Height Control Valve	1/Unl/P&L
Shock Absorbers	2/Unl/P&L
Air Springs and Rebound Straps	2/Unl/P, 1/Unl/L
Bushings ³	5/Unl/P, 3/Unl/L

(For axle and ABS coverage, refer to appropriate product warranties.)

¹ Fastener torque coverage is limited to 2/Unl/P&L when torqued by Meritor

² "Curbing damage" is defined as deformation (bending, buckling, or breakage), caused by sudden impact with a curb or similar fixed object. Damage to the RideSentry slider box (the suspension sliding subframe, consisting of the frame rails, crossmembers, and central A-frame assembly), caused by accidental trailer impact with a curb or similar fixed object, is eligible for warranty coverage. Damage to other components or damage resulting from collision with another vehicle, rollover or fire is not covered under this provision. Warranty is not transferrable to another trailer VIN, and coverage does not apply if the trailer is deemed to be a total loss, scrapped, or otherwise not salvageable.

³ Raw wood applications 3/Unl/P, 1/Unl/L

TAG/Pusher Axles

TQ, TQD, TR, TRD Beam and Brackets ¹	3/Unl/P, 1/Unl/L
MC14002, MC16003, FH946	2/Unl/P&L

(For brake components and ABS coverage, refer to appropriate product warranties.)

¹ 3/Unl/P&L if sold with PreSet by Meritor.

Meritor® Tire Inflation System

MTIS Components	5/Unl/P, 1/Unl/L
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HEAVY SERVICE/SPECIALTY VEHICLE WARRANTY INFORMATION

Heavy Service/Specialty Vehicle

■ Airport Rescue Fire Fighting (ARFF)	■ Dump	■ Michigan Special Steel Hauler	■ Steel Hauling
■ Airport Shuttle*	■ Equipment Hauling	■ Michigan Special Waste Vehicle	■ Tanker
■ Asphalt Truck	■ Flatbed Trailer Hauler	■ Municipal Dump	■ Tank Truck
■ Block Truck	■ Flatbed Truck	■ Rear Loader (Refuse)	■ Tractors with Pole Trailers
■ Bottom Dump Trailer Combination	■ Fracturing Truck	■ Recycling Truck	■ Tractor/Trailer with Jeeps
■ Cementing Vehicle	■ Front Loader	■ Residential Pick-Up (Refuse)	■ Transfer Dump
■ Commercial Pick-Up	■ Geophysical Exploration	■ Rigging Truck	■ Transfer Vehicle
■ Concrete Pumper	■ Hopper Trailer Combinations	■ Roll-Off	■ Utility Truck
■ Construction Material Hauler	■ Landscaping Truck	■ Scrap Truck	■ Winch Truck
■ Mixer	■ Liquid Waste Hauler	■ Semi-End Dump	
■ Demolition	■ Log Hauling	■ Sewer/Septic Vacuum	
■ Drill Rig	■ Lowboy	■ Shuttle Bus*	
	■ Michigan Special Gravel Trains	■ Side Loader	
	■ Michigan Special Log Hauler	■ Snowplow/Snowblower	

*Commercial chassis only

Heavy Service/Specialty Vehicle Typically Is

- Moderate mileage operation (less than 60,000 miles per year)
- On/Off road vocations (10% or more off-road)
- Moderate to frequent stops/starts (up to 10 stops per mile)

Coverage under Meritor's warranty require that the application of products be properly approved pursuant to OEM and Meritor approvals. Refer to TP-9441 for axles, SP-8320 for trailer axles, TP-12126 for drivelines, and/or contact Meritor regarding specific application approval questions on any product line.

Front Drive/Non-Drive Steer Axles – 2/Unl/P&L

FD-965	FL-941	MFS-10-143A-N	MFS-12-143A-N	MFS-13-144A-N	MFS-18-193A-N	MX-12-120
FF-941	FL-943	MFS-10-144A-N	MFS-12-144A-N	MFS-13-155	MFS-20-133A-N	MX-12-120 EVO
FF-942	MFS-6-151A-N	MFS-12-122	MFS-12-155	MFS-14-122	MFS-20-135A-N	MX-14-120
FF-943	MFS-6-153B	MFS-12E-122	MFS-13-122	MFS-14-124A-N	MFS-20-192A-N	MX-16-120
FF-944	MFS-6-162B	MFS-12-122B-N	MFS-13-122B-N	MFS-14-143A-N	MFS-20-193A-N	MX-18-120
FF-946	MFS-6-162C	MFS-12E-122B-N	MFS-13B-122B-N	MFS-14-144A-N	MFS-22-135A-N	MX-17-140
FF-961	MFS-7-113C-N	MFS-12-122C-N	MFS-13-122C-N	MFS-16-122A-N	MFS-22H-135A-N	MX-19-140
FF-966	MFS-7-153C-N	MFS-12E-122C-N	MFS-13B-122C-N	MFS-16-133A-N	MFS-22-193A-N	MX-21-140
FF-967	MFS-7-163C-N	MFS-12-124A-N	MFS-13-132B-N	MFS-16-135A-N	MFS-22H-193A-N	MX-21-160
FG-941	MFS-8-113B-N	MFS-12-132B-N	MFS-13B-132B-N	MFS-16-143A-N	RF-16-145	MX-23-160
FG-943	MFS-8-153B-N	MFS-12E-132B-N	MFS-13-132C-N	MFS-18-133A-N	RF-21-160	MX-810
FH-941	MFS-8-163B-N	MFS-12-132C-N	MFS-13B-132C-N	MFS-18-135A-N	MX-10-120	
FH-946	MFS-10-122A	MFS-12E-132C-N	MFS-13-143A-N	MFS-18-192A-N	MX-10-120 EVO	

Front Drive/Non-Drive Steer Axles – 1/Unl/P&L

MX-08-130-FV (FSD-08A)	MX-16-130-FV (FSD-16A)	MX-21-130-SD (SDA-2100)
MX-10-130-FV (FSD-10A)	MX-18-130-FV (FSD-18A)	MX-23-130-FV (FSD-23A)
MX-12-130-FV (FSD-12A)	MX-18-130-SD (SDA-1800)	MX-23-130-SD (SDA-2300)
MX-13-130-FV (FSD-13A)	MX-20-130-FV (FSD-20A)	MX-29-130-FV (FSD-29A)
MX-14-130-FV (FSD-14A)	MX-21-130-FV (FSD-21A)	

Rear Drive Single Axles – 2/Unl/P&L

MS-17-14X	RS-21-160	RS-24-160	MS-35-380
RS-17-144/145/A	RC-22-145	RS-25-160	RS-38-380
MS-19-14X	RC-23-160	MS-26-616	RC-25-160
RS-19-144	RH-23-160	MS-26-616-SP	RC-26-633
MS-21-114	RS-23-160	RS-26-185/380	MT-58-616
MS-21-14X	RC-23-161	MS-30-616	MT-58-616-SP
RS-21-145	RS-23-161	MS-30-616-SP	
RS-21-145/A	RS-23-186/380	RS-30-185/380	

Rear Drive Axles – 1/Unl/P&L

11170	RND-14H
523	RND-16A

Drivelines

RPL	3/Unl/P, 1/Unl/P&L
92N	1/Unl/P&L
MXL	1/Unl/P&L

Transmission – 1/Unl/P&L

516
FAT 30

PTO – 1/Unl/P&L

MPT-318	MPT-526	MPT-1702
MPT-500	MPT-531	MPT-175
MPT-510	MPT-543	MPT-185
MPT-518	MPT-170	MPT-190



HEAVY SERVICE/SPECIALTY VEHICLE WARRANTY INFORMATION

Rear Drive Tandem/Tridem Axles – 2/Unl/P&L

MT-34-14X/P	RT-44-145/P	RT-52-185/380 ^{1,2}	MT-70-380
RT-34-144/P/A	RT-46-169	MT-58-616	RZ-188
MT-40-14X/P	RT-58-160	MT-58-616-SP	
RT-40-145/A	MT-52-616	RT-58-185/380 ^{1,2}	
MT-44-14X/P	MT-52-616-SP	RT-70-380	

¹ Axle model designated will vary according to options and variations specified on these axles. Contact Meritor Axle Applications Engineering for details.

² Each vehicle must have a Request for Application Recommendation (RAR) approved by Meritor prior to vehicle build. All RARs must identify the chassis number or VIN. Refer to Product Information Letter #303 and #396 for further details.

Brake Components

Cam P	3/Unl/P
Cam P ³	2/100/P
Cam Cast Plus™	2/100/P&L
Q+ Drum Brake™	3/Unl/P&L
Q+ Drum Brake™ ²	2/100/P&L
ASA	3/Unl/P
ASA ²	2/100/P
Hubs/Cast Drums and Other Wheel-end Components	1/Unl/P
Hydraulic Disc Brakes	1/Unl/P
All Other Brakes	1/Unl/P
EX+ Air Disc Brake	2/100/P&L

¹ Based on stamped wear diameter max.

² Applies to City Bus, Trolley, Shuttle Bus and Airport Shuttle only.

³ Warranty for all non-Meritor ASAs supplied by Meritor for all Heavy Service vocations is 1/100/P.

Rear Drive Tandem/Tridem - 3/Unl/P&L

RT-40-160/P/A ³
RT-46-160/P/A ^{1,3}
RT-46-164EH/P/A ^{2,3}
RT-50-160/P/A ³
RZ-166

¹ U.S. only. Canadian warranty = 1/Unl/P for combination vehicles only.

² Axle model designated will vary according to options and variations specified on these axles. Contact Meritor Axle Applications Engineering for details.

³ Each vehicle must have a Request for Application Recommendation (RAR) approved by Meritor prior to vehicle build. All RARs must identify the chassis number or VIN. Refer to Product Information Letter #303 and #396 for further details.

Meritor Tire Inflation System

MTIS Components	5/Unl/P, 1/Unl/L
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Trailer Air Suspension Systems

MTA (Trailing Arm)	
Major Structural Components ¹	5/Unl/P, 1/Unl/L
Height Control Valve	1/Unl/P&L
Shock Absorbers	2/Unl/P&L
Air Springs	2/Unl/P, 1/Unl/L
Bushings ¹	5/Unl/P, 3/Unl/L

¹ Raw wood applications 3/Unl/P, 1/Unl/L

(For axle and ABS coverage, refer to appropriate product warranties.)

Trailer Axles

Beam and Brackets ¹	5/Unl/P, 1/Unl/L
Wheel End Systems ²	
Standard System ³	1/Unl/P&L

¹ 9000 Series is 3/Unl/P, 1/Unl/L.

² Includes hub, wheel seals and wheel bearings—all systems require annual inspections and proper documentation to ensure full coverage.

³ When installed by Meritor.

(For brake components and ABS coverage, refer to appropriate product warranties.)

Gearboxes – 1/Unl/P&L

MGX-240	MGX-376	MGX-448	MGX-506	MGX-528	MGX-546
MGX-279	MGX-377	MGX-456	MGX-514	MGX-533	MGX-550
MGX-279D	MGX-378	MGX-478	MGX-519	MGX-534	
MGX-280	MGX-380	MGX-480	MGX-520	MGX-536	
MGX-285	MGX-384	MGX-487	MGX-522	MGX-537	
MGX-292	MGX-402	MGX-488	MGX-524	MGX-541	
MGX-314	MGX-413	MGX-505	MGX-527	MGX-545	

Transfer Cases – 1/Unl/P

MTC-4213	MTC-3118-CV (358)	MTC-3209-GV (RTC-60/420)
MTC-4210	MTC-3120-FV (TC-143)	MTC-3209-GV (RTC-60/380)
MTC-4208	MTC-3124 (T-2119)	MTC-3209-GV (MTC-60/420)
MTC-4206-FV (TC-38)	MTC-3205-GV (MTC-25/247)	MTC-3209-GV (MTC-60/380)
MTC-3106-FV (TC-137)	MTC-3205-GV (MTC-25/350)	MTC-3212-CV (315 & 548B)
MTC-3111 (T-2111)	MTC-3205-GV (RTC-25/350)	MTC-3312-FV (TC-270)
MTC-3112-CV (529 & 548C)	MTC-3206-FV (TC-237)	MTC-3220-FC (TC-142)
MTC-3116 (T-2111)	MTC-3206-CS (544)	MTC-2212-CV (306)
MTC-3118-FV (TC-180 & TC-180-23)	MTC-3208-GV (RTC-50)	



FIRE AND EMERGENCY WARRANTY INFORMATION

Fire and Emergency Vehicles

- Aerial Ladder Truck
- Aerial Platform
- Ambulance
- Command Vehicle
- Crash Fire Rescue (CFR)
- Pumper
- Rapid Intervention Vehicle (RIV)
- Tanker

Fire and Emergency Typically Is

- Lower mileage operations (less than 20,000 miles/year)
- Generally, on-road service (less than 10% off-road)
- An average of three (3) miles between starting and stopping

Coverage under Meritor's warranty require that the application of products be properly approved pursuant to OEM and Meritor approvals. Refer to TP-9441 for axles, TP-12126 for drivelines, and/or contact Meritor regarding specific application approval questions on any product line.

Front Non-Drive Steer Axles – 5/Unl/P&L

FL-941	MFS-18-193A-N	MFS-22-135A-N
FL-943	MFS-20-133A-N	MFS-22H-135A-N
MFS-18-133A-N	MFS-20-135A-N	MFS-22-193A-N
MFS-18-135A-N	MFS-20-193A-N	MFS-22H-193A-N

Front Drive Steer Axles – 2/Unl/P&L

MX-19140	MX-21160	MX-23810
MX-21140	MX-23160	

Rear Drive Single Axles – 5/Unl/P&L

RC-23-160	RS-23-186	RS-26-185	RS-25-160
RS-23-160	RS-24-160	RS-30-185	
RS-23-161	RC-25-160	RS-35-380	

¹ 3/Unl/P&L if PreSet by Meritor.

Rear Drive Tandem/Tridem Axles – 5/Unl/P&L

MT-40-14X/P	RT-44-145/P	MT-52-616
MT-40-144/P	RT-46-160/P	RT-52-185 ¹
RT-40-145/A	RT-46-164EH/P	MT-58-616
RT-40-160/P	RT-46-169	RT-58-185 ¹
MT-44-14X/P	RT-50-160/P	MT-70-380

¹ Each vehicle must have a Request for Application Recommendation (RAR) approved by Meritor prior to vehicle build. All RARs must identify the chassis number or VIN. Refer to Product Information Letter #303 and #396 for further details.

Brake Components

Cam	3/Unl/P
Q+ Drum Brake™	3/Unl/P&L
ASA	3/Unl/P
Hubs/Cast Drums and Other Wheel-end Components	1/Unl/P
Hydraulic Disc Brakes	1/Unl/P
All Other Brakes	1/Unl/P
EX+ Air Disc Brake™	2/Unl/P&L

¹ Includes: bushing, seal, cam, ASA lubrication and wear coverage of 1/Unl/P.

Drivelines

RPL	4/400/P, 1/Unl/L
MXL	3/350/P, 1/Unl/L
155N	1/Unl/P
92N	1/Unl/P

Transfer Cases – 1/Unl/P

MTC-4208	MTC-3111 (T-2111)
MTC-4210	MTC-3116 (T-2111)
MTC-4213	MTC-3124 (T-2119)



TRANSIT BUS WARRANTY INFORMATION

Transit Bus Vehicles

- Airport Shuttle
- City Bus
- Commuter Coach
- Shuttle Bus
- Transit Bus
- Trolley

Transit Bus Typically Is

- Moderate mileage operation (less than 50,000 miles per year)
- Moderate to frequent stops/starts (up to 10 stops per mile)

Coverage under Meritor's warranty require that the application of products be properly approved pursuant to OEM and Meritor approvals. Refer to TP-9441 for axles, TP-12126 for drivelines, and/or contact Meritor regarding specific application approval questions on any product line.

Front Drive/Non-Drive Steer Axles – 5/300/P&L

FH-946 MFS-12-155
 FH-941¹ MFS-13-155

¹ Commuter coach only – 2/Unl/P&L

Drivelines

RPL 3/Unl/P, 1/Unl/L
 92N 1/Unl/P&L
 MXL 1/Unl/P&L

Rear Drive Single Axles – 5/300/P&L

RS-23-160 79163 RS-21-160
 RC-23-161 RC-23-162¹
 71163 RC-23-165¹

¹ Commuter coach only – 2/Unl/P&L

Tag Axles – 2/Unl/P&L

MC-14002
 MC-16003
 FH-946

Brake Components

Cam Cast Plus™ 2/100/P&L
 Q+ Drum Brake™¹ 2/100/P&L
 ASA¹ 2/100/P
 Hubs/Cast Drums and
 Other Wheel-end
 Components 1/Unl/P
 All Other Brakes 1/Unl/P
 EX+ Air Disc Brake 2/100/P&L

¹ Applies to City Bus, Trolley, Shuttle Bus and Airport Shuttle only.

Center Non-drive Axles – 5/300/P&L

MC-26000
 71063
 79063



OFF-HIGHWAY SERVICE WARRANTY INFORMATION

Industrial And Off-Highway Service Vehicles

■ Load-On/Load-Off	■ Yard Jockey	■ Specialized Mining	■ Rail Car Mover
■ Port Tractor	■ All-Terrain Crane	■ Excavator	■ Loader
■ Rail Yard Spotter	■ Rough Terrain Crane	■ Compactor	■ Tow Tractor
■ Roll-On/Roll-Off	■ Forestry	■ Fertilizer Spreader	■ Pushback Tractor
■ Stevedoring Tractor	■ Material Handling	■ Snow Blower	
■ Trailer Spotter	■ Specialized Heavy Haul	■ Mining	

Industrial And Off-Highway Service Typically Is

- Low mileage operation
- Low speed vehicle speed restriction
- Vehicles are **not** typically licensed for highway use
- Six (6) starts/stops per mile (typical)

Coverage under Meritor's warranty require that the application of products be properly approved pursuant to OEM and Meritor approvals. Contact Meritor regarding specific application approval questions on any product line.

Drivelines – 1/Unl/P

RPL MXL

Front Non-Drive Steer Axles – 1/Unl/P

FF - 941	MFS-12-144A-N	MFS-18-193A-N
FF - 943	MFS-13-143A-N	MFS-20-133A-N
FF - 961	MFS-13-144A-N	MFS-20-135A-N
FF - 966	MFS-14-143A-N	MFS-20-192A-N
FG - 941	MFS-16-122A-N	MFS-20-193A-N
FG - 943	MFS-16-133A-N	MFS-22-135A-N
FL - 941	MFS-16-135A-N	MFS-22H-135A-N
FL - 943	MFS-16-143A-N	MFS-22-193A-N
FN - 951	MFS-18-133A-N	MFS-22H-193A-N
MFS-12-143A-N	MFS-18-135A-N	MON-ZO FAMILY

Brake Components

Cam P	3/Unl/P
Q+ Drum Brake™	3/Unl/P&L
ASA	3/Unl/P
Hubs/Cast Drums and Other Wheel-end Components	1/Unl/P
Hydraulic Disc Brakes	1/Unl/P
All Other Brakes	1/Unl/P

Planetary Axles – 1/Unl/P

MOB	MOF	MOS	MOZ
MOC	MOG	MOT	
MOD	MOH	MOX	
MOE	MOR	MOY	

Gearboxes – 1/Unl/P&L

MGX-240	MGX-376	MGX-448	MGX-506	MGX-528	MGX-546
MGX-279	MGX-377	MGX-456	MGX-514	MGX-533	MGX-550
MGX-279D	MGX-378	MGX-478	MGX-519	MGX-534	
MGX-280	MGX-380	MGX-480	MGX-520	MGX-536	
MGX-285	MGX-384	MGX-487	MGX-522	MGX-537	
MGX-292	MGX-402	MGX-488	MGX-524	MGX-541	
MGX-314	MGX-413	MGX-505	MGX-527	MGX-545	

Transfer Cases – 1/Unl/P

MTC-4213	MTC-3116 (T-2111)	MTC-3205-GV (RTC-25/350)	MTC-3209-GV (MTC-60/380)
MTC-4210	MTC-3118-FV (TC-180 & TC-180-23)	MTC-3206-FV (TC-237)	MTC-3212-CV (315 & 548B)
MTC-4208	MTC-3118-CV (358)	MTC-3206-CS (544)	MTC-3312-FV (TC-270)
MTC-4206-FV (TC-38)	MTC-3120-FV (TC-143)	MTC-3208-GV (RTC-50)	MTC-3220-FC (TC-142)
MTC-3106-FV (TC-137)	MTC-3124 (T-2119)	MTC-3209-GV (RTC-60/420)	MTC-2212-CV (306)
MTC-3111 (T-2111)	MTC-3205-GV (MTC-25/247)	MTC-3209-GV (RTC-60/380)	
MTC-3112-CV (529 & 548C)	MTC-3205-GV (MTC-25/350)	MTC-3209-GV (MTC-60/420)	



TERMS AND CONDITIONS

Coverage Exclusions

Product Description

All

The cost of any repairs, replacements or adjustments to a covered component (1) associated with noise; (2) resulting from the use or installation of non-genuine Meritor components or materials; (3) due to vibration associated with improper operation or misapplication of drivetrain components; and (4) damage resulting from corrosion.

For axle assemblies supplied by Meritor with suspension and interface brackets designed and/or attached by non-Meritor parties, Meritor warranty coverage does not apply to the brackets, bracket attachment methods, and field issues caused by brackets or bracket attachments to any covered component unless specified in a separate OEM agreement.

Front Axles

King Pin Bushings.

Rear Axles

Self-contained traction equalizers and oil filters. The use of NoSPIN differentials will result in the exclusion of axle shafts from warranty considerations. NoSPIN is a product of Eaton.

ASA

Boot and bushing. Bent, broken, over-torqued, missing or otherwise damaged pawl assemblies.

Cam Brake

Brake lining wear and brake shoe “rust-jacking.”

Disc Brake

Pad wear, rotor wear.

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, unlimited miles parts only (1/Unl/P).

Front Axles

Tie rod and tie rod ends limited to 3-year/300,000-mile or published vocational coverage, whichever is less. Wheel seals, gaskets and wheel bearings are covered for 1 year/unlimited miles if the wheel end equipment is supplied and assembled by Meritor.

Rear Axles

Pinion and through shaft seals limited to 3-year/300,000-mile or published vocational coverage, whichever is less, if yoke is installed by Meritor. If yoke is not installed by Meritor, then Meritor does not warrant pinion seals. Wheel seals, gaskets and wheel bearings are covered for 1 year/unlimited miles if the wheel end equipment is supplied and assembled by Meritor.

Rear Axles

The Meritor® breather part number A-2297-C-8765 with A-3196-J-1336 hose must be used for eligibility of any potential warranty consideration relating to contamination and/or loss of lube in axles.

Cam Brake

Limited to bracket, brake spider and camshaft structural integrity.

STEELite X30

Wearable life is up to the discard diameter of the drum.

Disc Brake

Warranty coverage for boots, seals, bushings and pins is 2/200/P. Warranty coverage for pads is 1/100/P.

Warranty coverage on vehicles with 1,850 lb-ft engine torque and over may be reduced on individual drivetrain components. Contact your Meritor representative for specific details.

TERMS AND CONDITIONS

(1) What is Covered by this Commercial Warranty?

Meritor Heavy Vehicle Systems, LLC 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 in vehicles licensed for on-highway use, will be free from defects in material and workmanship. This warranty coverage begins only after the expiration of the OEM's vehicle warranty for the applicable covered components. 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 elsewhere in this warranty statement.

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. Components (whether new, used or remanufactured) installed as replacements under this warranty are warranted only for the remainder of the original period of time or mileage under the original warranty.

For certain components, coverage requires the use of specific extended drain interval or synthetic lubricants. For further information about lubrication and maintenance, see Meritor publication Maintenance Manual Number I and the applicable Meritor maintenance manual for the product in question. Other conditions and limitations applicable to this warranty are detailed below.

(2) Designation of Vocational Use Required.

To obtain warranty coverage, each Owner must notify Meritor through the OEM new truck and/or trailer dealer of the intended vocational use of the vehicle into which the Meritor 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 directly. Failure to notify Meritor 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 as to the intended vocational use of the vehicle. This notification can be sent directly to Meritor 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's warranty requires that the application of products be properly approved pursuant to OEM and Meritor approvals. Refer to TP-9441 for axles, SP-8320 for trailer axles, TP-12126 for drivelines, and/or contact Meritor regarding specific application approval questions on any product line.

(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?

This warranty does not cover normal wear and tear; nor does it cover a component that fails, malfunctions or is damaged as a result of (I) improper 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), (II) accident, natural disaster, abuse, or improper use (including loading beyond the specified maximum vehicle weight or altering engine power settings to exceed the axle and/or driveline capacity), or (III) improper or insufficient maintenance (including deviation from approved lubricants, change intervals, or lube levels). This warranty does not cover any component or part that is not branded by Meritor. For vehicles that operate full or part time outside of the United States and Canada, a one year, unlimited mileage, parts only warranty (1/Unl/P) will apply.

(5) Remedy.

The exclusive remedy under this warranty shall be the repair or replacement of the defective component at Meritor's option. Meritor reserves the right to require that all applicable failed materials are available and/or returned to Meritor for review and evaluation.

(6) Disclaimer of Warranty.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES OR CONDITIONS, EXPRESSED, IMPLIED OR STATUTORY INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE.

(7) Limitation of Remedies.

In no event shall Meritor 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, or any other losses or costs resulting from a defective covered component.

(8) 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 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 service location. The dealer will inspect the vehicle and contact Meritor for an evaluation of the claim. When authorized by Meritor, the dealer will repair or replace during the term of this warranty any defective Meritor component covered by this warranty.

(9) Entire Agreement.

This is the entire agreement between Meritor and the Owner about warranty and no Meritor employee or dealer is authorized to make any additional warranty on behalf of Meritor. This agreement allocates the responsibilities for component failure between Meritor and the Owner.

Product models, brands, names and trademarks depicted herein are the property of their respective owners and, except where otherwise indicated, are not in any way associated with Meritor Heavy Vehicle Systems, LLC, or any parent or affiliate, thereof.



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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.

WARRANTY

MODEL YEAR 2021 VEHICLES



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.

How to Read Warranty Coverage (Example)

Number of Years	Mileage (in thousands) Unl=Unlimited	P=Parts Only P&L=Parts & Labor
3	300	P

- The standard aftermarket warranty for WABCO products - including WABCO Original parts, WABCO Reman Solutions, ProVia quality aftermarket parts and WABCO retrofit solutions - is one year, parts only from in-service date when purchased from ZF distributor networks or its affiliates and/or subsidiaries.

WABCO

WARRANTY - MODEL YEAR 2021 VEHICLES

LINEHAUL/GENERAL SERVICE WARRANTY INFORMATION

LINEHAUL/GENERAL SERVICE VEHICLES

- Aerial Ladder Truck
- Aerial Platform
- Ambulance
- Auto Hauler
- Beverage Truck
- Bulk Hauler
- Chip Hauler (Truck)
- Cross Country Coach
- Doubles
- Flatbed
- Front Engine Commercial Chassis
- Front Engine Integral Coach
- General Freight
- Grain Hauler
- Intercity Coach
- Intermodal Chassis
- Livestock Hauler
- Meat Packer
- Moving Van
- Municipal Truck
- Pipe Hauler
- Platform Auto Hauler
- Pumper
- Rear Engine Integral Coach
- Recreational Vehicles
- Refrigerated Freight
- School Bus
- Stake Truck
- Tanker
- Tanker Truck
- Triples
- Tour Bus
- Wrecker

LINEHAUL TYPICALLY IS

- High mileage operation (over 60,000 miles/year)
- Well maintained major highways of concrete or asphalt construction

GENERAL SERVICE TYPICALLY IS

- Moderate mileage operations (less than 60,000 miles/year)
- Well maintained public roads (less than 10% off-road)
- Less than three (3) stops per mile

WABCO Components ¹	
Air Management	
Air Brake Valves	1/100/P&L
Trailer Lift Axle Control Valve	
Trailer Control Line Filter ³	
Air Compressors (ALL) ²	2/200/P&L
Air Dryers (ALL)	3/300/P&L
Aerodynamics	
OptiFlow® TrailerSkirt	2/UnU/P
OptiFlow® Trailer Tail and AutoTail	2/UnI/P
Braking Systems	
ABS (Anti-Lock Braking System) Air	3/300/P&L
ABS (Anti-Lock Braking System) Hydraulic	
Electronic Braking System (EBS)	
Electronic Stability Control (ESC)	
Roll Stability Control (RSS)	
Trailer Roll Stability Support (RSS)	
Trailer ABS (Anti-Lock Braking System) ³	
Driveline Suspension Control	
Clutch Controls	2/200/P&L
Leveling Valves	1/100/P&L
OptiRide® Automated Manual Transmission (AMT)	
OptiRide® Electronically Controlled Air Suspension (ECAS)	3/300/P&L

WABCO Components ¹ (cont.)	
Safety	
OnGuardACTIVE®	3/300/P&L
OnLane®	
OnLaneALERT®	
OnSide®	
Trailer SafeStart™	
Trailer TailGUARD™	
Telematics	
TrailerCAST™ Telematics Device	3/300/P&L
Wheel End Solutions	
EasyFit™ Slack Adjuster	6/600/P
MAXXUS™ Truck Air Disc Brake	5/500/P&L
IVTM - Wheel Module	6/P
IVTM - All Other Products	2/P
Pan 17 and 19 Air Disc Brake	2/Unl/P and 1/Unl/L
Pan 22 Air Disc Brake	5/500/P and 1/L
TRISTOP™ D Actuator w/ IBV or IRB	6/600/P
TRISTOP™ D Actuator	3/300/P
UNISTOP™ Actuator	2/200/P
Trailer MAXX22T™ Air Disc Brake	5/500/P and 1/L

¹ ZF and WABCO branded components. ² WABCO compressors installed on Cummins, Mercedes, and DDC engines are not warranted or serviced by ZF. Please contact your respective dealer/distributor of those engines for warranty and servicing. ³ An extended warranty of 4/400/P will apply when a WABCO Trailer Control Line Filter is used in combination with a WABCO Trailer ABS valve.

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



WABCO Components ¹	
Air Management	
Air Brake Valves	1/100/P&L
Air Compressors (ALL) ²	
Air Dryers (ALL)	
Trailer Control Line Filter ³	
Braking Systems	
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)	
Trailer ABS Valve ³	
Roll Stability Control (RSS)	
Trailer Roll Stability Support (RSS)	
Driveline Suspension Control	
OptiRide® Electronically Controlled Air Suspension (ECAS)	2/200/P&L
Leveling Valves	1/100/P&L
Clutch Controls	2/200/P&L
Safety	
OnGuardACTIVE®	3/300/P&L
OnLane®	
OnLaneALERT®	
OnSide®	
Trailer SafeStart™	
Trailer TailGUARD™	
Telematics	
TrailerCAST™ Telematics Device	3/300/P&L
Wheel End Solutions	
EasyFit™ Slack Adjuster	2/200/P
MAXXUS™ Air Disc Brake	1/Unl/P&L
IVTM - Wheel Module	6/P
IVTM - All Other Products	2/P
Pan 22, 19 and 17 Air Disc Brake	1/Unl/P&L
Trailer MAXX22T™	1/Unl/P&L
TRISTOP™ D Actuator w/ IBV	3/Unl/P
TRISTOP™ D Actuator	2/200/P
UNISTOP™ Actuator	1/100/P

¹ ZF and WABCO branded components. ² WABCO compressors installed on Cummins, Mercedes, and DDC engines are not warranted or serviced by ZF. Please contact your respective dealer/distributor of those engines for warranty and servicing. ³ An extended warranty of 4/400/P will apply when a WABCO Trailer Control Line Filter is used in combination with a WABCO Trailer ABS valve.

INDUSTRIAL/OFF-HIGHWAY SERVICE WARRANTY INFORMATION

INDUSTRIAL AND OFF-HIGHWAY SERVICE TYPICALLY IS

- Low mileage operation³
- Vehicles are not typically licensed for highway use

Market	Common Application Types
Agriculture	Fertilizer Spreader, Tractor, Heavy Duty Ag Trailers, Harvester, Sprayer, Skid Loader, Silage Bagger, Slurry Wagons, Grain Cart
Airport Support	Pushback Tractor, Towing Tugs, Aircraft Tow Tractor, Refueling Trucks, Food Service Trucks, Baggage Tractors, De-Icing Equipment, Runway Clearing Equipment
Construction	All-Terrain Crane, Rough Terrain Crane, Excavator, Compactor, Wheel Loader, Road Roller, Motor Grader, Articulated Dump Truck, Rubber Tire Road Roller, Backhoe Loaders, Haul Trucks, Scraper Rough Terrain Forklifts, Trenchers, Drills
Forestry	Logging Forwarder, Kidder, Loaders, Yard Forklifts, Harvesters Fellers
Material Handling	Port Tractor, Rail Yard Spotter, Stevedoring Tractor, Trailer Spotter, Yard Jockey, Scissor Lift, Straddle Carrier, Manlift, Forklift, Boom Lift Telehandlers, Aerial Work Platforms
Mining	Specialized Mining, Excavator, Haul Truck, Underground Loader, Service Trucks, Wheel Loaders, Scrapers, Load Haul Dumps, Personnel Transports, Bolters, Scalpers
Municipal	Street Sweeper, Utility Tractor, Utility Trucks, Tree Trimmers, Dump Trucks, Tow Trucks, Flat Bed Trucks, Winch Applications
Oil & Gas	Fracturing Trailer, Injector Heads, Top Drives, Jack/Lift Boats, Wireline Trucks, Load-On / Load-Off
Rail	Railcar Mover, Track Layers, Grinders, Platform Crane, Locomotive Railcars, Ballast Equipment, Winch Applications



WABCO Components ¹	
Air Management	
Air Brake Valves	2/Unl/P
Air Compressors (ALL)2	
Air Dryers (ALL)	
Brake Actuation	
Air/Hydraulic Actuators	2/Unl/P
Master Cylinders	
Remote Actuators	
Slave and Wheel Cylinders	
Two Fluid Actuators	
Brake Locks	
Brake Locks (ALL)	2/Unl/P
Electric Brake Locks	
Lever Locks	
Braking Systems	
ABS (Anti-Lock Braking System) Air	1/100/P&L
ABS (Anti-Lock Braking System) Hydraulic	
Driveline Suspension Control	
Clutch Controls	1/100/P&L
Leveling Valves	
Electrohydraulics & Controls	
Electronic Pedals	2/Unl/P
Electrohydraulic Brake Valves (EBV)	
Pressure Switches	
Hydraulic Braking Solutions	
Accumulator Charging Valves	2/Unl/P
Hydraulic Throttle Controls and Switches	
Modulating Brake Valves	
Wheel End Solutions	
EasyFit™ Slack Adjuster	2/200/P
Caliper Disc Brakes	2/Unl/P
MAXXUSTM Air Disc Brake	1/Unl/P&L
Multiple Disc Brakes	2/Unl/P
IVTM - Wheel Module	6/P
IVTM - All Other Products	2/P
Pan 22, 19 and 17 Air Disc Brake	1/Unl/P&L
TRISTOPTM D Actuator w/ IBV	3/Unl/P
TRISTOPTM D Actuator	2/200/P
UNISTOPTM Actuator	1/100/P

¹ ZF and WABCO branded components. ² WABCO compressors installed on Cummins, Mercedes, and DDC engines are not warranted or serviced by ZF. Please contact your respective dealer/distributor of those engines for warranty and servicing. ³ Equivalent hours of service limit: 2,000 hours for all components.

TERMS AND CONDITIONS

COVERAGE EXCLUSIONS

PRODUCT DESCRIPTION

ALL PRODUCTS

This Warranty shall not apply to the following, but not limited to: (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, damaged threads, cut, broken, chafed, pinched or otherwise damaged wiring (sensors, harnesses and connectors), (b) sensors damaged during removal when seized in block, or associated with sensor adjustments/ alignments, and (c) damage resulting from the use or installation of non-genuine 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 WABCO name plate, serial numbers or label identifying the device as a ZF 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 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 PRODUCTS

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 PLUS™ DIAGNOSTIC SOFTWARE

Proper diagnostics of WABCO Electronics may require the latest version of TOOLBOX PLUS™. Additional labor due to use of an outdated version of TOOLBOX™ software and/or the time to purchase or install the latest version of TOOLBOX PLUS™ are not covered under product warranty.

WARRANTY - MODEL YEAR 2021 VEHICLES

TERMS AND CONDITIONS

(1) What is Covered by this Commercial Warranty?

ZF CV Systems North America LLC and its North American subsidiaries and affiliates (ZF) warrant 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 distribution agreements 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 ZF'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 ZF warranty has not expired under the terms stated above, the ZF warranty will 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 ZF distributor networks 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 ZF through the OEM new truck and/or trailer dealer of the intended vocational use of the vehicle into which the 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 ZF directly. Failure to notify ZF 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 ZF as to the intended vocational use of the vehicle. This notification can be sent directly to ZF 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 ZF's warranty requires that the application of products be properly approved pursuant to OEM and ZF, 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 "Coverage Exclusions," 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 ZF, (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 ZF.

(5) 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 ZF or the dealer from which the vehicle was purchased. To obtain service, the vehicle must be taken to any participating OEM dealer or ZF distributor networks' servicer. The dealer or ZF authorized servicer will inspect the vehicle and contact ZF for an evaluation of the claim. When authorized by ZF, the dealer or ZF authorized servicer will repair or replace during the term of this warranty any defective WABCO component covered by this warranty.

(6) Disclaimer of Warranty and Limitation of remedies. TO THE MAXIMUM EXTENT PERMITTED BY LAW, THE LIMITED WARRANTY SET FORTH HEREIN IS EXCLUSIVE AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, ARISING BY OPERATION OF LAW OR OTHERWISE, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND/OR WARRANTY FOR HIDDEN OR LATENT DEFECTS, AND IN NO EVENT WILL ZF OR ANY OF ITS AFFILIATES BE LIABLE FOR DIRECT, INDIRECT, INCIDENTAL, PROGRESSIVE, SPECIAL, OR CONSEQUENTIAL DAMAGES OF ANY KIND.

- (7) 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. Any dispute arising in connection with this agreement shall be governed by and construed according to the laws of the State of Michigan and be brought, heard and determined exclusively in either the Circuit Court for the County of Oakland, State of Michigan or the United States District Court for the Eastern District of Michigan. The parties stipulate that the referenced venues are convenient.
- (8) Remedy. The exclusive remedy under this warranty shall be the repair or replacement of the defective component at ZF's option. ZF reserves the right to require that all applicable covered components are available and/or returned to ZF for review and evaluation. THE MAXIMUM LIABILITY, IF ANY, OF ZF FOR ALL DAMAGES, INCLUDING WITHOUT LIMITATION CONTRACT DAMAGES, BREACH OF WARRANTY, NEGLIGENCE, STRICT LIABILITY, OR OTHER TORT, IS LIMITED TO AN AMOUNT NOT TO EXCEED THE PURCHASE PRICE OF THE PRODUCT and where indicated in the product and application warranty information above, the inclusion of labor is limited to the standard repair time. THE PARTIES ACKNOWLEDGE AND AGREE THAT THE LIMITATION OF DAMAGES PROVISION SET FORTH IN THIS PARAGRAPH SURVIVES BETWEEN THE ORIGINAL END USER AND ZF EVEN IF THE EXCLUSIVE REMEDY SET FORTH ABOVE IS DEEMED TO FAIL OF ITS ESSENTIAL PURPOSE. ZF may change the design or make improvements to its Products without incurring any warranty obligation for previously manufactured Product .
- (9) Entire Agreement. This is the entire agreement between ZF and the Owner about warranty and no, ZF employee, or dealer is authorized to make any additional warranty on behalf of ZF unless in writing and signed by an authorized representative of ZF.





**For further product details contact your distributor or the
WABCO Customer Care Center at 855-228-3203.**

About ZF Friedrichshafen AG

ZF is a global technology company and supplies systems for passenger cars, commercial vehicles and industrial technology, enabling the next generation of mobility. ZF allows vehicles to see, think and act. In the four technology domains Vehicle Motion Control, Integrated Safety, Automated Driving, and Electric Mobility, ZF offers comprehensive solutions for established vehicle manufacturers and newly emerging transport and mobility service providers. ZF electrifies different kinds of vehicles. With its products, the company contributes to reducing emissions and protecting the climate.

ZF, which acquired WABCO Holdings Inc. on May 29, 2020, now has 160,000 employees worldwide with approximately 260 locations in 41 countries. In 2019, the two then-independent companies achieved sales of €36.5 billion (ZF) and \$3.4 billion (WABCO). For more information, visit: www.wabco-na.com



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

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

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

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.



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.

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



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.

UNITED PLASTIC FABRICATING, INC.

WARRANTY

FOR: POLY-TANK®, POLYSIDE®, INTEGRATOR™, ELLIPSE™, ELLIP-T-TANK™ & DEFENDER™

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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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)



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



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.



Fire and Rescue Apparatus

Seven (7) Year Material and Workmanship

PUC-NG Pump

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:	The PUC-NG Pump, integrated pump transmission, 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:	Seven (7) 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, including the integrated pump transmission. 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.

4/21/2022 WA0390



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

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

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



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

5 DEALER SUPPLIED PRODUCTS AND /OR SERVICES

Exhibit "D"

DEALER SUPPLIED PRODUCTS and/or SERVICES

The following items and/or services will be provided by Golden State Fire Apparatus Inc. (GSFA) prior to final delivery:

LICENSED MANUFACTURER

The State of California Vehicle Code, section 11701 requires “every manufacturer of a vehicle subject to registration shall make application to the Department of Motor Vehicles (DMV) for a license containing a general distinguishing number”. The manufacturer has a current license at time of proposal and shall provide a copy upon request. Temporary licenses are not acceptable.

LICENSED DEALERSHIP

The State of California Vehicle Code, section 11701 requires a “dealer in vehicles of a type subject to registration, shall make application to the Department of Motor Vehicles (DMV) for a license containing a general distinguishing number”. Golden State Fire Apparatus, Inc. has a current license at time of bid as outlined above and is available upon request. Temporary licenses are not acceptable.

LICENSED SALES REPRESENTATIVE

The State of California Vehicle Code, section 11800 requires that it shall be “unlawful for any person to function as a vehicle salesperson without having first procured a license issued by the Department of Motor Vehicles (DMV)”. The representative has a current vehicle salesperson’s license at time of proposal and shall provide a copy upon request. Temporary licenses are not acceptable.

VEHICLE REGISTRATION

The State of California Vehicle Code section 11739 requires that the “dealer of a new motor vehicle sale is responsible for applying for the title, securing vehicle registration, and obtaining license plates for the Customer” through the Department of Motor Vehicles (DMV). Golden State Fire Apparatus, Inc. is a factory-authorized dealer of the vehicle being sold and is authorized to register with the State of California as a new vehicle manufacturer.

GSFA will make all necessary applications and complete all transfer papers, including applying for California Exempt “E” license plates.

WEEKLY PROGRESS PHOTOGRAPHS

GSFA will provide weekly photographs of the apparatus or the major components as they are being constructed. The photographs will commence at the start of the manufacturing process and will continue through production by the manufacturer. The reports will show the progress of the apparatus through the course of each week. Special attention will be given to show the unique features and aspects of the apparatus as construction progresses.

PRE-CONSTRUCTION, FACTORY TRIP

A pre-construction trip to the manufacturing facility will be provided for three (3) Customer representative(s). The intent of this trip is to review and finalize, in detail, the specifications prior to the start of production. The pre-construction trip will have a duration of four (4) days and three (3) nights and be scheduled at times mutually agreed upon between GSFA and the Customer. Costs for airfare, lodging, meals, and ground transportation while at the manufacturer’s location will be the responsibility of GSFA. Air travel will be from one of the following airports: Sacramento, San Francisco, or San Jose.

Costs such as Customer ground transportation in California, Customer airport parking, Customer luggage fees and Customer incidentals while traveling to the factory will be the responsibility of the Customer. Flight reservations are non-refundable and in the event of a cancellation after booking, the Customer will be responsible for all costs associated with this cancellation, which may include not only the original ticket cost but also any change or cancellation fees imposed by the airline and/ or travel agency. Flight reservations are also non-transferable.

FINAL INSPECTION, FACTORY TRIP

A final inspection trip to the manufacturing facility will be provided for three (3) Customer representative(s). The intent of this trip is to ensure that the apparatus is built to specification and to detect any deficiencies that require correction. The final inspection trip will have a duration of four (4) days and three (3) nights and be scheduled at times mutually agreed upon between GSFA and the Customer. Costs for airfare, lodging, meals, and ground transportation while at the manufacturer's location will be the responsibility of GSFA. Air travel will be from one of the following airports: Sacramento, San Francisco, or San Jose.

Costs such as Customer ground transportation in California, Customer airport parking, Customer luggage fees and Customer incidentals while traveling to the factory will be the responsibility of the Customer. Flight reservations are non-refundable and in the event of a cancellation after booking, the Customer will be responsible for all costs associated with this cancellation, which may include not only the original ticket cost but also any change or cancellation fees imposed by the airline and/ or travel agency. Flight reservations are also non-transferable.

DELIVERY TO AUTHORIZED SERVICE FACILITY

GSFA will, at their expense, deliver the apparatus (including any applicable equipment, spare parts, and supplies) to their Northern California facility in Sacramento for a dealer preparation inspection.

To ensure proper break-in of all components while still under warranty, the apparatus shall be delivered under its own power - rail or truck freight shall not be acceptable.

PRE-DELIVERY SERVICE

After transportation from the factory and prior to delivery, the apparatus will receive a pre-delivery service to confirm proper operation and correction of any issues found as a result of said inspection. The Golden State Fire Apparatus, Inc. pre-delivery service consists of the following:

- Engine Compartment and Undercarriage – Check for any broken mounting brackets and inspect for correct capacities of the following (if applicable): engine oil, coolant, power steering fluid, washer reservoir fluid, transmission fluid, rear end fluid, pump transmission oil, and primer oil.
- Interior – Operate all doors, windows, and locks for proper adjustment. Check upholstery.
- Exterior – Repair reasonable paint scratches or chips. Tighten any loose hardware and inspect tires and wheels for proper pressure and lug torquing.
- Road Test – With the water tank (if applicable) full, the apparatus will be driven approximately twenty miles which allows the drive train components to get up to operating temperature. Road test will be on both city and highway roads. A DOT compliant brake test will be conducted to ensure the system is holding air. The brake condition and wheel seals will also be inspected.

- Electrical - Operate all lights, sirens, and other electrical accessories to verify operation.
- Pump - If applicable, vacuum test the pump to hold for 15 minutes. After vacuum test, operate the relief valve, transfer valve and check pump shift. Check water tank for leaks and inspect water level gauge for calibration. With discharge caps loose, rapid test all individual gauges and main gauges for calibration. Lubricate valve rods.
- Foam System – If applicable, tighten caps and connect foam lines. Test selector, valves, metering valve and operation of foam system (including flush).
- Fuel Tank - Fuel tank will be filled at the dealership location prior to final delivery.
- DEF Tank - DEF tank will be filled at the dealership location prior to final delivery.
- Wash - The apparatus will be thoroughly washed at the dealership location prior to final delivery.

FINAL DELIVERY (CUSTOMER LOCATION)

GSFA will, at their expense, deliver the Product (including any applicable equipment, spare parts, and supplies) to the Customer specified address once completed. Prior to delivery of the Product, Customer agrees to provide proof of liability and physical damage insurance to GSFA. GSFA will not release the Product to the Customer until such proof of insurance is provided.

It is the responsibility of the Customer to have any outstanding balance due, paid in full to GSFA, prior to or at the time that the Product is complete and ready to deliver. If payment is late or delivery is delayed pending payment, a daily finance charge of \$150.00 and a daily storage fee of \$50.00 may apply until such payment is received.

Due to insurance liability, the Product will not be delivered without full acceptance and full payment (or prior written agreement between the Customer and GSFA).

END OF EXHIBIT “D”



AGENDA STAFF REPORT

MEETING DATE: 1/16/2024

AGENDA SECTION: PUBLIC HEARING

SUBJECT:

Public Hearing and consideration of approval of Resolution 24-02-R for City of Hanford water rate adjustments effective February 1, 2024 and continue the public hearing for wastewater and stormwater rates until February 6, 2024.

RECOMMENDATION:

Recommendation: Staff recommends Council hold a Public Hearing and consider approval of Resolution 24-02-R for City of Hanford water rate adjustments effective February 1, 2024 and continue the public hearing for wastewater and stormwater rates until February 6, 2024.

Recommended Motion: I move to adopt Resolution 24-02-R for City of Hanford water rate adjustments effective February 1, 2024 and continue the public hearing for wastewater and stormwater rates until February 6, 2024.

BACKGROUND:

City Council has the authority to approve rate changes when necessary to ensure the continued recovery of costs for services and to secure reinvestment into the system infrastructure for long term sustainability. As part of the recommended approval today, Council would be accepting the "Water, Wastewater, and Stormwater Utility Rate Study 2023", dated November 7, 2023 approving water rates, and continuing the public hearing for wastewater and stormwater rates. Due to correspondence received since notices were sent out related to stormwater rate increases, further review by staff and the City Attorney is recommended before adoption of the wastewater and stormwater rates.

It has been over five years since water rate adjustments. The last water rate increase was July 1, 2018 (adopted in Resolution No. 15-60-R on December 15, 2015). The last sewer/storm rate increase was July 1, 2011 (adopted in Resolution No. 09-77-R on November 17, 2009) over thirteen years ago. Without updating rates the City will not have long term sustainability to keep up with costs of maintenance, capital and increased costs of doing business.

Proposition 218 (Prop 218), approved in 1996, adds Article XIII D (Voter Approval for Local Tax Levies) to the California Constitution. All property-related fees, such as water, wastewater and storm drain fees and charges, must meet Prop 218's requirements. It applies to most utility charges and fees; however, electric and gas utility charges were specifically exempted from the definition of property-related charges in the statute. The City is required to provide notice of proposed increases to the sewer, water and refuse collection service fees and charges to all affected ratepayers and record receipt of all written protests during a public hearing. Prop 218 prohibits increases to fees and

charges if a majority of the affected ratepayers submit written opposition to proposed increases.

The City's consultant, Lechowicz & Tseng Municipal Consultants and staff provided Council with a look at the needs of the water, wastewater and storm drain enterprises at the September 19, 2023 and November 7, 2023 City Council Meetings. After receiving Council direction and authorization to proceed at those meetings, staff and the consultant with review by the City Attorney sent out notification to all landowners and utility customers within the City as required by the Proposition 218 process.

Utility operations in water, sewer and storm drain are self-supporting enterprise funds that provide services for a fee. Charges for service through rates are the primary source of funding for operations and also fund a significant portion of the capital improvement program which includes the debt service (principal and interest) for bonds issued to fund these projects. Developer fees are the other funding source for capital projects. However, impact fees paid by developers are legally limited to addressing the impacts caused by the impacts of the developers' projects. For example, a project's impact fees may not be utilized to address normal wear and tear to infrastructure improvements that are not caused by that project.

The City's utilities are faced with many current and future challenges including aging infrastructure, preserving groundwater supply, adapting to changing water and wastewater quality regulations, and increased operational and capital costs. A growing proportion of Hanford's utility infrastructure is aging beyond its expected useful life. For example, the expected useful life of water distribution pipeline is 40 years. Hanford's operational costs are not immune to the impacts of inflation, which increase construction and equipment costs as well. In addition, adequate fund balance must be maintained to maintain applicable bond requirements and sustain operations in event of a fiscal emergency.

Notices by mail and on the City's website were posted before the 45-day notice requirement for the public hearing on January 16, 2024. The proposed rates for water are recommended to go into effect as of February 1, 2024 for the February 2024 utility bill. Attachment 'A' "Water, Wastewater, and Stormwater Utility Rate Study 2023", dated November 7, 2023, includes details on the rates. Subsequent increases would go into effect on July 1 from 2024 through 2027. Wastewater and stormwater rates will be further considered at a continued public hearing on February 6, 2024 with an effective date to be determined.

FISCAL IMPACT:

Rates are proposed to increase as follows:

Water - Year 1: 35%, Year 2: 15%, Year 3: 10%, Year 4 & 5: 5%

(Until approved) Wastewater - Year 1: 35%, Year 2 & 3: 12%, Year 4 & 5: 5%

(Until approved) Storm Drain - Year 1-5: 5%

The proposed five-year water utility rate plan will fund future operating and capital costs, maintain reserve levels and financial metrics that comply with approved fiscal and reserve policies, and maintain current bond ratings to keep current and potential borrowing costs for capital investments low.

ATTACHMENTS:

1. Attachment 'A' - Rate Report Final 11.7.23
2. City of Hanford_8.5x11_Prop 218 Notice_111423
3. RESOLUTION 24-02-R



CITY OF HANFORD

Water, Wastewater, and Stormwater Utility Rate Study 2023

FINAL REPORT
November 7, 2023



LECHOWICZ + TSENG
MUNICIPAL CONSULTANTS

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SECTION 1: INTRODUCTION

1.1 Background

The City of Hanford (City) is located in the southern portion of the San Joaquin Valley and is the county seat of Kings County, California. The City was incorporated in 1891. The City provides water, wastewater, and storm drainage service to a population of over 56,000 residents in addition to businesses and industrial facilities. The water, wastewater, and storm drainage enterprise funds are self-supported from rates and charges and fund the operations and capital project budgets of the Utilities and Wastewater branches of the Public Works Department.

The City Council approved the last formal rate studies in 2015 for the water utility and 2009 for the wastewater and storm drainage utilities. Water rates were last increased July 1, 2018, and wastewater and storm drainage rates were last increased July 1, 2011. Since then, the City has experienced a number of unanticipated changes necessitating a rate reevaluation including COVID-19, economic inflation, and water supply issues as well as the development of new Master Plans for all three utilities.

The City engaged Lechowicz & Tseng Municipal Consultants (L&T) to complete a comprehensive water, wastewater (sewer), and storm drainage (storm) rate study to recommend utility rates that will generate sufficient revenues to recover the full cost of services and ensure the continued financial health of the City's enterprise funds. This rate study covers the five-year period beginning in Fiscal Year (FY) 2023/24 through 2027/28.

1.2 Requirements of Proposition 218

The implementation of utility rates in California is governed by the substantive and procedural requirements of Proposition 218 the "Right to Vote on Taxes Act" which is codified as Articles XIII C and XIII D of the California Constitution. The City must follow the procedural requirements of Proposition 218 for all utility rate increases. These requirements include:

1. **Noticing Requirement** – The City must mail a notice of the proposed rate increases to all affected property owners or ratepayers. The notice must specify the amount of the fee, the basis upon which it was calculated, the reason for the fee, and the date/time/location of a public rate hearing at which the proposed rates will be considered/adopted.
2. **Public Hearing** – The City must hold a public hearing prior to adopting the proposed rate increases. The public hearing must be held not less than 45 days after the required notices are mailed.
3. **Rate Increases Subject to Majority Protest** – At the public hearing, the proposed rate increases are subject to majority protest. If more than 50% of affected property owners or ratepayers submit written protests against the proposed rate increases, the increases cannot be adopted.

Proposition 218 also established substantive requirements that apply to water, wastewater, and storm rates and charges, including:

1. **Cost of Service** – Revenues derived from the fee or charge cannot exceed the funds required to provide the service. In essence, fees cannot exceed the “cost of service”.
2. **Intended Purpose** – Revenues derived from the fee or charge can only be used for the purpose for which the fee was imposed.
3. **Proportional Cost Recovery** – The amount of the fee or charge levied on any customer shall not exceed the proportional cost of service attributable to that customer.
4. **Availability of Service** – No fee or charge may be imposed for a service unless that service is used by, or immediately available to, the owner of the property.
5. **General Government Services** – No fee or charge may be imposed for general governmental services where the service is available to the public at large.

Charges for water, wastewater, and storm service are exempt from additional voting requirements of Proposition 218, provided the charges do not exceed the cost of providing service and are adopted pursuant to the procedural requirements of Proposition 218. In 2017, the State passed Senate Bill 231 clarifying the definition of “sewer” in Proposition 218 to include both sanitary and storm sewer, and thereby exempting storm drain rates from the additional ballot requirement.

1.3 Rate Study Process

This section details the development of the City’s water, wastewater, and storm rates via the Proposition 218 process as shown in the following figure.

Figure 1: Comprehensive Cost of Service Study Process



The following is a brief description of the rate study process:

- **Revenue Requirements** - Revenue requirements are analyzed via financial plans developed from the Water, Wastewater, and Storm Drain Fund budgets. Based on the best information currently available, the financial plans incorporate projected operation and maintenance costs, capital expenditures, debt service, and growth to estimate annual revenue requirements. The plans serve as a roadmap for funding the City's future operating and capital programs while maintaining long-term fiscal stability.
- **Cost of Service Allocation** - The cost of service process builds on the financial plan analysis and assigns water and sewer system costs to functional cost components: *metering and customer service, base, and extra* for water, and *customer service, flow, BOD, and SS* for sewer. Storm drain service costs are allocated to customers based on parcel size and impervious (paved) area.¹

¹ Single family residential (SFR) parcels are proposed to be charged based on average SFR parcel size within the City

- **Rate Design** - Rate design involves developing a rate structure that proportionately recovers costs from customers. Final rate recommendations are designed to (a) fund the utilities' short- and long-term costs of providing service; (b) proportionately allocate costs to all customers and customer classes; and (c) comply with the substantive requirements of Proposition 218.

1.4 Summary of Proposed Rates

The proposed water, wastewater, and storm drain rates were developed to fairly recover costs, adhere to California statute, and be affordable to customers. The rates developed were based on the best available information gathered from City budgets, audits, and input from staff and City Council. The cost allocations proposed herein are based on American Water Works Association methodologies and industry standard practice. The proposed rates are based on the reasonable cost of providing service and are proportional to the benefits received by each customer.

Current and proposed monthly water rates are provided in Table 1. As an update to the current rates, it is proposed that customers be billed the same rates regardless of whether their property is inside the City limits. The projected water rates also include a schedule of drought rates, which would only be implemented during a water shortage emergency.

Table 1: Proposed Monthly Water Rates
City of Hanford
Utility Rate Study

Fiscal Year	Current Rates [1]	PROPOSED				
		FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
<i>Effective Date</i>	<i>July 1, 2018</i>	<i>Feb 1, 2024</i>	<i>July 1, 2024</i>	<i>July 1, 2025</i>	<i>July 1, 2026</i>	<i>July 1, 2027</i>
METER CHARGES						
5/8", 3/4", & 1"	\$15.41	\$17.42	\$19.85	\$21.64	\$22.52	\$23.44
1-1/2" & 2"	\$21.88	\$31.89	\$36.34	\$39.62	\$41.23	\$42.91
3" & 4"	\$34.83	\$95.56	\$108.90	\$118.73	\$123.55	\$128.58
6"	\$54.26	\$292.35	\$333.16	\$363.26	\$378.01	\$393.37
8"	\$80.17	\$465.99	\$531.04	\$579.02	\$602.53	\$627.01
CONSUMPTION CHARGES (\$/CCF)						
All Customers	\$1.34	\$1.94	\$2.24	\$2.44	\$2.54	\$2.64
DROUGHT CONSUMPTION CHARGES (\$/CCF) [2]						
10% Water Cutback		\$2.10	\$2.42	\$2.64	\$2.75	\$2.86
20% Water Cutback		\$2.30	\$2.65	\$2.89	\$3.01	\$3.13
35% Water Cutback		\$2.72	\$3.13	\$3.41	\$3.55	\$3.69
50% Water Cutback		\$3.38	\$3.89	\$4.24	\$4.41	\$4.59

CCF – hundred cubic feet; one hundred cubic feet equals 748 gallons

1 - Current rates shown are for Inside City customers. Inside & Outside City customers are proposed to be billed the same rates going forward. Current meter charges shown are the sum of the service connection charge and the meter fee.

2 - Only to be implemented temporarily during water shortage emergencies.

Current and proposed monthly wastewater rates are provided in Table 2. The proposed monthly storm rates are provided in Table 3. Currently, wastewater and stormwater rates are billed together as a single charge. Of the existing wastewater system charges adopted in the City's Resolution No. 09-77-R, 78.0% of the service charges for each customer are allocated to the wastewater system, and the remaining 22.0% are allocated to the stormwater system. It is recommended that the City levy storm drain charges based on land use type and parcel size to better reflect the proportional cost of service provided to each customers. Single family residential customers are proposed to be billed a fixed fee based on the average parcel size while all other customer types will be charged an individual rate based on their parcel's acreage. Parcels with indeterminate acreage will be billed a minimum charge according to their customer class.

Table 2: Proposed Wastewater Rates
City of Hanford
Utility Rate Study

Customer Class	Current Rates	PROPOSED				
		FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
<i>Effective Date</i>	<i>July 1, 2011</i>	<i>Feb 1, 2024</i>	<i>July 1, 2024</i>	<i>July 1, 2025</i>	<i>July 1, 2026</i>	<i>July 1, 2027</i>
RESIDENTIAL (Per dwelling unit)						
Single Family	\$17.86	\$24.67	\$27.63	\$30.95	\$32.50	\$34.13
Multi-Family/Duplex	\$16.93	\$18.51	\$20.73	\$23.22	\$24.38	\$25.60
NON-RESIDENTIAL						
<u>Metered Water (\$/CCF) [1]</u>						
Group A: Domestic	\$1.54	\$3.08	\$3.45	\$3.86	\$4.05	\$4.25
Group B: Low Strength	\$1.44	\$2.81	\$3.15	\$3.53	\$3.71	\$3.90
Group C: Medium Strength	\$2.15	\$3.95	\$4.42	\$4.95	\$5.20	\$5.46
Group D: High Strength	\$2.88	\$5.34	\$5.98	\$6.70	\$7.04	\$7.39
Schools (per student ADA) [2]	\$0.51	\$0.74	\$0.83	\$0.93	\$0.98	\$1.03
Septage (per 1,000 gallons)	\$26.19	\$35.03	\$39.23	\$43.94	\$46.14	\$48.45
Industrial						
Flow (per mg)	\$1,561.56	\$2,497.17	\$2,796.83	\$3,132.45	\$3,289.07	\$3,453.52
BOD (per lb)	\$0.173	\$0.557	\$0.623	\$0.698	\$0.733	\$0.770
SS (per lb)	\$0.167	\$0.558	\$0.625	\$0.700	\$0.735	\$0.772

CCF – hundred cubic feet; one hundred cubic feet equals 748 gallons; Mg – million gallons; BOD – biological oxygen demand; SS – suspended solids

1 - Per hundred cubic feet (ccf)

2 - ADA - average daily attendance

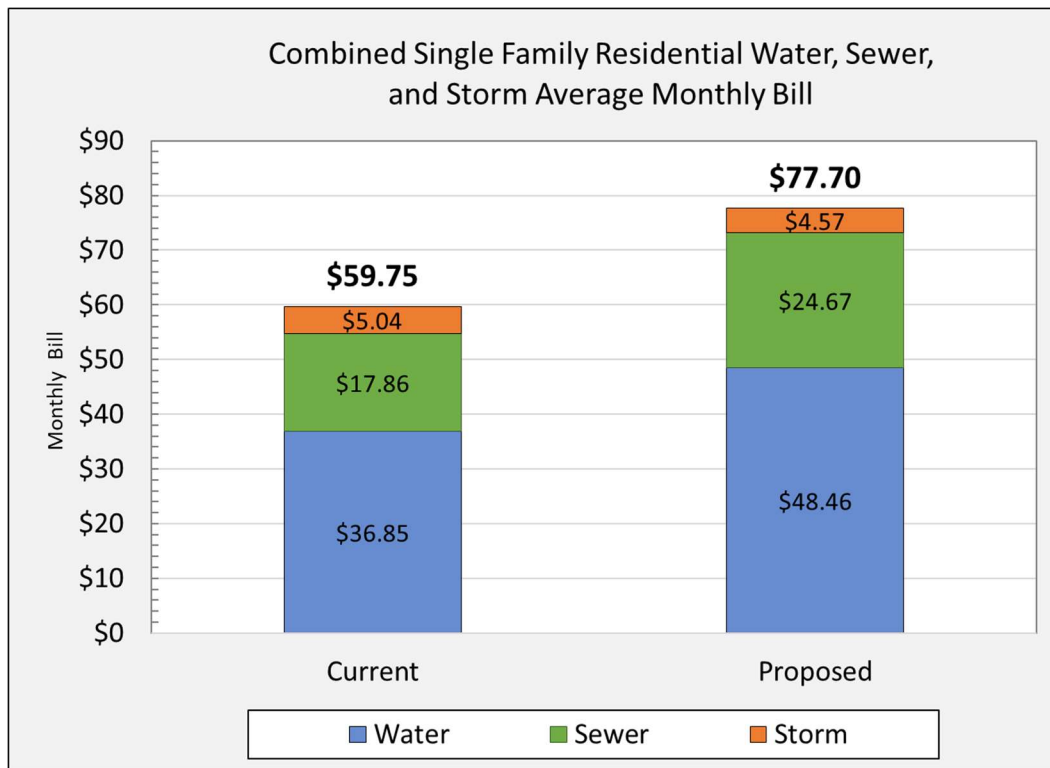
Table 3: Proposed Monthly Storm Drainage Fees
City of Hanford
Utility Rate Study

	Current Rates	PROPOSED				
		FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
<i>Effective Date</i>	<i>July 1, 2011</i>	<i>Feb 1, 2024</i>	<i>July 1, 2024</i>	<i>July 1, 2025</i>	<i>July 1, 2026</i>	<i>July 1, 2027</i>
SINGLE FAMILY RESIDENTIAL (per account)	\$5.04	\$4.57	\$4.79	\$5.03	\$5.29	\$5.55
ALL OTHER CUSTOMERS (per acre)						
Business		\$43.25	\$45.42	\$47.69	\$50.07	\$52.57
Industrial		\$38.45	\$40.37	\$42.39	\$44.51	\$46.73
Low Density		\$4.81	\$5.05	\$5.30	\$5.56	\$5.84
Multi-Family		\$28.84	\$30.28	\$31.79	\$33.38	\$35.05
Public Agency		\$43.25	\$45.42	\$47.69	\$50.07	\$52.57
Schools		\$7.21	\$7.57	\$7.95	\$8.35	\$8.76
BASE CHARGE (per account) [1]						
Business		\$8.65	\$9.08	\$9.54	\$10.01	\$10.51
Industrial		\$7.69	\$8.07	\$8.48	\$8.90	\$9.35
Low Density		\$0.96	\$1.01	\$1.06	\$1.11	\$1.17
Multi-Family		\$5.77	\$6.06	\$6.36	\$6.68	\$7.01
Public Agency		\$8.65	\$9.08	\$9.54	\$10.01	\$10.51
Schools		\$1.44	\$1.51	\$1.59	\$1.67	\$1.75

1 - Charge for storm drain accounts that the City does not currently have parcel size for

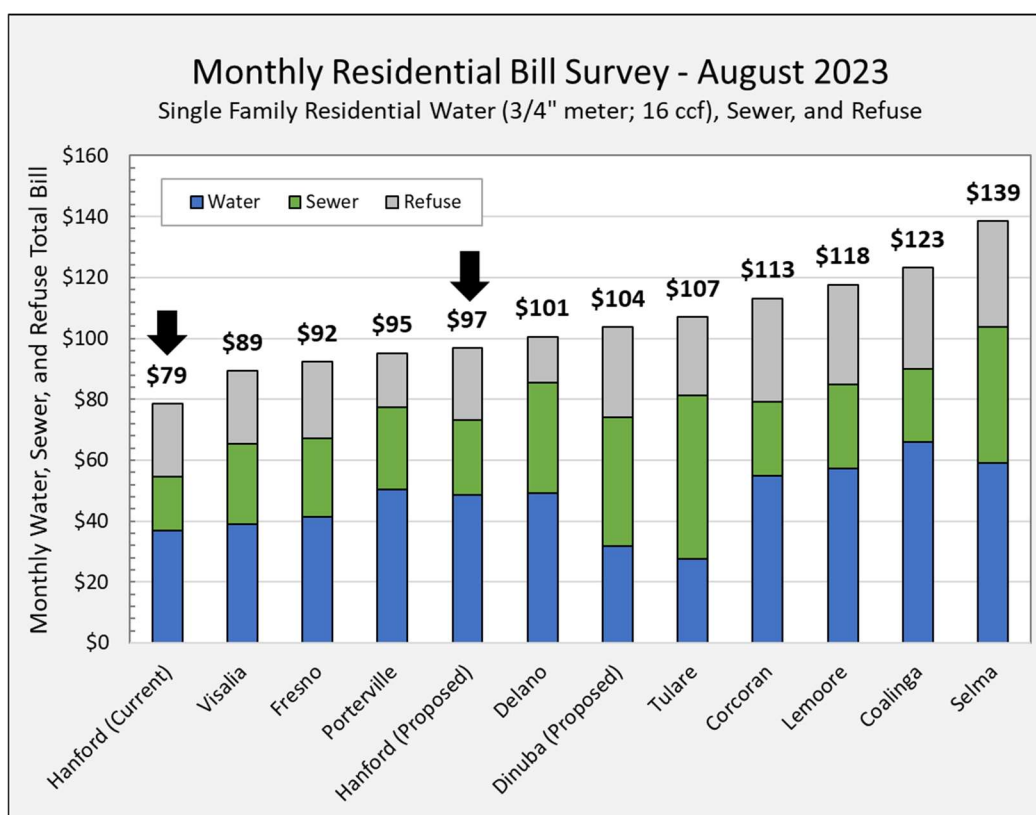
For all three utilities, the first rate change is proposed to go into effect February 1, 2024 with subsequent rate effective each July 1 beginning in 2024 through 2027. The typical monthly water use of a single family customer is 16 ccf per month. Based on these parameters, the City's current total combined water, wastewater, and storm drain bill for a typical single family home with a 5/8" meter is \$59.75 per month. After the proposed increase, the typical combined residential bill would increase to \$77.70 per month on February 1, 2024, an increase of about 30%, see Figure 2.

Figure 2: Single Family Residential Monthly Water, Sewer, and Storm Average Bill



It should be noted that each customer's monthly utility bill also includes service charges for other utility services including refuse and street sweeping. The charges for other utility services are not evaluated as part of this study. A survey was conducted comparing the combined monthly utility bill for City of Hanford residents with those of other local cities. Because not all cities charge monthly rates for storm drainage and street sweeping services, only water, wastewater, and refuse charges were included in the comparison, see Figure 3. The City's current and proposed combined monthly bills fall within the lower to mid-range of those charged by surrounding cities.

Figure 3: Single Family Residential Monthly Water, Sewer, and Refuse Bill Survey



SECTION 2: CURRENT RATES AND CUSTOMER BASE

This section provides an overview of the City of Hanford's current water, wastewater, and storm drainage rates, customer base, water usage statistics, and current rate revenues.

2.1 Current Water Rates

The City bills customers for water service on a monthly basis. The last water rate study was conducted in 2015 which provided a schedule of water rate increases through 2018. A schedule of current monthly water rates that went into effect on July 1, 2018 is provided in Table 4. Current rates vary based on whether each customer is located inside or outside the City limits. There is a 10% surcharge for customers outside the City limits. Prior to the last water rate study, some City customers were unmetered and billed according to a schedule of flat rates for water service. Since then, all customers have been transitioned to metered service. Thus, the City's existing schedule of water rates for flat rate connections is not evaluated as part of this study. The City's current water rate structure for metered service connections includes three components: (1) a Connection Charge, (2) a Meter Size Charge, and (3) a Water Consumption Charge.

2.1.1 Connection Charge

All customers are charged a connection charge which is standard across all customer classes and meter sizes. The connection charge is charged independent of water consumption.

2.1.2 Meter Size Charge

All customers are charged a meter size charge based on their meter size which is levied regardless of water consumption and recognizes that even when a customer does not use any water, the City incurs fixed costs associated with maintaining the ability or readiness to serve each connection. Together with the connection charge, the meter size charge makes up the fixed portion of each customer's monthly bill.

2.1.3 Water Consumption Charge

In addition to the fixed charges, all customers pay a water consumption charge per hundred feet (ccf) of water consumption. One ccf is equal to 748 gallons of water. The charges for all customers are the same regardless of customer class.

2.1.4 Private Fire Protection Service

The City also levies a flat charge to three customers that have a separate meter for fire sprinklers. The private fire protection service charges are not evaluated as part of this study.

**Table 4: Current Monthly Water Rates
City of Hanford
Utility Study**

Connection Charge	Inside City Limits	Outside City Limits
All Service Connections	\$2.46	\$2.71
Meter Size Charge		
5/8", 3/4", & 1" meter	\$12.95	\$14.25
1-1/2" & 2" meter	\$19.42	\$21.36
3" & 4" meter	\$32.37	\$35.61
6" meter	\$51.80	\$56.98
8" meter	\$77.71	\$85.48
Water Consumption Charge (per ccf)		
Rate per ccf	\$1.34	\$1.47

CCF – hundred cubic feet; one hundred cubic feet equals 748 gallons

Note: Private fire protection service charges are not included in the table

2.2 Water Customer Base and Current Water Sales Revenues

Table 5 includes a summary of the number of water accounts by meter size based on the City's billing data as well as estimated water usage and service charge revenues for FY 2022/23. The City provides service to over 18,300 accounts of which approximately 450 are outside current City limits. The majority of customers have 5/8", 3/4", or 1" meters, representing about 94.0% of total meters.

The City collected approximately \$9.3 million in total water rate revenues in FY2022/23. About 38.0% of revenues were collected from fixed charges including the connection charge, meter size charge, and private fire protection charges. The meter charges shown in Table 5 include the Connection Charge that has added on to the Meter Size Charge for each meter size. The remaining 62.0% of revenues were collected from Water Consumption Charges. Total annual water consumption in FY2022/23 was estimated at 4.3 million ccf, a decrease of about 8.0% from the previous two years.

Based on City billing records, the current average single family monthly residential water use is 16 ccf per month. Based on a typical home with a 5/8", 3/4", or 1" meter and 16 ccf of water use, the average water bill is currently \$36.85 per month.

Table 5: Estimated Water Service Sales Revenues from Billing Data, FY 2022/23
City of Hanford
Utility Rate Study

FY 2022/2023 (ESTIMATED)				
METER CHARGE				
Inside City Accounts	Meter Charge	No. of Accts	Fixed Revenue	% of Total
5/8", 3/4", & 1"	\$15.41	16,861	\$3,117,936	33.5%
1-1/2" & 2"	\$21.88	862	\$226,327	2.4%
3" & 4"	\$34.83	114	\$47,647	0.5%
6"	\$54.26	12	\$7,813	0.1%
8"	\$80.17	3	\$2,886	0.0%
Outside City Accounts				
5/8", 3/4", & 1"	\$16.96	428	\$87,107	0.9%
1-1/2" & 2"	\$24.07	20	\$5,777	0.1%
3" & 4"	\$38.32	1	\$460	0.0%
6"	\$59.69	2	\$1,433	0.0%
8"	\$88.19	2	\$2,117	0.0%
Private Fire Service				
4"	\$46.62	1	\$559	0.0%
6"	\$69.93	2	\$1,678	0.0%
Subtotal Fixed Revenue		18,308	\$3,501,740	37.6%
USAGE CHARGE				
All Usage	Usage Charge	Usage (ccf)	Usage Charge Revenue	% of Total
Inside City	\$1.34	4,195,771	\$5,622,334	60.4%
Outside City	\$1.47	<u>129,074</u>	<u>\$189,739</u>	<u>2.0%</u>
Subtotal Consumption Revenue		4,324,846	\$5,812,073	62.4%
Total Water Sales Revenue			\$9,313,813	100.0%

CCF – hundred cubic feet; one hundred cubic feet equals 748 gallons

2.3 Current Wastewater Rates

The City's last wastewater rate study was conducted in 2009 which determined a schedule of rates through 2011. A schedule of current monthly wastewater rates that went into effect on July 1, 2011 is provided in Table 6. The City's current rate structure varies based on customer class.

2.3.1 Residential Customers

Residential customers pay a flat monthly charge on a per dwelling unit basis. Single family residential customers pay \$17.86 per month, and multi-family customers pay \$16.93 per dwelling unit. A triplex is charged for three dwelling units, as an example. The charge per dwelling unit is lower for multi-family customers than single-family customers, reflecting lower average winter water use and estimated sewer flows.

2.3.2 Commercial Customers

Commercial customers pay a volume rate per ccf based on metered monthly water use. There are four subcategories of commercial wastewater customers grouped according to strength of wastewater flow. Customers with higher strength wastewater flow such as restaurants are billed a higher rate per ccf. Because sewer flow is not typically metered, water consumption is used as an approximation for sewer flow. It is assumed that any outdoor irrigation water use that does not flow into the sewer is separately metered through an irrigation-only connection that is not billed for sewer service.

2.3.3 Schools

Schools are billed annually based on average daily attendance (ADA) per month during the 9 months when schools are in session.

2.3.4 Septage

The City's septage hauler customers are billed per thousand gallons according to metered flow.

2.3.5 Industrial Customers

The City's industrial customers are charged according to actual metered wastewater discharge (flow and pollutant loading) as well as fees for excessive discharge.

Table 6: Current Wastewater Rates
City of Hanford
Utility Rate Study

RESIDENTIAL		
Single family residences	\$17.86	/month
Duplex, multi-family dwelling per dwelling unit	\$16.93	/month
NON- RESIDENTIAL		
Metered water		
(a) Mobile home parks, motels, public buildings, hospitals, nursing homes, churches, fraternal lodges, service stations and automotive centers	\$1.54	/ccf [1]
(b) Car washes, laundromats, retail, commercial and professional establishments	\$1.44	/ccf
(c) Mixed use commercial centers including food services with single water service	\$2.15	/ccf
(d) Restaurants, supermarkets, grocery stores, mortuaries	\$2.88	/ccf
Schools	\$0.51	/student/mo ADA [2]
Septage	\$26.19	/1000 gallons
INDUSTRIAL		
Flow	\$1,561.56	/million gal.
BOD (Biological Oxygen Demand)	\$0.17	per lb.
SS (Suspended Solids)	\$0.17	per lb.

1 - CCF – hundred cubic feet; one hundred cubic feet equals 748 gallons

2 - ADA – average daily attendance

2.4 Wastewater Customer Base and Current Revenues

The City's wastewater utility provides service to over 17,300 single family, multi family, commercial, industrial, and school accounts within the City. The majority of accounts are for single family residential customers, representing about 92.0% of total account holders.

Table 7 includes an estimate of total wastewater rate revenues collected in FY2022/23 based on the City's billing data as well as the number of billing units in each customer class. It is estimated that the City collected approximately \$5.39 million in total wastewater rate revenues in FY2022/23. About 81.0% of revenues were collected from the flat charges billed to single and multi-family residential customers. Industrial revenues account for over 4.0% of total while commercial revenues represent approximately 13.0%. The remainder of revenues are comprised of school and septage revenues.

Table 7: Estimated Wastewater Service Charge Revenues from Billing Data, FY 2022/23
City of Hanford
Utility Rate Study

FY 2022/2023 (ESTIMATED)				
FIXED CHARGES				
Residential Customers	Monthly Fixed Charge	No. of Units	Estimated Fixed Revenue	% of Total
Single Family Residential	\$17.86	15,872	\$3,401,687	64.3%
Multi-Family Residential per unit	\$16.93	4,345	<u>\$882,730</u>	<u>16.7%</u>
Subtotal Residential			\$4,284,417	81.0%
VOLUME RATES				
Industrial Customers	Usage Charge (\$/million gal or \$/lb.)	Units	Estimated Revenue	% of Total
Flow (million gallons)	\$1,561.0	145.16	\$226,595	4.3%
BOD (lbs)	\$0.173	33,269	\$5,761	0.1%
SS (lbs)	\$0.167	27,119	<u>\$4,527</u>	<u>0.1%</u>
Subtotal Industrial			\$236,883	4.5%
Commercial Customers	Usage Charge (\$/ccf)	Billed Flow	Estimated Revenue	% of Total
Group A: Domestic	\$1.54	129,553	\$199,512	3.8%
Group B: Low Strength	\$1.44	168,658	\$242,868	4.6%
Group C: Medium Strength	\$2.15	12,939	\$27,819	0.5%
Group D: High Strength	\$2.89	<u>79,588</u>	<u>\$230,009</u>	<u>4.3%</u>
Subtotal Commercial		390,738	\$700,207	13.2%
Schools	Charge per student (ADA)	# of students	Estimated Revenue	% of Total
	\$0.51		<u>\$48,539</u>	<u>0.9%</u>
Subtotal Schools			\$48,539	0.9%
Septage	Usage Charge (\$/1000 gal)	Billed Flow (1,000 gal)	Estimated Revenue	% of Total
	\$26.19	765	<u>\$20,038</u>	<u>0.4%</u>
Subtotal Septage			\$20,038	0.4%
TOTAL WASTEWATER SERVICE REVENUES			\$5,290,084	100.0%

CCF – hundred cubic feet; one hundred cubic feet equals 748 gallons

2.5 Current Storm Drainage Rates and Revenues

Of the existing wastewater system charges adopted in the City's Resolution No. 09-77-R, 78.0% of the service charges for each customer are allocated to the wastewater system as shown in Table 6, and the remaining 22.0% are allocated to the storm drain system. Thus, the rate structure for the storm drain system is the same as the rate structure for the wastewater system. A schedule of current monthly storm drain rates that went into effect on July 1, 2011 is provided in Table 8. Residential customers are billed a flat charge per dwelling unit, commercial customers are billed a volume rate per ccf of metered water usage, schools are billed per student, septage users are billed per thousand gallons, and industrial customers are billed according to metered wastewater discharge.

Annual fee revenues collected in FY2022/23 were estimated at \$1.45 million. About 65.0% of revenues were collected from single family residential customers. Multi-family residential customers generated 16.2% of revenues, businesses generated 10.5%, industrial customers generated 5.9%, and the remainder were collected from public agencies and schools.

Table 8: Current Storm Drainage Rates
City of Hanford
Utility Rate Study

RESIDENTIAL		
Single family residences	\$5.04	/month
Duplex, multi-family dwelling per dwelling unit	\$4.77	/month
NON- RESIDENTIAL		
Metered water		
(a) Mobile home parks, motels, public buildings, hospitals, nursing homes, churches, fraternal lodges, service stations and automotive centers	\$0.43	/ccf [1]
(b) Car washes, laundromats, retail, commercial and professional establishments	\$0.40	/ccf
(c) Mixed use commercial centers including food services with single water service	\$0.61	/ccf
(d) Restaurants, supermarkets, grocery stores, mortuaries	\$0.81	/ccf
Schools	\$0.15	/student/mo ADA [2]
Septage	\$7.39	/1000 gallons
INDUSTRIAL		
Flow	\$440.44	/million gal.
BOD (Biological Oxygen Demand)	\$0.0488	per lb.
SS (Suspended Solids)	\$0.0471	per lb.

1 - CCF – hundred cubic feet; one hundred cubic feet equals 748 gallons

2 - ADA = average daily attendance

SECTION 3: WATER REVENUE REQUIREMENT

Proposition 218 requires that utility rates be based on the reasonable cost of providing service to customers. The cost of service includes annual operating expenses, capital improvement projects, and the accumulation of appropriate reserves. This section summarizes the water utility's revenues and expenses to determine the total cost of service to be recovered via rates. The cost of service is expressed in a cash flow table that illustrates revenue increases needed to keep up with expenses and maintain the financial health of the enterprise.

3.1 Water System Overview

The City is responsible for providing safe, clean water through the operation of its water system consisting of over 220 miles of water mains, 12 water supply wells, and 3.5 million gallons of water storage. The City's sole water source is groundwater from within the San Joaquin Valley Groundwater Basin which is obtained from wells and chlorinated before distribution. One well also includes treatment facilities for the removal of arsenic.

There are over 18,000 active water accounts including City residents and a small number of residents in surrounding areas. On average over the past 3 years, the City has consumed between 4.5 million and 5 million ccf of water each year. Single family residential consumption comprises more than half of the City's total consumption at approximately 66.0% with the remaining 33.0% of use by multi-family residential, commercial, industrial, public agency, and school customers. Based on City billing records, the current average monthly single family residential water use is 16 ccf per month.

3.2 Water Reserves

The accumulation and maintenance of reasonable reserves is one factor to consider when determining the cost of service. Adequate fund reserves protect the City when faced with unforeseen financial challenges such as emergency expenses or revenue deficits. Fund reserves allow the City to maintain its financial health and positive credit ratings, especially during emergencies. Moreover, funding can be drawn from reserves to supplement rate revenues lost during drought conditions or other unexpected situations. The City can also choose to use reserves to smooth cash flows and mitigate impacts to ratepayers.

The City maintains two water reserve funds – 1) an operating fund reserve and 2) a capital reserve fund reserve. As of the beginning of FY 2023/24, the water utility had operations fund reserves of approximately \$9.98 million and capital and reserve fund reserves of approximately \$10.58 million. Total reserves are strong. The recommended reserve target is 50 percent of annual operating costs plus one year's total debt service payment.

3.3 Water Capital Improvement Plan

Table 9 provides the City's capital improvement plan (CIP) by year for the rate study period, totaling \$43.7 million. Projects funded by impact fees or other non-rate sources are not included. Major projects include the replacement of water meters and aged water mains throughout the City.

Table 9: Water Capital Improvement Plan (rate funded)
City of Hanford
Utility Rate Study

Project Title	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	5-Year Total
Water Sys Security Upgrades	\$605,740	-	-	-	-	\$605,740
Utility Customer Payment Kiosks (2)	\$27,000	\$14,000	\$14,000	\$14,000	\$14,000	\$83,000
Industrial Park Water Storage	-	\$3,879,800	-	-	-	\$3,879,800
Tank 4 Chlorination	\$66,070	-	-	-	-	\$66,070
Repr Well 45 & 49	\$86,060	-	-	-	-	\$86,060
Lacey Blvd Widen Magna Carta to 13th	-	-	-	\$500,000	-	\$500,000
2910 Well Pump Rehab 42 & 38	\$120,000	\$120,000	-	-	-	\$240,000
2910 Spare Motor 250	-	-	\$60,000	-	-	\$60,000
Water Distrib Main Ext Program	-	\$480,000	-	-	-	\$480,000
Water Main Repl Program	\$700,000	-	\$700,000	-	\$700,000	\$2,100,000
New Water Supply Well	\$900,000	-	\$900,000	-	\$900,000	\$2,700,000
2910 Meter Replacement	\$5,000,000	\$5,000,000	\$5,000,000	-	-	\$15,000,000
Unsch Main Exten/Repl-Water	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$250,000
2081 Fire Hydrants	\$28,000	-	-	-	-	\$28,000
1750 Pw Enclosed Warehouse	-	-	\$200,000	-	-	\$200,000
Lacey Widen/Recon/10th-Sierra	\$366,020	\$584,640	\$223,870	-	-	\$1,174,530
Meter Replacement Program	\$857,830	\$120,000	\$120,000	\$120,000	\$120,000	\$1,337,830
Automated Meter Zenner Eq Repair	\$638,180	-	-	-	-	\$638,180
Amr Replacement Program	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000	\$2,000,000
Annual Repairs & Replacement	-	\$500,000	\$500,000	\$500,000	\$500,000	\$2,000,000
Well 51 and Well 52	-	\$4,240,000	-	-	-	\$4,240,000
Well and Tank at Heroes Park	-	-	-	-	\$6,000,000	\$6,000,000
Total Water CIP	\$9,844,900	\$15,388,440	\$8,167,870	\$1,584,000	\$8,684,000	\$43,669,210

3.4 Water Cash Flow Projection

The water fund cash flow for the five-year period beginning in FY 2023/24 through FY 2027/28 is provided in Table 10. The cash flow is based on the City's *FY 2023/24 and 2024/25 Budget* and includes revenue increases such that the City covers operating and debt service costs, funds all proposed capital improvement projects, and maintains adequate reserves. Revenue increases over the course of the five-year period are proposed to be 35.0% in the first year followed by 15.0%, 10.0%, 5.0%, and 5.0%. It should be noted that this level of increase is applied to the City's total water rate revenues and does not necessarily reflect the level of increase for individual customers. Each customer's bill varies depending

on meter size and water usage. The first rate increase is proposed to go into effect February 1, 2024, followed by subsequent increases each July 1 beginning in 2024 through 2027.

3.4.1 Water Revenues

As shown in Table 5, current water rates are estimated to generate \$9.3 million in revenues. For FY 2023/24, rate revenues are projected at \$10.4 million, assuming the City will collect rates at the current revenues for 7 months and rates with proposed revenue increases for 5 months. Rate revenues are the main revenue source for the water utility, comprising about 97.0% of total water revenues. Other revenue sources include penalty fees, job orders, interest income, and miscellaneous income. These other sources generate about \$299,000 annually, which is projected to remain constant over the next five years.

3.4.2 Water Expenses

The cash flow uses the City's *FY 2023/24 and FY 2024/25 Budget* as the basis for projected expenses. Most operating expenses are projected to increase 3.0% annually beginning in FY 2025/26, except for Salaries & Benefits which are escalated by 7.0% annually beginning in FY 2025/26 per City direction. The water fund's share of payments for the principle for the Pension Obligation Bond (POB) are included as a new expense. New fees payable to the local Groundwater Sustainability Agency (GSA) are estimated at \$100,000 annually for administration plus an additional \$500,000 per year for pumping fees beginning in FY 2024/25. Annual depreciation is not included as a cash expense. The City's capital improvement plan includes funding for the repair and replacement of infrastructure to keep up with wear and tear on the City's facilities.

3.4.3 Debt Service and Debt Service Coverage

A chief covenant for the City to secure loans, grants, or revenue bonds/Certificates of Participation (COPs) is to maintain a specific debt service coverage ratio. A debt service coverage ratio is a financial measure of an agency's ability to repay outstanding debt. For the water fund, the debt service coverage ratio means that annual water net revenues (gross revenues less operating and maintenance expenses) must be at least 1.2 times the combined annual debt service payments on all parity obligations. Failure to meet the debt service coverage ratio on an annual basis is considered to be technical default, thereby making the revenue bonds/COPs callable or payable upon demand. Thus, rates and fees must be set to meet this legal requirement.

The water utility currently has one outstanding debt obligation that counts toward its debt service coverage requirement – Water Revenue Refunding Bonds, Series 2013. In 2013, the City issued \$12.725 million in bonds bearing interest of 2.0% to 5.0% payable semi-annually beginning in October 2013. The Bonds were issued to refinance the City's previously issued \$8.925 million CSCDA Water and Wastewater Revenue Bonds dated December 9, 2003 and the \$8.15 million Installment Sale Agreement – Water System dated December 20, 2007. Total annual debt service is about \$1.1 million and will be

paid off in October 2028. The rates proposed in this study are expected to generate adequate revenues to meet the City’s current and future coverage requirements.

3.4.4 Five-Year Summary

Figure 4 graphically shows the water cash flow projection for the five-year rate study period including both operating and capital expenses. In the first few years, expenses will exceed revenues. The City will spend down some of its existing reserves to fund capital projects, thereby mitigating the level of rate increases needed for customers. At the end of the five-year period, the City’s revenues are projected to be in-line with total expenses.

Figure 4: Water Cash Flows

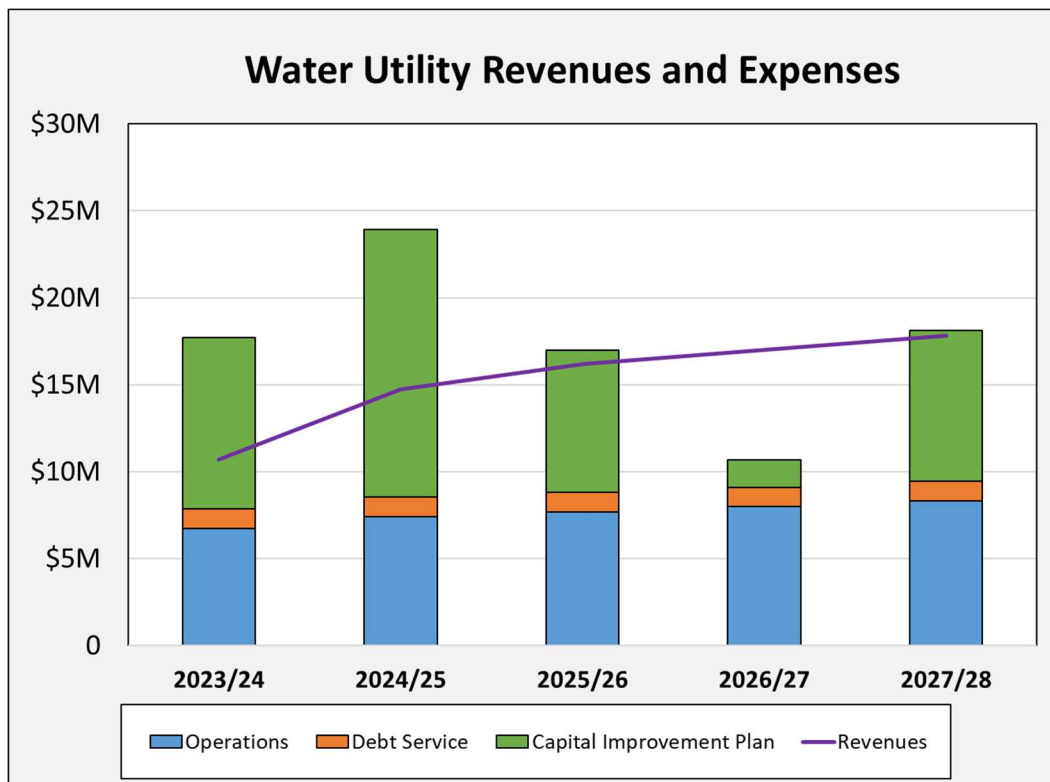


Table 10: Water Cash Flow Projection
City of Hanford
Utility Rate Study

	Years 1 -5: Proposition 218				
	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
Rate Revenue Increase	35.0%	15.0%	10.0%	5.0%	5.0%
Rate Increase Effective	Feb 1, 2024	Jul 1, 2024	Jul 1, 2025	Jul 1, 2026	Jul 1, 2027
BEGINNING FUND BALANCE [1]	\$9,975,000	\$4,324,000	\$2,038,000	\$3,416,000	\$5,304,000
REVENUES					
<i>Rate Revenues [2]</i>	10,398,000	14,457,000	15,903,000	16,698,000	17,533,000
Penalties	40,000	40,000	40,000	40,000	40,000
Service Orders/Job Orders	90,000	90,000	90,000	90,000	90,000
Interest Income	39,000	39,000	39,000	39,000	39,000
Miscellaneous Income	<u>130,000</u>	<u>130,000</u>	<u>130,000</u>	<u>130,000</u>	<u>130,000</u>
Total Revenue	10,697,000	14,756,000	16,202,000	16,997,000	17,832,000
EXPENSES					
<i>Operating Expenses</i>					
Salaries and Benefits	1,782,000	1,996,000	2,136,000	2,286,000	2,446,000
Supplies and Equipment	1,363,000	1,353,000	1,394,000	1,436,000	1,479,000
Outside Services	235,000	231,000	238,000	245,000	252,000
City Services Allocation	1,065,000	1,065,000	1,097,000	1,130,000	1,164,000
GSA Fees	100,000	600,000	600,000	600,000	600,000
POB Principal	230,000	225,000	226,000	225,000	234,000
Chemicals	300,000	300,000	309,000	318,000	328,000
Utilities	<u>1,645,000</u>	<u>1,645,000</u>	<u>1,694,000</u>	<u>1,745,000</u>	<u>1,797,000</u>
Subtotal O&M	6,720,000	7,415,000	7,694,000	7,985,000	8,300,000
Net Operating Revenue	3,977,000	7,341,000	8,508,000	9,012,000	9,532,000
<i>Debt Service</i>					
Water Rev Refunding Bonds, Series 2013	1,128,000	1,127,000	1,130,000	1,124,000	1,134,000
Transfers Out (#570250)	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000
Add'l Transfer to Capital Fund	<u>6,000,000</u>	<u>6,000,000</u>	<u>3,500,000</u>	<u>3,500,000</u>	<u>3,500,000</u>
Transfers to Capital Fund	8,500,000	8,500,000	6,000,000	6,000,000	6,000,000
Total Operations Fund Net Revenues	(5,651,000)	(2,286,000)	1,378,000	1,888,000	2,398,000
OPERATIONS FUND ENDING BALANCE	4,324,000	2,038,000	3,416,000	5,304,000	7,702,000
<i>Operations Fund Reserve Target [3]</i>	4,488,000	4,835,000	4,977,000	5,117,000	5,284,000
<i>Operating Reserve Target Met?</i>	no	no	no	yes	yes
Debt Service Coverage (Target = 1.20x) [4]	3.53	6.51	7.53	8.02	8.41
CAPITAL & RESERVE BEG. BALANCE [5]	10,582,000	9,237,000	2,349,000	181,000	4,597,000
<i>Revenues</i>					
Transfer from Operations Fund (#570250)	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000
Transfer from Operations Fund	<u>6,000,000</u>	<u>6,000,000</u>	<u>3,500,000</u>	<u>3,500,000</u>	<u>3,500,000</u>
Subtotal Capital Revenues	8,500,000	8,500,000	6,000,000	6,000,000	6,000,000
<i>Capital Plan Expenses</i>	9,845,000	15,388,000	8,168,000	1,584,000	8,684,000
Capital Fund Net Revenues	(1,345,000)	(6,888,000)	(2,168,000)	4,416,000	(2,684,000)
CAPITAL & RESERVE ENDING BALANCE	9,237,000	2,349,000	181,000	4,597,000	1,913,000

1 - Estimated Water Operations Fund cash fund balance from City staff

2 – FY 2023/24 revenues are estimated based on 7 months at current rate revenues and 5 months with proposed rate increases

3 - Recommended targets is 6 months O&M Expenses plus annual debt service cost

4 - Net Operating Revenue divided by Total Debt Service

5 - Estimated Water Capital & Reserve Fund cash fund balance from City staff

SECTION 4: WATER COST ALLOCATION AND RATE DESIGN

4.1 Water Cost Allocation

The water revenue requirement detailed in the previous section determines the total cost of providing service to be recovered from water rates, and in this section that revenue requirement is assigned to fixed and consumption charges to fairly recover costs from customers based on how they use the water system. Proposition 218 requires that agencies providing “property-related services” (including water utility service) set rates and charges that are based on the cost of providing those services and are proportional to how customers use the system.

4.1.1 Overview of Water Cost of Service Methodology

The purpose of the cost allocation is to classify costs and to determine the amount of revenue that will be recovered from fixed charges and from consumption charges. The American Water Works Association (AWWA) recommends methods to classify costs among various customers. Using the Base-Extra Capacity Method as recommended by the AWWA, water operating expenses are allocated to the following categories: (a) Base, (b) Extra, (c) Meters & Services, and (d) Customer Service. The *Base* and *Extra* categories are intended to recover variable (consumption) costs, while the *Customer Service* and *Meters & Services* categories are intended to recover fixed expenses that are incurred regardless of water used.

- *Base*: Base costs include the expenses related to providing water under average, “base” demand conditions.
- *Extra*: The extra category includes costs related to providing water above the system average demand (ie. related to peak, “extra” usage).
- *Meters & Services*: These include costs related to maintaining and replacing water meters and operating costs related to providing service at the maximum demand of each meter.
- *Customer Service*: This category contains costs associated with serving customers, such as billing and answering customer inquiries.

4.1.2 Cost Allocation

The cost allocation for the water utility is provided below in Table 11. The *FY 2023/24 Budget* is used as the test year for the cost allocation. Costs are allocated according to how they are incurred by the City. Based on the proposed allocation, roughly 33.0% of costs will be recovered from the Fixed Charges while the remaining 67.0% will be recovered from Consumption Charges.

Table 11: Water Cost Allocation
City of Hanford
Utility Rate Study

Budgeted Expenses	Budget FY 2023/24	Consumption Charge Base & Extra	Fixed Charge	
			Meters	Customer Service
<u>Operating Expenses</u>				
Salaries and Benefits	\$1,782,000	66.67%	16.67%	16.67%
Supplies and Equipment	\$1,363,000	60.00%	20.00%	20.00%
Outside Services	\$235,000	60.00%	20.00%	20.00%
GSA Fees	\$100,000	0.00%	50.00%	50.00%
POB Principal	\$230,000	66.67%	16.67%	16.67%
Chemicals	\$300,000	100.00%	0.00%	0.00%
Utilities	<u>\$1,645,000</u>	<u>100.00%</u>	<u>0.00%</u>	<u>0.00%</u>
Subtotal	\$5,655,000	\$4,245,133	\$704,933	\$704,933
		75.07%	12.47%	12.47%
City Services Allocation	<u>\$1,065,000</u>	<u>75.07%</u>	<u>12.47%</u>	<u>12.47%</u>
Total Operating	\$6,720,000	\$5,044,615	\$837,693	\$837,693
<u>Non-Operating Expenses</u>				
Debt Service (5-year avg)	\$1,128,600	100.00%	0.00%	0.00%
Water CIP Projects (5-year avg) [1]	<u>\$8,733,800</u>	<u>56.36%</u>	<u>43.45%</u>	<u>0.19%</u>
Subtotal Non-Operating	\$9,862,400	\$6,050,616	\$3,795,184	\$16,600
Total Expenses	\$16,582,400	\$11,095,231	\$4,632,876	\$854,293
Proposed Cost Allocation %		66.91%	27.94%	5.15%

1 - Based on CIP projects over the next five years

4.1.3 Annual Revenue Requirement Allocation

To determine the total revenues that must be collected each year from fixed and consumption charges, the cost allocation percentages from Table 11 are applied to the total water rate revenue requirements from the cash flow projection (Table 10). The fixed charge revenue requirement is based on the *Meters & Services* and *Customer Service* categories from the cost allocation. The consumption charge revenue requirement is based on the *Base* and *Extra* categories.

Table 12: Annual Revenue Requirement Allocation
City of Hanford
Utility Rate Study

	Cost Allocation %	PROJECTED - RATE STUDY PERIOD				
		FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
Total Revenue Requirement [1]		\$12,571,000	\$14,457,000	\$15,903,000	\$16,698,000	\$17,533,000
FIXED CHARGES						
Meters & Services	27.9%	\$3,512,151	\$4,039,071	\$4,443,062	\$4,665,173	\$4,898,460
<u>Customer Service Charge</u>	<u>5.2%</u>	<u>\$647,633</u>	<u>\$744,796</u>	<u>\$819,291</u>	<u>\$860,248</u>	<u>\$903,266</u>
Total Fixed Charges	33.1%	\$4,159,784	\$4,783,867	\$5,262,353	\$5,525,421	\$5,801,726
CONSUMPTION CHARGES						
Total Consumption Charges	66.9%	\$8,411,216	\$9,673,133	\$10,640,647	\$11,172,579	\$11,731,274
TOTAL	100.0%	\$12,571,000	\$14,457,000	\$15,903,000	\$16,698,000	\$17,533,000

1 – FY 2023/24 Revenue Requirement is if February 1 rates were to be in effect for 12 months

4.2 Billing Units

4.2.1 Meter Equivalents

The most common method to levy fixed charges is by meter size. AWWA guidelines recommend using meter equivalents to assign demand-related and service related costs to larger meter sizes. The ratio at which the meter charge increases is typically a function of either meter investment (estimated cost) or the meter's safe operating capacity. The AWWA M1 Manual 7th Edition page 77 states "*billing ratios are used to recognize that billing, metering, and collection costs for larger services may be greater than for smaller meter-size services. This may be due to difficulty in accessing the meter facility, replacement of meters, multiple dial meters, more customer service time associated with dealing with larger meter customers, and other factors.*" These costs are reflected in the portion of Salaries and Benefits and Supplies and Equipment line items allocated to *Customer Service* and *Meters* in Table 11.

Moreover, larger meters have the ability to place a greater demand on the water system and are therefore charged based on that potential demand (or standby capacity). Water system components such as pumps, tanks, and pipelines are engineered and designed to meet maximum hour demand plus fire flow. The City incurs costs to maintain and operate these facilities at maximum capacity 24 hours a day, 365 days per year. For example, a customer that has a 6" meter has 20 times the capacity equivalency (flow rate) of a customer with a 5/8" or 1" meter. (A 6" meter has a safe operating capacity of 1,000 gallons per minute (gpm) compared to a 5/8" or 1" meter which has a safe operating capacity

of 50 gpm). If all customers had 5/8" meters, the City would incur lower operating and capital costs as facilities would be smaller sized and more easily replaced and maintained. The AWWA M1 Manual 7th Edition page 152 states *"this analysis considers that there is a minimum system in place to meet minimum service requirements regardless of use. The minimum needs are defined by determining the minimum size a system would be designed to meet minimum or average service needs (e.g., 4-in. service) not considering sizing for peak-day capacity needs or fire protection. The percentage of the distribution system related to meeting the minimum system needs would be applied to distribution-related costs and would be collected in the fixed charges. Incremental system sizing related to sizing the system to meet peak-day needs and fire flow requirements may also be considered for inclusion in the fixed charges."* These costs are staffing, maintenance, and capital expenses from Table 11 associated with providing capacity for the maximum flow rate of each meter.

Table 13 shows the existing number of meters by meter size and calculates the number of meter equivalents based on the AWWA recommended meter ratios. The base meter size for the City is the 5/8", 3/4", or 1" meter, representing over 94.0% of all meters served. The recalculation of meter equivalents for larger meter sizes will amend the fixed charges so that each meter size will be charged based on their proportional impact on the system.

**Table 13: Number of Meter Equivalents (Total Inside & Outside City Accounts)
City of Hanford
Utility Rate Study**

Meter Size	No. of Meters	Flow Rate (gpm)	Meter Ratio	No. of Meter Equivalents
5/8", 3/4", & 1"	17,289	50	1.00	17,289
1-1/2" & 2"	882	100	2.00	1,764
3" & 4"	115	320	6.40	736
6"	14	1,000	20.00	280
8"	5	1,600	32.00	160
TOTAL	18,305			20,229

Flow rates taken from AWWA M1 Manual 7th Edition page 386

4.2.2 Projected Growth and Use

Table 14 shows an estimate of total water meters, water meter equivalents, and water use for the next five years. Customer growth is projected at 0.9% each year beginning in FY 2024/25 based on the projected annual growth rate from the City's most recent Urban Water Management Plan by the Akel Engineering Group. Estimated current water use is based on billing data from the past two years less an 8.0% conservation factor to account for actual decreased water rate revenue in FY 2022/23.

Consumption is conservatively estimated to remain level through the first two years of the study period to account for conservation as customers adjust to the increased water rates. Beginning in FY 2025/26, water consumption is estimated to increase by 0.9% each year concurrently with growth in the customer base.

Table 14: Projected Customer Growth & Water Consumption
City of Hanford
Utility Rate Study

	CURRENT 2022/23	PROJECTED - RATE STUDY PERIOD				
		FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
NUMBER OF METERS						
<i>Growth Increase % [1]</i>		0.00%	0.90%	0.90%	0.90%	0.90%
Total Water Meters	18,305	18,305	18,470	18,636	18,804	18,973
Total Meter Equivalents	20,229	20,229	20,411	20,595	20,780	20,967
WATER CONSUMPTION						
<i>Annual Increase % [2]</i>		0.00%	0.00%	0.90%	0.90%	0.90%
Total Consumption [3]	4,324,846	4,324,846	4,324,846	4,363,769	4,403,043	4,442,671

1 - Table 3-2, Urban Water Management Plan by Akel Engineering Group projects an annual growth rate of 0.9%

2 - Projected water use for FY2024 and FY2025 reflect no growth in use as customers adjust to the new rate increases

3 - Note: Projected 2023 consumption is based on the average of FY 2020/21 and FY 2021/22 less 8% to account for observed conservation during FY 2022/23

4.3 Water Rate Design

To comply with Proposition 218, the following modifications to the existing water rate structure are proposed:

- **Inside vs. Outside City Rates**
 - Eliminate the 10% surcharge for customers outside the City limits.
- **Fixed Meter Charge**
 - Use the AWWA meter capacity ratios to calculate rates for the larger meter sizes. The re-alignment will amend the fixed charges so that each meter size will be charged based on their proportional impact on the system. This is in-line with industry standard practice and is the policy of most other local utility providers.
- **Drought Rates**
 - Adopt a schedule of drought consumption charges whereby the rate per unit of water (ccf) for all customers will temporarily increase should the City declare a water shortage emergency. The drought rates are in alignment with the City's existing Water Shortage Contingency Plan.

4.4 Water Rate Derivation

Following the allocation of costs, the next step is to derive the total cost responsibility for each customer class by developing unit costs of service for each cost function and then assigning those costs to the customer classes based on the respective service requirements of each.

4.4.1 Fixed Meter Charge Calculation

Table 15 shows the rate derivation for the proposed Fixed Charge by meter size based on the AWWA meter equivalents from Table 13 and the total revenue requirements from Table 12. The customer service portion of the Fixed Charge is proposed to be the same for each customer regardless of meter size, whereas the meter equivalent portion of the fixed charge is proposed to be based on meter size. The total *Meters & Services* revenue requirement is divided by the total number of meter equivalents. The *Customer Service* revenue requirement is divided by the total number of accounts.

For 2023/24, the proposed meter equivalent charge of \$14.47 is multiplied by the corresponding meter equivalent ratio to calculate a charge for each meter size. The customer service charge of \$2.95 is then added to the meter equivalent charge for each meter size to calculate the total proposed fixed charge. The proposed 2023/24 charge for a 5/8", 3/4", or 1" meter is \$17.42.

Table 15: Water Fixed Charge Derivation
City of Hanford
Utility Rate Study

		PROJECTED - RATE STUDY PERIOD				
		FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
REVENUE REQUIREMENT						
Meters & Services		\$3,512,151	\$4,039,071	\$4,443,062	\$4,665,173	\$4,898,460
Customer Service Charge		\$647,633	\$744,796	\$819,291	\$860,248	\$903,266
Total Fixed Charge Rev. Requirement		\$4,159,784	\$4,783,867	\$5,262,353	\$5,525,421	\$5,801,726
METER EQUIVALENT CHARGE						
Total Meter Equivalent Charge Revenue Requirement		\$3,512,151	\$4,039,071	\$4,443,062	\$4,665,173	\$4,898,460
Total Number of Meter Equivalents		20,229	20,411	20,595	20,780	20,967
Total Meter Equivalent Charge		\$14.47	\$16.49	\$17.98	\$18.71	\$19.47
Meter Equivalent Charge by Meter Size						
Meter Size	Ratio					
5/8", 3/4", & 1"	1.00	\$14.47	\$16.49	\$17.98	\$18.71	\$19.47
1-1/2" & 2"	2.00	\$28.94	\$32.98	\$35.96	\$37.42	\$38.94
3" & 4"	6.40	\$92.61	\$105.54	\$115.07	\$119.74	\$124.61
6"	20.00	\$289.40	\$329.80	\$359.60	\$374.20	\$389.40
8"	32.00	\$463.04	\$527.68	\$575.36	\$598.72	\$623.04
CUSTOMER SERVICE CHARGE						
Total Customer Service Charge Revenue Requirement		\$647,633	\$744,796	\$819,291	\$860,248	\$903,266
Total Number of Meters		18,305	18,470	18,636	18,804	18,973
Total Customer Service Charge per Account		\$2.95	\$3.36	\$3.66	\$3.81	\$3.97
TOTAL MONTHLY FIXED CHARGE [1]						
Meter Size						
5/8", 3/4", & 1"		\$17.42	\$19.85	\$21.64	\$22.52	\$23.44
1-1/2" & 2"		\$31.89	\$36.34	\$39.62	\$41.23	\$42.91
3" & 4"		\$95.56	\$108.90	\$118.73	\$123.55	\$128.58
6"		\$292.35	\$333.16	\$363.26	\$378.01	\$393.37
8"		\$465.99	\$531.04	\$579.02	\$602.53	\$627.01

1 - Total Monthly Fixed Charge is the sum of the "Meter Equivalent Charge" by meter size plus the "Total Customer Service Charge per Account"

4.4.2 Consumption Charge Derivation

Table 16 calculates the Consumption Charge for all customers based on the total revenue requirement from Table 12 and projected annual water consumption from Table 14. The proposed Consumption Charge is a single uniform tier in which all customer classes are charged the same rate for each unit of water consumption. The proposed FY 2023/24 Consumption Charge is \$1.94 per ccf.

Table 16: Consumption Charge Rate Derivation
City of Hanford
Utility Rate Study

	PROJECTED - RATE STUDY PERIOD				
	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
REVENUE REQUIREMENT					
Total Consumption Charge Revenue Requirement	\$8,411,216	\$9,673,133	\$10,640,647	\$11,172,579	\$11,731,274
CONSUMPTION CHARGE DERIVATION					
Revenue Requirement	\$8,411,216	\$9,673,133	\$10,640,647	\$11,172,579	\$11,731,274
<u>Total Consumption (ccf)</u>	<u>4,324,846</u>	<u>4,324,846</u>	<u>4,363,769</u>	<u>4,403,043</u>	<u>4,442,671</u>
Rate per ccf	\$1.94	\$2.24	\$2.44	\$2.54	\$2.64

CCF – hundred cubic feet; one hundred cubic feet equals 748 gallons

4.4.3 Drought Rate Derivation

It is recommended that the City implement a series of drought consumption charges which can be implemented during a water shortage emergency, allowing for financial stability during periods of reduced water sales. Drought rates are designed to cover costs at decreased levels of consumption. The City recognizes that ratepayers are already doing their part to conserve. Therefore, applying the drought surcharge to only the consumption charge component gives customers the increased ability to control a portion of their water bills. The proposed drought rates would be charged on a temporary basis and would be phased out when the City determined that water supply conditions had returned to normal and drought-related costs and revenue reductions had been recovered.

During times of water shortages, a water utility has two core objectives: 1) to reduce the amount of water customers consume, and 2) to cover the cost of operations. The two competing objectives work against each other because as less water is sold, it becomes more difficult to maintain adequate revenue to cover an agency's costs. It should be noted that under drought conditions, certain expenses such as electricity, supplies, and equipment will decrease relative to the decrease in water use. However, other costs to operate the water system such as staffing and maintaining long-term supply remain the same. The reduction in cost during drought conditions is reflected in the revenue requirements shown in Table

17. The levels of water cutback for the proposed drought rates in Table 17 are designed to be in alignment with the City's existing *Water Shortage Contingency Plan* and represent potential water shortage scenarios. Estimated *base* and *extra* expenses under each cutback scenario are divided by total water usage to calculate the drought consumption charges.

Table 17: Consumption Charge Rate Derivation - Drought Rates
City of Hanford
Utility Rate Study

	PROJECTED - RATE STUDY PERIOD				
	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
CONSUMPTION CHARGE DERIVATION - 10% Cutback					
Revenue Requirement	\$8,191,081	\$9,419,971	\$10,362,164	\$10,880,174	\$11,424,248
Total Consumption (ccf)	<u>3,892,361</u>	<u>3,892,361</u>	<u>3,927,392</u>	<u>3,962,739</u>	<u>3,998,404</u>
Rate per ccf	\$2.10	\$2.42	\$2.64	\$2.75	\$2.86
CONSUMPTION CHARGE DERIVATION - 20% Cutback					
Revenue Requirement	\$7,970,946	\$9,166,810	\$10,083,681	\$10,587,770	\$11,117,222
Total Consumption (ccf)	<u>3,459,877</u>	<u>3,459,877</u>	<u>3,491,016</u>	<u>3,522,435</u>	<u>3,554,137</u>
Rate per ccf	\$2.30	\$2.65	\$2.89	\$3.01	\$3.13
CONSUMPTION CHARGE DERIVATION - 35% Cutback					
Revenue Requirement	\$7,640,743	\$8,787,068	\$9,665,957	\$10,149,164	\$10,656,682
Total Consumption (ccf)	<u>2,811,150</u>	<u>2,811,150</u>	<u>2,836,450</u>	<u>2,861,978</u>	<u>2,887,736</u>
Rate per ccf	\$2.72	\$3.13	\$3.41	\$3.55	\$3.69
CONSUMPTION CHARGE DERIVATION - 50% Cutback					
Revenue Requirement	\$7,310,541	\$8,407,326	\$9,248,233	\$9,710,557	\$10,196,143
Total Consumption (ccf)	<u>2,162,423</u>	<u>2,162,423</u>	<u>2,181,885</u>	<u>2,201,522</u>	<u>2,221,335</u>
Rate per ccf	\$3.38	\$3.89	\$4.24	\$4.41	\$4.59

CCF – hundred cubic feet; one hundred cubic feet equals 748 gallons

4.4.4 Proposed Water Rates

Table 18 summarizes the proposed monthly water rates for the next five years including meter charges, consumption charges, and drought consumption charges. All accounts, including residential, commercial, and industrial customers, will be charged according to the proposed rate schedule shown. The first rate change is proposed to take effect on February 1, 2024, with subsequent rate increases effective each July 1 beginning in 2024 through 2027. For FY 2023/24, the proposed 35.0% revenue adjustment in the cash flow (Table 10) does not directly correlate to a 35.0% increase in rates due to the cost of service reallocation and the updated rate structure. The percentage increases for each rate category are shown below the table.

Table 18: Proposed Monthly Water Rates
City of Hanford
Utility Rate Study

Fiscal Year	Current [1]	PROPOSED				
		FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
<i>Effective Date</i>	<i>July 1, 2018</i>	<i>Feb 1, 2024</i>	<i>July 1, 2024</i>	<i>July 1, 2025</i>	<i>July 1, 2026</i>	<i>July 1, 2027</i>
METER CHARGES						
5/8", 3/4", & 1"	\$15.41	\$17.42	\$19.85	\$21.64	\$22.52	\$23.44
1-1/2" & 2"	\$21.88	\$31.89	\$36.34	\$39.62	\$41.23	\$42.91
3" & 4"	\$34.83	\$95.56	\$108.90	\$118.73	\$123.55	\$128.58
6"	\$54.26	\$292.35	\$333.16	\$363.26	\$378.01	\$393.37
8"	\$80.17	\$465.99	\$531.04	\$579.02	\$602.53	\$627.01
CONSUMPTION CHARGES (\$/CCF)						
All Customers	\$1.34	\$1.94	\$2.24	\$2.44	\$2.54	\$2.64
DROUGHT CONSUMPTION CHARGES (\$/CCF) [2]						
10% Water Cutback		\$2.10	\$2.42	\$2.64	\$2.75	\$2.86
20% Water Cutback		\$2.30	\$2.65	\$2.89	\$3.01	\$3.13
35% Water Cutback		\$2.72	\$3.13	\$3.41	\$3.55	\$3.69
50% Water Cutback		\$3.38	\$3.89	\$4.24	\$4.41	\$4.59

CCF – hundred cubic feet; one hundred cubic feet equals 748 gallons

1 - Current rates shown are for Inside City customers - Inside & Outside City customers are proposed to be billed the same rates going forward.

2 - Only to be implemented temporarily during water shortage emergencies.

Proposed % rate increases

<u>Meter Charges</u>						
5/8", 3/4", & 1"		13.0%	13.9%	9.0%	4.1%	4.1%
1-1/2" & 2"		45.7%	14.0%	9.0%	4.1%	4.1%
3" & 4"		174.4%	14.0%	9.0%	4.1%	4.1%
6"		438.8%	14.0%	9.0%	4.1%	4.1%
8"		481.3%	14.0%	9.0%	4.1%	4.1%
<u>Consumption Charge</u>		44.8%	15.5%	8.9%	4.1%	3.9%
<u>Drought Consumption Charges</u>						
10% Water Cutback	-	15.2%	9.1%	4.2%	4.0%	
20% Water Cutback	-	15.2%	9.1%	4.2%	4.0%	
35% Water Cutback	-	15.1%	8.9%	4.1%	3.9%	
50% Water Cutback	-	15.1%	9.0%	4.0%	4.1%	

4.5 Water Bill Impacts

Bill impacts to customers for the first year will vary based on meter size and actual consumption.

Moreover, water consumption, particularly for single family customers, typically varies due to seasonal variations in weather and/or other factors. Hence, a single customer could face a range of impacts throughout the year. Table 19 includes a sample of bill impacts at different levels of water use for single family residential customers with a 5/8", 3/4", or 1" meter.

Table 19: Sample Monthly Residential Water Bill Impacts

City of Hanford

Utility Rate Study

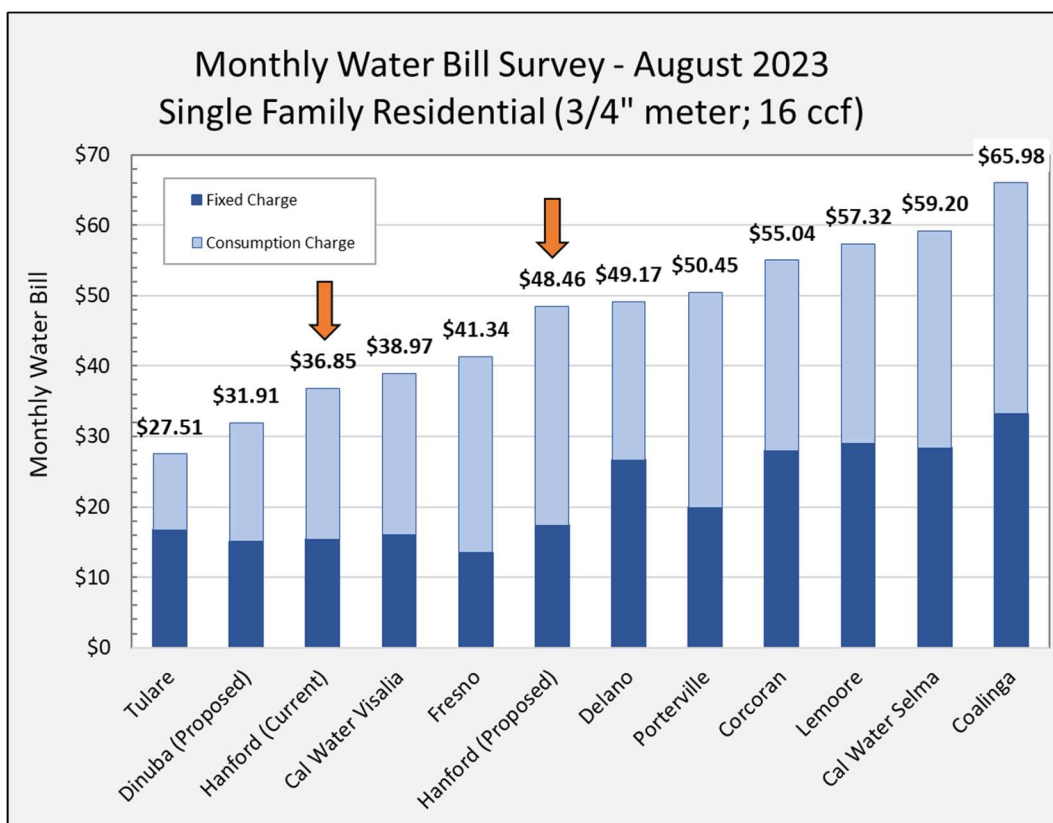
RESIDENTIAL BILL IMPACTS - 5/8", 3/4", & 1" METER

	Monthly Use (ccf)	Current Bill	Proposed				
			Feb 1, 2024	July 1, 2024	July 1, 2025	July 1, 2026	July 1, 2027
6 ccf							
Fixed Meter Charge - 5/8", 3/4", & 1"		\$15.41	\$17.42	\$19.85	\$21.64	\$22.52	\$23.44
Consumption Charge	6	<u>\$8.04</u>	<u>\$11.64</u>	<u>\$13.44</u>	<u>\$14.64</u>	<u>\$15.24</u>	<u>\$15.84</u>
Total Monthly Water Bill		\$23.45	\$29.06	\$33.29	\$36.28	\$37.76	\$39.28
\$ Change			\$5.61	\$4.23	\$2.99	\$1.48	\$1.52
% Change			23.9%	14.6%	9.0%	4.1%	4.0%
10 ccf							
Fixed Meter Charge - 5/8", 3/4", & 1"		\$15.41	\$17.42	\$19.85	\$21.64	\$22.52	\$23.44
Consumption Charge	10	<u>\$13.40</u>	<u>\$19.40</u>	<u>\$22.40</u>	<u>\$24.40</u>	<u>\$25.40</u>	<u>\$26.40</u>
Total Monthly Water Bill		\$28.81	\$36.82	\$42.25	\$46.04	\$47.92	\$49.84
\$ Change			\$8.01	\$5.43	\$3.79	\$1.88	\$1.92
% Change			27.8%	14.7%	9.0%	4.1%	4.0%
16 ccf							
Fixed Meter Charge - 5/8", 3/4", & 1"		\$15.41	\$17.42	\$19.85	\$21.64	\$22.52	\$23.44
Consumption Charge	16	<u>\$21.44</u>	<u>\$31.04</u>	<u>\$35.84</u>	<u>\$39.04</u>	<u>\$40.64</u>	<u>\$42.24</u>
Total Monthly Water Bill		\$36.85	\$48.46	\$55.69	\$60.68	\$63.16	\$65.68
\$ Change			\$11.61	\$7.23	\$4.99	\$2.48	\$2.52
% Change			31.5%	14.9%	9.0%	4.1%	4.0%
25 ccf							
Fixed Meter Charge - 5/8", 3/4", & 1"		\$15.41	\$17.42	\$19.85	\$21.64	\$22.52	\$23.44
Consumption Charge	25	<u>\$33.50</u>	<u>\$48.50</u>	<u>\$56.00</u>	<u>\$61.00</u>	<u>\$63.50</u>	<u>\$66.00</u>
Total Monthly Water Bill		\$48.91	\$65.92	\$75.85	\$82.64	\$86.02	\$89.44
\$ Change			\$17.01	\$9.93	\$6.79	\$3.38	\$3.42
% Change			34.8%	15.1%	9.0%	4.1%	4.0%
40 ccf							
Fixed Meter Charge - 5/8", 3/4", & 1"		\$15.41	\$17.42	\$19.85	\$21.64	\$22.52	\$23.44
Consumption Charge	40	<u>\$53.60</u>	<u>\$77.60</u>	<u>\$89.60</u>	<u>\$97.60</u>	<u>\$101.60</u>	<u>\$105.60</u>
Total Monthly Water Bill		\$69.01	\$95.02	\$109.45	\$119.24	\$124.12	\$129.04
\$ Change			\$26.01	\$14.43	\$9.79	\$4.88	\$4.92
% Change			37.7%	15.2%	8.9%	4.1%	4.0%

4.5.1 Regional Water Bill Survey

The following figure compares the City's current average monthly single family residential bill with those of surrounding agencies. The typical monthly water use for a single family customer is 16 ccf of water use. The City's current average water bill is \$36.85 per month. With the proposed increase for 2023/24, the average water bill is projected to be \$48.46, an increase of \$11.61. The City's current water rates are on the lower end of those charged and the proposed rates will be in the mid-range.

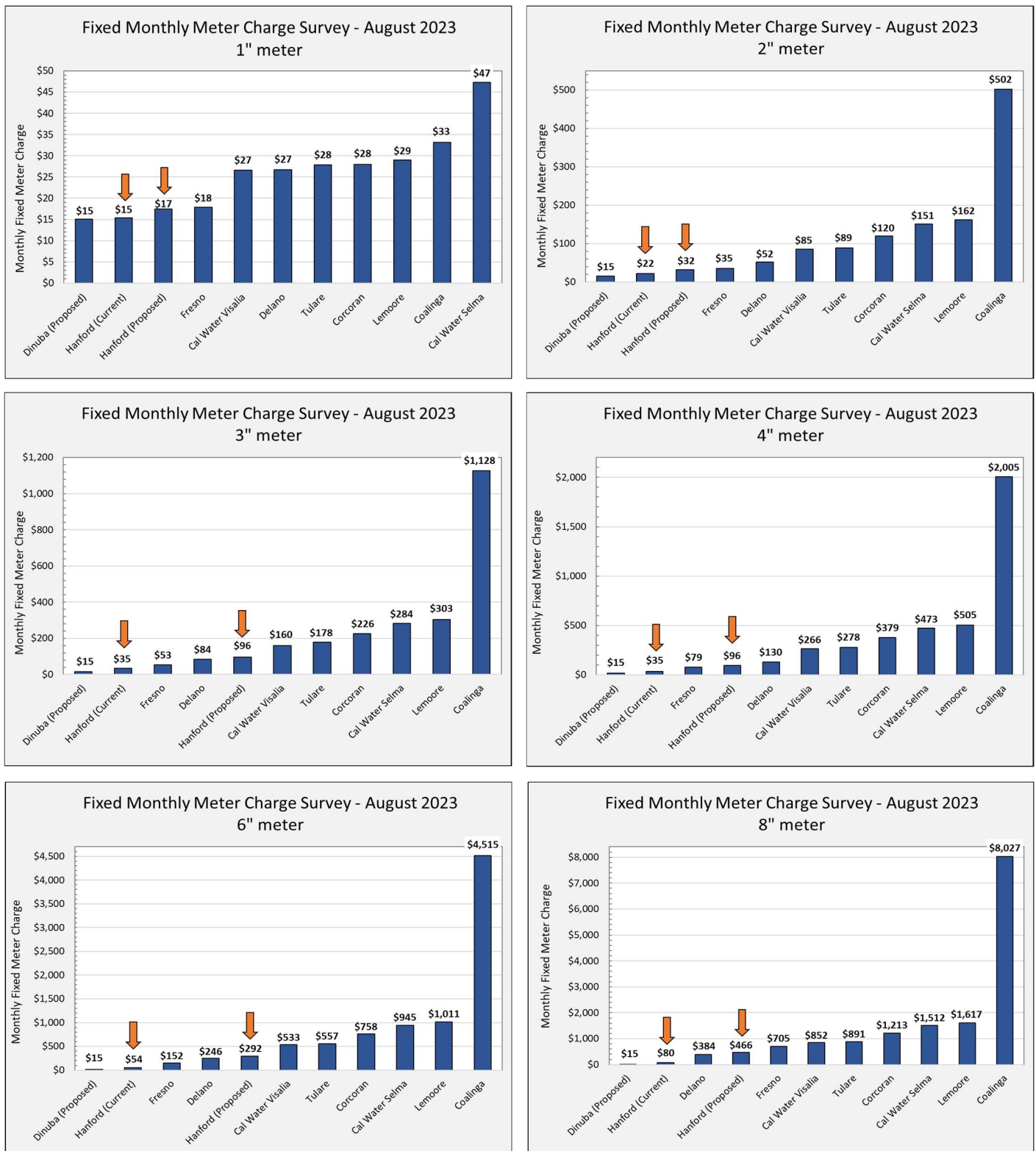
Figure 5: Monthly Single Family Residential Water Bill Survey



4.5.2 Survey of Fixed Monthly Meter Charges

As noted in Section 4.2.1, the City's current meter charges are out of alignment with the capacity equivalency of each meter size. As part of the rate survey process, the City's current and proposed fixed monthly charges for each meter size were compared with the corresponding charges for other local service providers, see Figure 6. For all meter sizes, the City's current meter charges are significantly lower than the average charges for other agencies. As shown in the charts below, even with the proposed increases to the fixed charges, the City's fixed charges will remain in the low- to mid-range for the local area.

Figure 6: Fixed Monthly Meter Charge Survey



SECTION 5: WASTEWATER REVENUE REQUIREMENT

Similar to the water utility, the wastewater utility's cost of service and revenue requirement is comprised of operating costs, capital improvement costs, and the need to maintain reasonable reserves.

5.1 Wastewater System Overview

The City of Hanford is responsible for operating and maintaining a safe, dependable sanitary sewer system composed of over 226 miles of sanitary sewer mains, 23 lift stations, a wastewater treatment plant (WWTP), a pretreatment program, and laboratory facilities. The City collects wastewater from customers within the City limits and some unincorporated areas. The collected flows are conveyed through a trunk system to the City's WWTP where they are treated and subsequently discharged to retention ponds before being delivered to farmlands for agricultural irrigation. The WWTP processes approximately 1.6 billion gallons of sewage each year. WWTP staff also conduct laboratory tests to monitor the performance of the plant, administer the industrial pretreatment program, and manage reclaimed water usage to ensure compliance with state reclamation discharge permits.

5.2 Wastewater Reserves

The accumulation of reasonable reserves is one factor to consider when determining the cost of service. Utilities should maintain reserves to fund issues such as unexpected costs and emergency repairs or to provide cash flow in case of customer billing or revenue collection issues. Moreover, fund reserves allow the City to maintain its financial health and positive credit ratings, especially during emergencies.

The City maintains two wastewater reserve funds – 1) an operating fund reserve and 2) a capital reserve fund reserve. As of the beginning of 2023/24, the wastewater utility had operations fund reserves of approximately \$1.05 million and capital and reserve fund reserves of approximately \$2.33 million. The recommended operating reserve target is 50 percent of annual operating costs plus one debt service payment, meaning current operating reserves are below the reserve target. Maintaining at least 25% of annual operating costs in reserves is in line with industry standards that recommend an operating reserve target to account for the time (at least 4 months) that it would take an agency to approve new rate increases to comply with Proposition 218. With the proposed revenue increases, it is projected the wastewater operations fund will meet the fund reserve target by the end of the fifth year.

5.3 Wastewater Capital Improvement Plan

Table 20 below provides the wastewater capital improvement plan (CIP) for all projects that will be funded through rates rather than impact fees. This rate study excludes projects funded by impact fees because they mitigate growth-related issues and should be funded by new development rather than existing ratepayers. The CIP includes funding for improvements to the City's WWTP, new equipment, and annual repairs and replacements. The total funded over the rate study period is \$7.43 million.

Table 20: Wastewater Capital Improvement Plan (rate funded)
City of Hanford
Utility Rate Study

Project Title	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	5-Year Total
2104 Valley Alarm Access Control WWTP	\$15,230	-	-	-	-	\$15,230
Utility Customer Payment Kiosks (2)	\$27,000	\$14,000	\$14,000	\$14,000	\$14,000	\$83,000
Wwtp Improvement Reserve	-	\$500,000	\$500,000	\$500,000	\$500,000	\$2,000,000
Unsch Main Exten/Repl-Wwtp	\$101,930	-	-	-	-	\$101,930
Sewer System Video Insp	\$18,000	-	-	-	-	\$18,000
Sewer Main Oversizing Req	\$92,180	-	-	-	-	\$92,180
2073 Utility Truck	-	-	\$90,000	-	-	\$90,000
2073 Pickup Truck	\$65,000	-	-	-	-	\$65,000
2073 Vacuum Truck	-	-	\$600,000	-	-	\$600,000
Lacey Blvd Widen Magna Carta to 13 th	-	-	-	\$400,000	-	\$400,000
2071 Spare Barscreen Motor	-	-	\$40,000	-	-	\$40,000
2071 Spare Motor Screw Pump	-	\$40,000	-	-	-	\$40,000
1750 Public Works Enclosed Warehouse	-	-	\$101,000	-	-	\$101,000
2071 Pickup Truck	-	\$65,000	-	\$65,000	-	\$130,000
Lacey Widen/Recon/10 th -Sierra	\$153,730	\$245,550	\$94,030	-	-	\$493,310
Spare Pumps	\$92,640	-	-	-	-	\$92,640
Manhole Repr/Coating Project	\$104,720	\$75,000	\$75,000	\$75,000	\$75,000	\$404,720
Protective Grating	\$50,000	-	-	-	-	\$50,000
2040 Fleet Div-Def Dispenser for Fuel Island	\$12,000	-	-	-	-	\$12,000
Annual Repairs & Replacement	-	\$500,000	\$500,000	\$500,000	\$500,000	\$2,000,000
<u>Annual Lift Station Rehab</u>	<u>-</u>	<u>\$150,000</u>	<u>\$150,000</u>	<u>\$150,000</u>	<u>\$150,000</u>	<u>\$600,000</u>
Total Wastewater CIP	\$732,430	\$1,589,550	\$2,164,030	\$1,704,000	\$1,239,000	\$7,429,010

5.4 Wastewater Cash Flow Projection

Table 21 provides the wastewater cash flow projection for the five-year period beginning in FY 2023/24 through FY 2027/28. The cash flow is based on the City's *FY 2023/24 and 2024/25 Budget* and includes revenue increases such that the City covers operating and debt service costs, funds all proposed capital improvement projects, and rebuilds adequate reserves. The proposed revenue increases over the next five years are 35.0% in the first year, followed by 12.0%, 12.0%, 5.0%, and 5.0%. In the first year, the 35.0% increase is applied to the City's total wastewater revenue increase and does not necessarily reflect the level of increase for individual customers. Each customer's bill impacts will depend on customer class. The first rate increase is proposed to go into effect February 1, 2024, followed by subsequent increases effective each July 1 beginning in 2024 through 2027.

5.4.1 Wastewater Revenues

As shown in Table 7, current wastewater rates are estimated to generate \$5.3 million in revenues. For FY 2023/24, rate revenues are projected at \$5.95 million assuming the City will collect rates at current revenues until the proposed rate increase goes into effect after February 1. Rate revenues are the main revenue source for the wastewater utility. Other revenue sources include penalty fees, interest income, and lease proceeds. These other sources generate about \$154,000 annually, which is projected to remain constant over the next five years. In FY 2023/24, it is proposed that the stormwater fund lends the wastewater fund \$1.3 million to eliminate the wastewater fund's operating deficit.

5.4.2 Wastewater Expenses

The cash flow uses the City's *FY 2023/24 and 2024/25 Budget* as the base for projected expenses. Most operating expenses are projected to increase 3.0% annually beginning in 2025/26, except for Salaries & Benefits which are escalated by 7.0% annually beginning in 2025/26. An additional \$120,000 is also added to projected Salaries & Benefits in 2024/25 for a new position per City direction. The wastewater fund's share of payments for the principle for the Pension Obligation Bond are included as a new expense. Annual depreciation is not included as a cash expense. Four equal installments of \$325,000 beginning in FY 2024/25 through FY 2027/28 are included for the wastewater fund to pay back the interfund loan from the storm drain fund.

As shown in Table 20, the total five-year CIP for the wastewater fund equals \$7.4 million. It is assumed the City will contribute \$2 million upfront for the Wastewater Treatment Expansion Project, which is included in the CIP. The net operating cost increase for WWTP expansion is estimated at \$165,000 annually beginning in FY 2025/26 based on projections by City staff.

5.4.3 Debt Service

It is also imperative that the wastewater fund generate sufficient rate revenues to maintain the debt service coverage ratio for its existing debt obligations. A debt service coverage ratio is a financial measure of an agency's ability to repay outstanding debt. For the purposes of the City's wastewater fund, the required debt service coverage ratio means that annual sewer net operating revenues (gross revenues less operating and maintenance expenses) must be at least 1.2 times the annual debt service payment. Failure to meet the debt service ratio on an annual basis is considered to be technical default. Thus, rates and fees must be set to meet this legal requirement.

The wastewater utility currently has three outstanding debt obligations which count toward its debt service coverage requirements. There are two Wastewater Revenue Refunding Bonds, Series 2012 and Series 2015, in addition to a 2002 loan from the California Infrastructure and Economic Development Bank (IBank). The IBank loan is in the amount of \$10 million with a 30-year term and an annual interest rate of 3.5%. In July 2012, the City issued the \$13.165 million Wastewater Revenue Refunding Bonds, Series 2012 bearing interest of 3.0% to 5.0% payable semi-annually to refund Indentures from 1999 and 2002. In January 2015, the City issued the \$3.885 million Wastewater Revenue Refunding Bonds, Series

2015 to refund Variable Rate Demand Sewer System Refunding Revenue Bonds, 1996 Series A. Interest of 2.0% to 4.0% is payable semi-annually.

5.4.4 Five-Year Summary

Figure 7 graphically shows the wastewater cash flow projection for the five-year rate study period including both operating and capital expenses. In the first few years, expenses will slightly exceed revenues. At the end of the five-year period, the City's revenues are projected to be in line with total expenses.

Figure 7: Wastewater Cash Flows

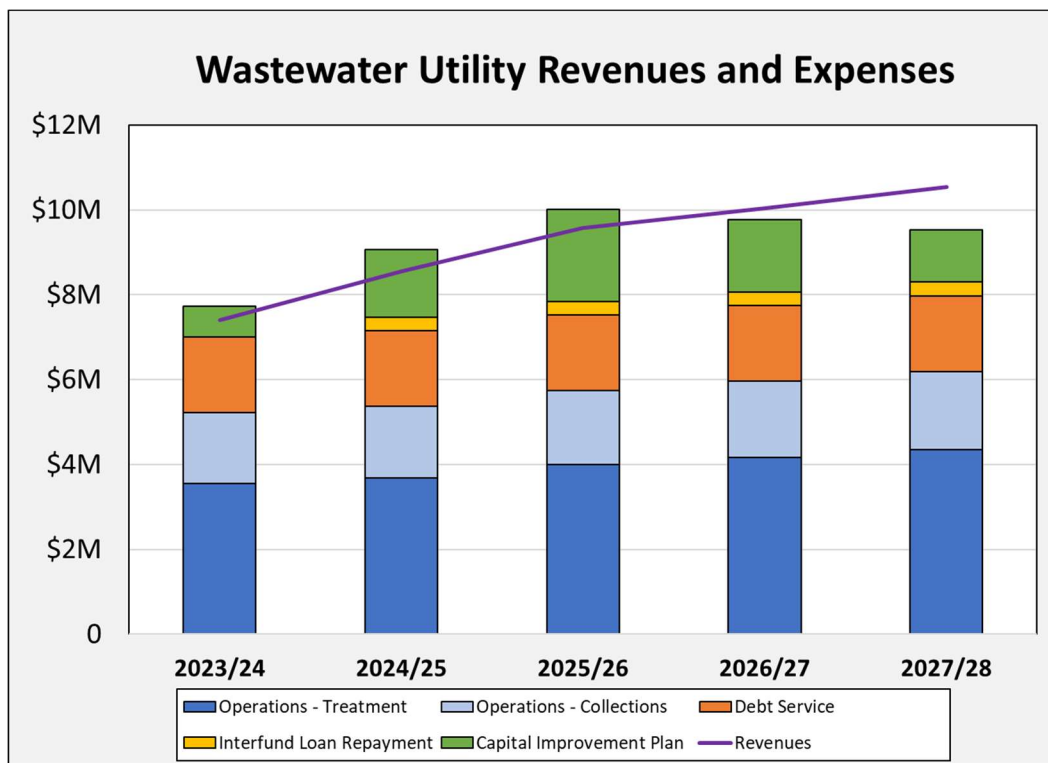


Table 21: Wastewater Cash Flow Projection
City of Hanford
Utility Rate Study

	Years 1 -5: Proposition 218				
	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
Rate Revenue Increase	35.0%	12.0%	12.0%	5.0%	5.0%
Rate Increase Effective	Feb 1, 2024	Jul 1, 2024	Jul 1, 2025	Jul 1, 2026	Jul 1, 2027
BEGINNING FUND BALANCE [1]	\$1,046,000	\$1,452,000	\$1,534,000	\$1,553,000	\$1,824,000
REVENUES					
Rate Revenues	5,954,000	8,405,000	9,414,000	9,885,000	10,379,000
<u>Non-Rate Revenue</u>					
Penalties	55,000	55,000	55,000	55,000	55,000
Interest Income	2,000	2,000	2,000	2,000	2,000
Lease & Other Fin Proceeds	93,000	93,000	93,000	93,000	93,000
Bad Debts	<u>4,000</u>	<u>4,000</u>	<u>4,000</u>	<u>4,000</u>	<u>4,000</u>
Subtotal Non-Rate Revenues	154,000	154,000	154,000	154,000	154,000
Interfund Loan	<u>1,300,000</u>				
Total Revenue	7,408,000	8,559,000	9,568,000	10,039,000	10,533,000
EXPENSES					
<u>Operating Expenses [2]</u>					
Treatment Division					
Salaries and Benefits [3]	1,060,000	1,236,000	1,323,000	1,416,000	1,515,000
Supplies and Equipment	696,000	694,000	715,000	736,000	758,000
Outside Services	248,000	206,000	212,000	218,000	225,000
City Services Allocation	369,000	369,000	380,000	391,000	403,000
POB Principal [4]	142,000	139,000	139,000	139,000	145,000
Chemicals	435,000	435,000	448,000	461,000	475,000
Disposal	96,000	96,000	99,000	102,000	105,000
Utilities	511,000	511,000	526,000	542,000	558,000
WWTP Net Cost Increase [5]	0	0	165,000	165,000	165,000
Collections Division					
Salaries and Benefits [3]	500,000	520,000	536,000	552,000	569,000
Supplies and Equipment	311,000	311,000	320,000	330,000	340,000
Outside Services	19,000	18,000	19,000	20,000	21,000
City Services Allocation	748,000	748,000	770,000	793,000	817,000
Chemicals	25,000	25,000	26,000	27,000	28,000
Utilities	<u>68,000</u>	<u>68,000</u>	<u>70,000</u>	<u>72,000</u>	<u>74,000</u>
Subtotal O&M	5,228,000	5,376,000	5,748,000	5,964,000	6,198,000
Net Operating Revenue	2,180,000	3,183,000	3,820,000	4,075,000	4,335,000
<u>Debt Service</u>					
Rev Refunding Bonds, Series 2012	925,000	923,000	926,000	926,000	926,000
Rev Refunding Bonds, Series 2015	290,000	294,000	292,000	291,000	291,000
2002 IBank Loan	<u>559,000</u>	<u>559,000</u>	<u>558,000</u>	<u>558,000</u>	<u>558,000</u>
Subtotal Debt Service	1,774,000	1,776,000	1,776,000	1,775,000	1,775,000
Transfer to Capital Fund	0	1,000,000	1,700,000	1,704,000	1,239,000
Transfer to Repay Interfund Loan	0	325,000	325,000	325,000	325,000
Total Net Revenues (Operations Fund)	406,000	82,000	19,000	271,000	996,000
OPERATIONS ENDING BALANCE	1,452,000	1,534,000	1,553,000	1,824,000	2,820,000
Operations Reserve Fund Target [6]	2,610,000	2,621,000	2,647,000	2,672,000	2,700,000
Operating Reserve Target Met?	no	no	no	no	yes
Debt Service Coverage (Target = 1.20x) [7]	1.23	1.79	2.15	2.30	2.44
Target Met?	yes	yes	yes	yes	yes

	Years 1 -5: Proposition 218				
	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
CAPITAL & RESERVE BEGINNING FUND BALANCE [8]	2,325,000	1,593,000	1,003,000	539,000	539,000
<u>Revenues</u>					
Transfer from Operations Fund	0	1,000,000	1,700,000	1,704,000	1,239,000
<u>Capital Expenses</u>					
Capital Plan	<u>732,000</u>	<u>1,590,000</u>	<u>2,164,000</u>	<u>1,704,000</u>	<u>1,239,000</u>
Subtotal Capital Expenses	732,000	1,590,000	2,164,000	1,704,000	1,239,000
Net Revenues	(732,000)	(590,000)	(464,000)	0	0
CAPITAL & RESERVE ENDING FUND BALANCE	1,593,000	1,003,000	539,000	539,000	539,000

- 1 - Estimated Wastewater Operations cash fund balance from City staff
- 2 - Does not include depreciation
- 3 - Escalated by 7% beginning in FY 2025/26
- 4 - Payment shown only includes principle. Interest is already included in FY 2023/24 budget.
- 5 - Net savings from WWTP plant (lease payments less electricity savings)
- 6 - Recommended target is 6 months O&M Expenses plus annual debt service cost.
- 7 - Net Operating Revenue divided by Total Debt Service
- 8 - Estimated Wastewater Capital & Reserve cash fund balance from City staff

SECTION 6: WASTEWATER COST ALLOCATION AND RATE DESIGN

The revenue requirements detailed in the previous section determine the amount of revenue to be recovered from wastewater rates. The cost of service allocation determines how revenues will be recovered from customers based on their estimated impact on the wastewater system. Proposition 218 requires that agencies providing “property-related services” (including wastewater service) set rates and charges that are based on the cost of providing those services.

6.1 Wastewater Cost Allocation

The determination of the sewer flows, sewer loadings, and the revenue requirements of the wastewater utility provide the basis for performing the cost of service analysis. The concept of proportionate allocation to each customer class indicates that allocations should take into consideration the quantity of effluent a customer contributes in addition to the strength of sewer effluent.

The key factors used to assign wastewater utility costs are estimated effluent (flow) going to the wastewater treatment plant and effluent strengths, measured in biological oxygen demand (BOD) and suspended solids (SS). Higher levels of BOD or SS equate to increased treatment costs. The total revenue requirement shown in the wastewater cash flow projection is the net cost of providing service and is allocated to the flow, BOD, and SS parameters. These allocations are then used as the basis to develop unit rates for the sewer parameters and to assign costs to each customer class in proportion to the sewer services rendered.

Wastewater expenses are allocated to the following categories (a) Customer Service, (b) Flow, (c) Biochemical Oxygen Demand (BOD), and (d) Suspended Solids (SS).

- *Customer Service Costs:* Customer service costs represent the fixed expenditures of the sewer utility, including personnel costs and overhead expenses.
- *Flow Costs:* Volume- or flow-related costs that vary with the total quantity of wastewater collected. Because most agencies do not meter wastewater discharges, metered water consumption is used to estimate contributed average wastewater volume units of service.
- *Strength Costs:* Strength-related costs are those expenditures associated with the additional handling and treatment of high strength sewer. Sewer strength is typically measured in BOD and SS. Increased levels of BOD or SS typically equate to increased treatment costs.

Table 22 provides the proposed cost allocation using FY 2023/24 as the test year. The budgeted expenses were allocated to each category based on how the City incurs each cost. The overall proposed allocation is 14.8% to customer service, 46.0% to flow, 19.6% to BOD, and 19.6% to SS.

Table 22: Wastewater Cost Allocation
City of Hanford
Utility Rate Study

Budgeted Expenses	Budget FY 2023/24	Customer Service	Flow	BOD	SS
<u>Operating Expenses</u>					
Treatment Division					
Salaries and Benefits	\$1,060,000	25.0%	15.0%	30.0%	30.0%
Supplies and Equipment	\$696,000	0.0%	50.0%	25.0%	25.0%
Outside Services	\$248,000	0.0%	50.0%	25.0%	25.0%
City Services Allocation	\$369,000	25.0%	15.0%	30.0%	30.0%
POB Principal	\$142,000	25.0%	15.0%	30.0%	30.0%
Chemicals	\$435,000	0.0%	0.0%	50.0%	50.0%
Disposal	\$96,000	0.0%	0.0%	50.0%	50.0%
Utilities	<u>\$511,000</u>	<u>0.0%</u>	<u>80.0%</u>	<u>10.0%</u>	<u>10.0%</u>
Subtotal Treatment	\$3,557,000	\$392,750	\$1,116,450	\$1,023,900	\$1,023,900
Collections Division					
Salaries and Benefits	\$500,000	0.0%	100.0%	0.0%	0.0%
Supplies and Equipment	\$311,000	0.0%	100.0%	0.0%	0.0%
Outside Services	\$19,000	50.0%	50.0%	0.0%	0.0%
City Services Allocation	\$748,000	50.0%	50.0%	0.0%	0.0%
Chemicals	\$25,000	0.0%	100.0%	0.0%	0.0%
Utilities	<u>\$68,000</u>	<u>0.0%</u>	<u>100.0%</u>	<u>0.0%</u>	<u>0.0%</u>
Subtotal Collections	\$1,671,000	\$383,500	\$1,287,500	\$0	\$0
Composite Collection & Treatment		14.8%	46.0%	19.6%	19.6%
<u>Non-Operating Expenses (5-Year Averages)</u>					
Revenue Refunding Bonds, Series 2012	\$925,200	14.8%	46.0%	19.6%	19.6%
Revenue Refunding Bonds, Series 2015	\$291,600	14.8%	46.0%	19.6%	19.6%
Capital Costs (5-year avg)	<u>\$1,485,800</u>	<u>14.8%</u>	<u>46.0%</u>	<u>19.6%</u>	<u>19.6%</u>
Subtotal Non-Operating	\$2,702,600	\$401,280	\$1,242,715	\$529,302	\$529,302
Total	\$7,930,600	\$1,177,530	\$3,646,665	\$1,553,202	\$1,553,202
Proposed Cost Allocation %	100.0%	14.8%	46.0%	19.6%	19.6%

6.2 Wastewater Rate Design

The cost of service analysis calculated the revenue requirements for each customer class. The next step is rate design which determines how those revenue requirements are collected from each class based on their estimated impact on the sewer system. As part of the rate study process, the City reviewed its current rate structure. Sewer rates in California are typically charged as either a fixed charge per equivalent dwelling unit (EDU), a volume rate charged per unit of wastewater flow, or as a combination of both fixed and volume rates. Ultimately, this study recommends maintaining the current rate structure. The categories of charges and customer classes are proposed to remain the same, but the

amounts charged to each customer will be updated based on the new cost of service and the adjusted allocation to each customer class.

6.3 Wastewater Flows

The City does not directly meter the sewer flow of individual utility accounts for non-industrial customers. However, water use can be used as a proxy for sewer flow. For residential customers, it is necessary to isolate low water use periods during the winter to estimate sewer flow to better estimate indoor-only water use. Many customers typically have higher water use in the summer due to irrigation water use which occurs outdoors and does not flow into the wastewater system.

Total system flows and pollutant loads by customer class are estimated in Table 23. Pollutant loads consist of biochemical oxygen demand (BOD) and suspended solids (SS). Single family residential flows are estimated as 8 ccf per month and multi-family residential flows are estimated as 6 ccf per month based on winter water usage data from 2021 and 2022. Non-residential flows are estimated based on billed flows from 2022 and 2023. The strength factors are based on industry standard estimates.

Table 23: Annual Sewer Flows & Loadings
City of Hanford
Utility Rate Study

Customer Class	Flow (ccf)	Wastewater Strength (mg/l)		Wastewater Loadings (lbs)	
		BOD	SS	BOD	SS
Single Family	1,529,000	175	175	1,669,218	1,669,218
Multi Family	307,000	175	175	335,154	335,154
<u>Metered Water [1]</u>					
Group A: Domestic	130,000	175	175	141,922	141,922
Group B: Low Strength	169,000	135	135	142,327	142,327
Group C: Medium Strength	13,000	300	300	24,329	24,329
Group D: High Strength	80,000	500	500	249,533	249,533
Industrial	194,000	Varies		33,269	27,119
Schools	21,000	175	175	22,926	22,926
Septage	1,000	3500	3500	21,834	21,834
Total	2,444,000			2,640,513	2,634,363

Mg/l – milligrams per liter; CCF – hundred cubic feet; one hundred cubic feet equals 748 gallons

1 - Metered Water Use Categories:

Group A - Domestic Strength: Mobile home parks, motels, public buildings, hospitals, nursing homes, churches, fraternal lodges, service stations and automotive centers

Group B - Low Strength: Car washes, laundromats, retail, commercial and professional establishments

Group C - Medium Strength: Mixed use commercial centers including food services with single water service

Group D - High Strength: Restaurants, supermarkets, grocery stores, mortuaries

6.4 Wastewater Rate Derivation

As noted in the cost allocation section, wastewater rates are determined based on customer service costs as well as the amount of wastewater flow and pollutants flushed into the sewer system.

6.4.1 Unit Cost Calculation

Total flow and pollutant loading estimates are used to derive unit costs for customer service, flow, BOD, and SS as shown below in Table 24. The total revenue requirement to be collected from rates is divided between each category according to the percentages derived in the cost allocation (Table 22). The revenue requirement for each category is then divided by the appropriate number of billing units from Table 23 to calculate a unit charge.

Table 24: Unit Cost Calculation
City of Hanford
Utility Rate Study

Cost Allocation	Total	Cust. Serv.	Flow	BOD	SS
Cost Allocation %	100.0%	14.8%	46.0%	19.6%	19.6%
FY2024 Rev. Requirement [1]	\$7,504,650	\$1,114,300	\$3,450,800	\$1,469,800	\$1,469,800
Billing Units		2,444,000 ccf/year	2,444,000 ccf/year	2,640,513 lbs/year	2,634,363 lbs/year
Rate		\$0.46 \$/ccf	\$1.41 \$/ccf	\$0.56 \$/lb	\$0.56 \$/lb

1 - 12 months of revenue with proposed rate increases

6.4.2 FY 2023/24 Rate Derivation

Table 25 details the rate derivation for proposed FY 2023/24 rates using the unit costs from Table 24. The flow charge per ccf is based on the customer service and flow unit costs per ccf. The strength multipliers shown in Table 23 for each customer class are applied to the BOD and SS unit costs. For residential customers, the unit costs are applied to estimated monthly flows to derive a monthly fixed charge.

Table 25: Sewer Rate Calculation
City of Hanford
Utility Rate Study

Customer Class	Flow (ccf)	BOD	SS	Total
RESIDENTIAL (Per dwelling unit)				
Single Family [1]	\$14.94	\$4.86	\$4.86	\$24.67
Multi-Family/Duplex [2]	\$11.21	\$3.65	\$3.65	\$18.51
NON-RESIDENTIAL				
<u>Metered Water (Per ccf) [3]</u>				
Group A: Domestic	\$1.87	\$0.61	\$0.61	\$3.08
Group B: Low Strength	\$1.87	\$0.47	\$0.47	\$2.81
Group C: Medium Strength	\$1.87	\$1.04	\$1.04	\$3.95
Group D: High Strength	\$1.87	\$1.74	\$1.74	\$5.34
Schools (per student ADA) [4]	-	-	-	\$0.74
Septage (per 1,000 gallons)	\$2.50	\$16.25	\$16.29	\$35.03
Industrial	\$1.87	-	-	\$1.87

Figures in table are unrounded

1 - Estimated monthly single family flow is 8 ccf based on winter water use data

2 - Estimated monthly multi-family flow is 6 ccf based on winter water use data

3 - Per hundred cubic feet (ccf)

4 - Estimated flow per student is 6 gallons per day based on industry standard estimates

6.4.3 Proposed Wastewater Rates

The five-year proposed wastewater rate schedule is provided below in Table 26. The rates for 2023/24 are based on the calculations in Table 25. For the following years, rates are escalated by the percentage increases shown in the cash flow projection (Table 21).

Table 26: Proposed Wastewater Rates
City of Hanford
Utility Rate Study

Customer Class	Current Rates	PROPOSED				
		FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
RESIDENTIAL (Per dwelling unit)						
Single Family	\$17.86	\$24.67	\$27.63	\$30.95	\$32.50	\$34.13
Multi-Family/Duplex	\$16.93	\$18.51	\$20.73	\$23.22	\$24.38	\$25.60
NON-RESIDENTIAL						
<u>Metered Water (Per ccf) [1]</u>						
Group A: Domestic	\$1.54	\$3.08	\$3.45	\$3.86	\$4.05	\$4.25
Group B: Low Strength	\$1.44	\$2.81	\$3.15	\$3.53	\$3.71	\$3.90
Group C: Medium Strength	\$2.15	\$3.95	\$4.42	\$4.95	\$5.20	\$5.46
Group D: High Strength	\$2.88	\$5.34	\$5.98	\$6.70	\$7.04	\$7.39
Schools (per student ADA) [2]	\$0.51	\$0.74	\$0.83	\$0.93	\$0.98	\$1.03
Septage (per 1,000 gallons)	\$26.19	\$35.03	\$39.23	\$43.94	\$46.14	\$48.45
Industrial						
Flow (per mg)	\$1,561.56	\$2,497.17	\$2,796.83	\$3,132.45	\$3,289.07	\$3,453.52
BOD (per lb)	\$0.173	\$0.557	\$0.623	\$0.698	\$0.733	\$0.770
SS (per lb)	\$0.167	\$0.558	\$0.625	\$0.700	\$0.735	\$0.772

1 - Per hundred cubic feet (ccf)

2 - ADA - average daily attendance

6.5 Wastewater Bill Impacts

Due to the updated cost of service allocation, the bill impacts to customers for the first year will vary based on customer class. Table 27 provides the percentage change in each rate category for each year of the rate study period. For FY 2023/24, the percentage change for each customer does not align with the percentage increase shown in the cash flow due to the reconfiguration of the cost allocation and the unit cost components used to calculate the rates. Following the first year, each customer's monthly rate will increase as shown in the cash flow projection (Table 21).

Table 27: Proposed Wastewater Rate Increases
City of Hanford
Utility Rate Study

Customer Class	Current Rates	PROPOSED					
		FY2023/24		FY2024/25	FY2025/26	FY2026/27	FY2027/28
RESIDENTIAL (Per dwelling unit)							
Single Family	\$17.86	\$24.67	38%	12%	12%	5%	5%
Multi-Family/Duplex	\$16.93	\$18.51	9%	12%	12%	5%	5%
NON-RESIDENTIAL							
<u>Metered Water (Per ccf) [1]</u>							
Group A: Domestic	\$1.54	\$3.08	100%	12%	12%	5%	5%
Group B: Low Strength	\$1.44	\$2.81	95%	12%	12%	5%	5%
Group C: Medium Strength	\$2.15	\$3.95	84%	12%	12%	5%	5%
Group D: High Strength	\$2.88	\$5.34	85%	12%	12%	5%	5%
Schools (per student ADA) [2]	\$0.51	\$0.74	44%	12%	12%	5%	5%
Septage (per 1,000 gallons)	\$26.19	\$35.03	34%	12%	12%	5%	5%
Industrial							
Flow (per mg)	\$1,561.56	\$2,497.17	60%	12%	12%	5%	5%
BOD (per lb)	\$0.173	\$0.557	221%	12%	12%	5%	5%
SS (per lb)	\$0.167	\$0.558	234%	12%	12%	5%	5%

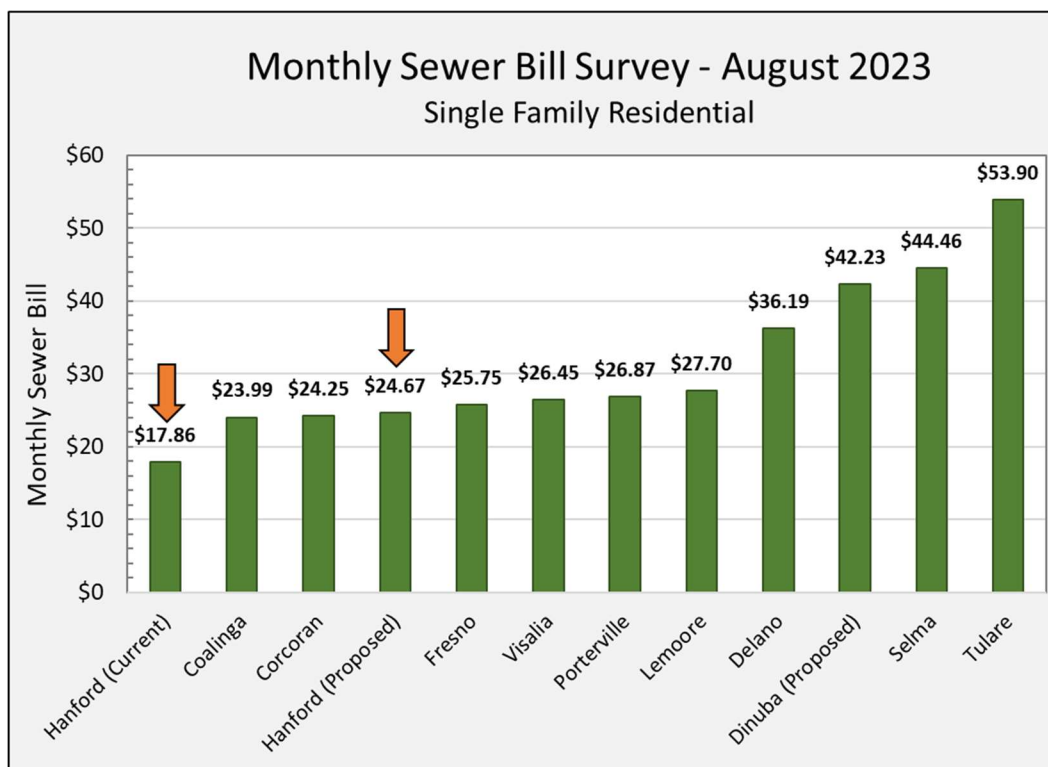
1 - Per hundred cubic feet (ccf)

2 - ADA – average daily attendance

6.5.1 Residential Bill Impacts

Residential customers are proposed to have a bill increase from \$17.86 per month to \$24.67 per month, as shown in Figure 8. Figure 8 also shows the current monthly wastewater bills of other local agencies. Despite the bill increase, the City's monthly residential wastewater bill still remains on the lower end when compared to the surveyed agencies.

Figure 8: Monthly Single Family Residential Wastewater Bill Survey



6.5.2 Commercial Bill Impacts

For FY 2023/24, the bill impacts for commercial customers will depend on actual consumption and customer class. Table 28 includes a sample of commercial sewer bill impacts for each customer class at different levels of monthly water use.

Table 28: Sample Monthly Non-Residential/Commercial Sewer Bill Impacts
City of Hanford
Utility Rate Study

GROUP A: DOMESTIC STRENGTH

	Monthly Use (ccf)	Current Bill	Proposed				
			Feb 1, 2024	Jul 1, 2024	Jul 1, 2025	Jul 1, 2026	Jul 1, 2027
Domestic Strength - 15 ccf	15	\$23.10					
Total Sewer Bill			\$46.20	\$51.75	\$57.90	\$60.75	\$63.75
\$ Change			\$23.10	\$5.55	\$6.15	\$2.85	\$3.00
% Change			100.0%	12.0%	11.9%	4.9%	4.9%
Domestic Strength - 30 ccf	30	\$46.20					
Total Sewer Bill			\$92.40	\$103.50	\$115.80	\$121.50	\$127.50
\$ Change			\$46.20	\$11.10	\$12.30	\$5.70	\$6.00
% Change			100.0%	12.0%	11.9%	4.9%	4.9%

GROUP B: LOW STRENGTH

	Monthly Use (ccf)	Current Bill	Proposed				
			Feb 1, 2024	Jul 1, 2024	Jul 1, 2025	Jul 1, 2026	Jul 1, 2027
Low Strength - 10 ccf	10	\$14.40					
Total Sewer Bill			\$28.10	\$31.50	\$35.30	\$37.10	\$39.00
\$ Change			\$13.70	\$3.40	\$3.80	\$1.80	\$1.90
% Change			95.1%	12.1%	12.1%	5.1%	5.1%
Low Strength - 20 ccf	20	\$28.80					
Total Sewer Bill			\$56.20	\$63.00	\$70.60	\$74.20	\$78.00
\$ Change			\$27.40	\$6.80	\$7.60	\$3.60	\$3.80
% Change			95.1%	12.1%	12.1%	5.1%	5.1%

GROUP C: MEDIUM STRENGTH

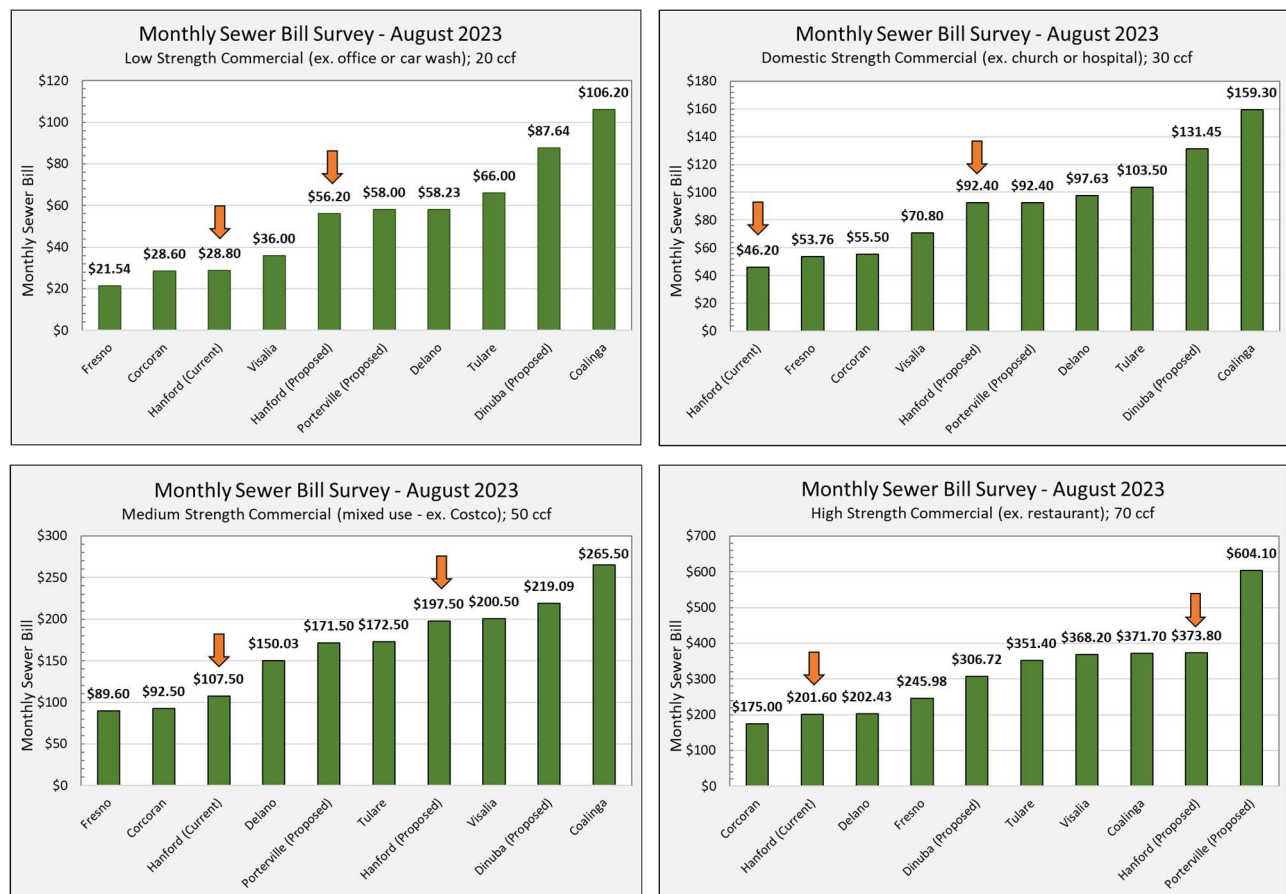
	Monthly Use (ccf)	Current Bill	Proposed				
			Feb 1, 2024	Jul 1, 2024	Jul 1, 2025	Jul 1, 2026	Jul 1, 2027
Medium Strength - 30 ccf	30	\$64.50					
Total Sewer Bill			\$118.50	\$132.60	\$148.50	\$156.00	\$163.80
\$ Change			\$54.00	\$14.10	\$15.90	\$7.50	\$7.80
% Change			83.7%	11.9%	12.0%	5.1%	5.0%
Medium Strength - 50 ccf	50	\$107.50					
Total Sewer Bill			\$197.50	\$221.00	\$247.50	\$260.00	\$273.00
\$ Change			\$90.00	\$23.50	\$26.50	\$12.50	\$13.00
% Change			83.7%	11.9%	12.0%	5.1%	5.0%

GROUP D: HIGH STRENGTH

	Monthly Use (ccf)	Current Bill	Proposed				
			Feb 1, 2024	Jul 1, 2024	Jul 1, 2025	Jul 1, 2026	Jul 1, 2027
High Strength - 70 ccf	70	\$201.60					
Total Sewer Bill			\$373.80	\$418.60	\$469.00	\$492.80	\$517.30
\$ Change			\$172.20	\$44.80	\$50.40	\$23.80	\$24.50
% Change			85.4%	12.0%	12.0%	5.1%	5.0%
High Strength - 100 ccf	100	\$288.00					
Total Sewer Bill			\$534.00	\$598.00	\$670.00	\$704.00	\$739.00
\$ Change			\$246.00	\$64.00	\$72.00	\$34.00	\$35.00
% Change			85.4%	12.0%	12.0%	5.1%	5.0%

The commercial bill impacts to each customer class were also surveyed in comparison to other local agencies, see Figure 9. For each strength category, a sample level of water usage was chosen and compared to the corresponding charge that the same customer would face in another local agency. Though all agencies surveyed charge variable rates per unit of water consumed by commercial customers, it should be noted that the subcategories used in other cities do not directly mirror those used by the City of Hanford. Some agencies do not have different charges based on wastewater strength, whereas others have more than four categories for commercial customers.

Figure 9: Commercial Monthly Wastewater Bill Surveys by Strength Category



SECTION 7: STORM DRAINAGE REVENUE REQUIREMENT

The storm utility's cost of service and revenue requirement is comprised of operating costs, capital improvement costs, and the need to maintain reasonable reserves. Storm drain fees are intended to fund capital improvement programs, operations and maintenance, clean water programs to mitigate the pollutants in stormwater, and other environmental services related to storm water. Ongoing maintenance of storm drain pipes is important in reducing risks of flooding and sink holes in local neighborhoods.

7.1 Storm Drainage System Overview

The City operates and maintains a storm drainage system that covers the majority of the area within the City limits. The storm drainage system consists of 30 pump stations, 56 miles of pipeline ranging in size from 6 to 60 inches, 138 inverted siphons, 974 drainage inlets, and 181 acres of drainage basins and drainage ditches. The storm drainage system removes rainfall from surface streets and disposes of the accumulated stormwater in drainage basins and canals that are located throughout the City.

7.2 Storm Drainage Reserves

The City maintains two storm drainage reserve funds – 1) an operating fund reserve and 2) a capital reserve fund reserve. As of the beginning of FY 2023/24, the storm drainage utility had operations fund reserves of approximately \$5.72 million and capital and reserve fund reserves of negative \$730,000. The proposed fund balance target for the operations fund is equal to 50% of annual operating expenses per City policy. This is in line with industry standards that recommend an operating reserve target of at least 25% of annual expenses to account for the time (at least 4 months) that it would take an agency to approve new rate increases to comply with Proposition 218.

Adequate fund reserves protect the City when faced with unforeseen financial challenges such as emergency expenses or revenue deficits. Fund reserves allow the City to maintain its financial health and positive credit ratings, especially during emergencies. Moreover, funding can be drawn from reserves to supplement rate revenues lost during emergencies or other unexpected situations. The City can also choose to use reserves to smooth cash flows and mitigate impacts to ratepayers.

7.3 Storm Drainage Capital Improvement Plan

Table 29 provides the storm drainage utility's capital improvement plan by year for the rate study period, totaling \$3.58 million. All storm capital projects will be funded with rate revenues. Major projects include widening streets, removing trees, and repairing basins.

Table 29: Storm Drainage Capital Improvement Program (CIP)
City of Hanford
Utility Rate Study

Project Title	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	5-Year Total
Courthouse Parking Lot Reconstruction	-	\$310,000	-	-	-	\$310,000
Utility Customer Payment Kiosks (2)	\$27,000	\$14,000	\$14,000	\$14,000	\$14,000	\$83,000
Houston Av Pipeline/Sand Slough	\$111,390	-	-	-	-	\$111,390
Storm Drain Pump #39	\$70,000	-	-	-	-	\$70,000
Lacey Blvd Widen/Reconst Magna Carta To 13th	-	-	-	\$500,000	-	\$500,000
2062 Lift Station Rehab	-	-	\$50,000	-	-	\$100,000
2062 Portable Pumps 6" / 4"	-	\$65,000	-	-	-	\$65,000
2050 Vacuum Truck (Repl 174)	-	\$129,400	-	-	-	\$129,400
Tree Trim/Removal Program	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$375,000
2062 Brown St Main Addition-Hwy 198 To Brown St Basin	-	-	\$250,000	-	-	\$250,000
1750 Public Works Enclosed Warehouse	-	-	\$75,000	-	-	\$75,000
Lacey Widen/Recon/10th-Sierra	\$305,020	\$487,210	\$186,570	-	-	\$978,800
Stonecrest Basin Pump Eq	\$45,930	-	-	-	-	\$45,930
Lift Sta 23 & 56 Panel Repl	\$48,000	-	-	-	-	\$48,000
Incr Flow Cap/People Ditch	-	\$35,440	-	-	-	\$35,440
Gate Crossing Security/Locks	\$18,450	-	-	-	-	\$18,450
Curb And Gutter Install	\$47,205	\$20,000	\$20,000	\$20,000	\$20,000	\$127,205
Bonneyview Basin/Sand Slough Basin	\$256,200	-	-	-	-	\$256,200
TOTAL STORMWATER CIP	\$1,004,195	\$1,136,050	\$670,570	\$609,000	\$159,000	\$3,578,815

7.4 Storm Drainage Cash Flow Projection

The storm drainage fund cash flow for the five-year period beginning in FY 2023/24 through FY 2027/28 is provided in Table 30. Revenue increases of 5.0% annually over the rate study period are needed to keep up with operating cost inflation and to fund necessary capital projects. It should be noted that this level of increase is applied to the City's total storm drainage fee revenues and does not necessarily reflect the level of increase for individual customers. The impacts to each customer will vary depending on customer class and parcel size.

7.4.1 Storm Drainage Revenues

The City's main revenue source for the storm drainage utility is Storm Drain Fees. Fee revenues are estimated at about \$1.48 million in FY 2023/24, comprising 97% of total storm drain revenues. Other revenues include Interest Income, Late Charges, and Other Miscellaneous Income.

7.4.2 Storm Drainage Operating Expenses

Operating expenses are based on the City's FY 2023/2024 and 2024/2025 Budget. Major expenses include Salaries and Benefits, Administrative Expenses, Supplies and Equipment, Outside Services, and Utilities. Beginning in FY 2025/26, Salaries & Benefits are escalated by 7.0% each year while all other operating expenses are escalated by 3.0% annually. In total, storm drainage operating expenses are estimated to increase by 5.0% each year beginning in FY 2025/26 through FY 2027/28.

7.4.3 Loan to Wastewater Fund

The storm drainage fund will lend the wastewater fund \$1.3 million in FY 2023/24 to eliminate the wastewater fund's operating deficit and assist the wastewater fund with meeting its debt coverage requirements. The wastewater fund will pay back the loan in four equal installments of \$325,000 beginning in FY 2024/25 through FY 2027/28.

7.4.4 Five-Year Summary

Figure 10 graphically shows the storm drainage cash flow projection for the five-year rate study period including both operating and capital expenses. The City will use existing reserves to fund capital projects and the interfund loan to the wastewater fund in FY 2023/24.

Figure 10: Storm Drainage Cash Flows

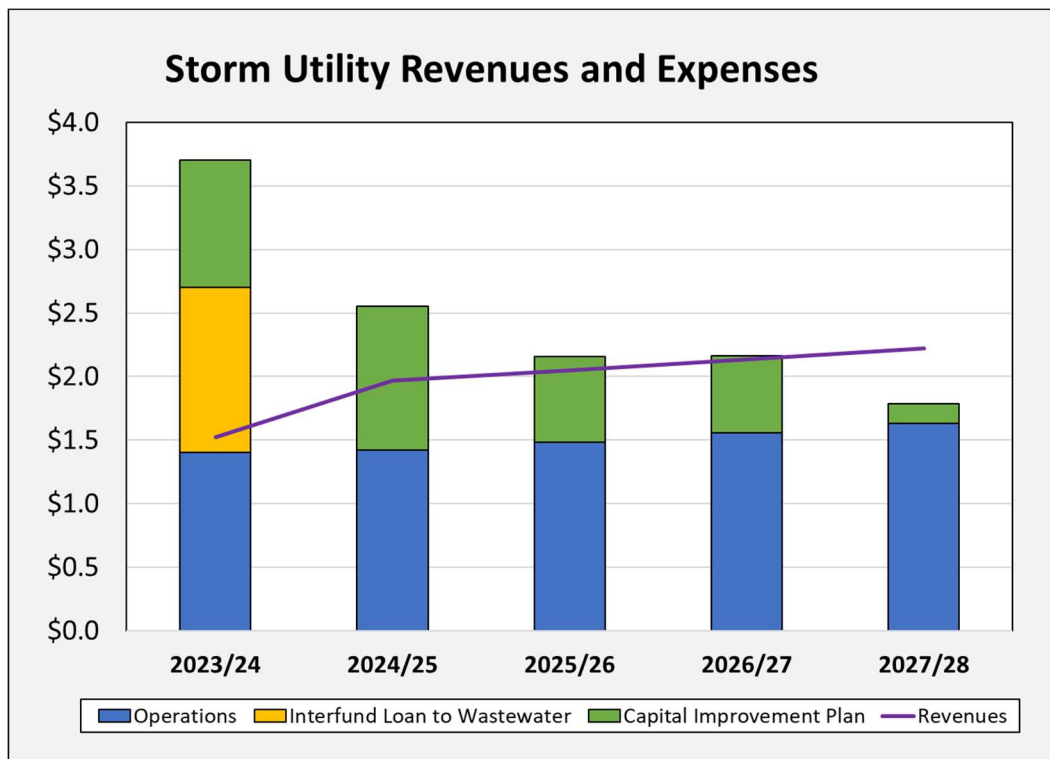


Table 30: Storm Drainage Cash Flow Projection
City of Hanford
Utility Rate Study

	Years 1 -5: Proposition 218				
	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
Rate Revenue Increase	5.0%	5.0%	5.0%	5.0%	5.0%
Rate Increase Effective	Jan 1, 2024	Jul 1, 2024	Jul 1, 2025	Jul 1, 2026	Jul 1, 2027
BEGINNING FUND BALANCE [1]	\$5,721,000	\$3,542,000	\$2,708,000	\$2,374,000	\$2,053,000
REVENUES					
<i>Rate Revenues</i>	1,477,000	1,597,000	1,677,000	1,761,000	1,849,000
<u><i>Non-Rate Revenue</i></u>					
Late Fees	5,000	5,000	5,000	5,000	5,000
Interest Income	43,000	43,000	43,000	43,000	43,000
Bad Debts	<u>1,000</u>	<u>1,000</u>	<u>1,000</u>	<u>1,000</u>	<u>1,000</u>
Subtotal Non-Rate Revenues	49,000	49,000	49,000	49,000	49,000
Transfer from Wastewater to Repay Transfer	0	325,000	325,000	325,000	325,000
Total Revenue	1,526,000	1,971,000	2,051,000	2,135,000	2,223,000
EXPENSES					
<u><i>Operating Expenses</i></u>					
Salaries and Benefits	581,000	600,000	642,000	687,000	735,000
Supplies and Equipment	317,000	316,000	325,000	335,000	345,000
Outside Services	71,000	71,000	73,000	75,000	77,000
City Services Allocation	381,000	381,000	392,000	404,000	416,000
Utilities	<u>51,000</u>	<u>51,000</u>	<u>53,000</u>	<u>55,000</u>	<u>57,000</u>
Subtotal O&M	1,401,000	1,419,000	1,485,000	1,556,000	1,630,000
Net Operating Revenue	125,000	552,000	566,000	579,000	593,000
Transfer to Capital Fund	1,004,000	1,386,000	900,000	900,000	900,000
Transfer to Wastewater for Interfund Loan	1,300,000	0	0	0	0
OPERATIONS ENDING FUND BALANCE	3,542,000	2,708,000	2,374,000	2,053,000	1,746,000
<i>Operating Reserve Fund Target [2]</i>	701,000	710,000	743,000	778,000	815,000
<i>Operating Reserve Target Met?</i>	yes	yes	yes	yes	yes
CAPITAL & RESERVE BEG. FUND BALANCE [3]	(\$730,000)	(\$730,000)	(\$480,000)	(\$251,000)	\$40,000
<u><i>Revenues</i></u>					
Transfer from Operations Fund	1,004,000	1,386,000	900,000	900,000	900,000
<u><i>Capital Expenses</i></u>					
Capital Plan	<u>1,004,000</u>	<u>1,136,000</u>	<u>671,000</u>	<u>609,000</u>	<u>159,000</u>
Subtotal Capital Expenses	1,004,000	1,136,000	671,000	609,000	159,000
Net Capital Revenues	0	250,000	229,000	291,000	741,000
CAPITAL & RESERVE ENDING FUND BALANCE	(\$730,000)	(\$480,000)	(\$251,000)	\$40,000	\$781,000

1 - Estimated cash fund balance of Storm Drainage Operations Fund provided by City staff

2 - Recommended target: Operating Reserve target is 6 months O&M Expenses

3 - Estimated cash fund balances of Storm Drainage Capital and Reserve Fund provided by City staff

SECTION 8: STORM COST ALLOCATION AND RATE DESIGN

Proposition 218 requires that municipalities providing “property-related services” (including storm drain service) set rates and charges that are based on the cost of providing those services. The revenue requirements detailed in the previous section determine the amount of revenue to be recovered from the storm drain rates. In this section, the cost of service allocation develops an equitable means of allocating utility costs among its customers based on their estimated runoff burden to the storm drain system.

The primary storm drainage service provided by the City is the collection, conveyance, and management of stormwater runoff from parcels. All parcels² that contribute runoff into the City’s system, either directly or indirectly, take stormwater service from the City. This service is needed due to property improvements resulting in impervious area such as rooftops, paved driveways and walkways, and landscaping that prevents storm water percolation into the ground. Open space, raw land, and agricultural parcels that are akin to natural conditions (i.e. percolation into the groundwater), are not charged a fee.

Another stormwater service provided by the City is compliance with water quality requirements through the City’s NPDES permit. The City monitors all parcels in the City including parcels that may drain directly to non-City receiving waters. Thus, all parcels are included in the fee structure except street parcels that are considered part of the storm system, open space or agricultural parcels that percolate stormwater, and parcels that full contain their own stormwater runoff.

8.1 Storm Drainage Cost Allocation

The proposed storm drain rate will only be levied on properties that shed water, directly or indirectly, into the City’s storm drain system. Moreover, the amount of use attributed to each parcel is proportionate to the amount of stormwater runoff contributed by the parcel, which is, in turn, proportionate to the amount of impervious surface area on a parcel. According to the California Storm Water Quality Association (CASQA), the most widespread storm water fee structure across the United States is based on the amount of impervious area on a parcel. Impervious surfaces are surfaces that allow little or no storm drainage to permeate into the ground, including rooftops, paved driveways, and walkways.

Measuring impervious area is conducted using aerial photography and geographic information system (GIS). For residential properties, a representative sampling is sufficient to determine an average for a typical single family parcel. Unlike residential parcels, non-residential parcels differ widely in size and characteristics which makes sampling impractical. For a simplified alternative, runoff coefficients can be used to estimate stormwater runoff by land use classification. This concept can be used to estimate the

² Street parcels are considered part of the storm drain system and do not take service

relative load from a single parcel by multiplying the total area of the lot type by the runoff coefficient. The City's 2017 Storm Drainage Master Plan includes runoff coefficients by land use types.

Table 31 includes an estimate of impervious area within the City. Parcels within the City are divided into one of seven land use categories: 1) Single Family Residential, 2) Business, 3) Industrial, 4) Low Density, 5) Multi-Family Residential, 6) Public Agency, and 6) Schools. A runoff coefficient from the 2017 Storm Drainage Master Plan is applied to the acreage of each land use category to estimate the total land area that is impervious.

The Public Agency category refers to buildings and structures owned by governmental agencies and includes City Hall, City offices, libraries, post offices and fire/police stations. The Low Density category is new and is applied to industrially zoned parcels that were either a) entirely farmland, b) occupied by some industrial use but mostly vacant, or c) a single-family home that also contains active farmland. The properties in which parcel size is unknown will be charged a base fee based on customer class. Additionally, the City has identified 68 potential industrial parcels that will be added to the total acreage count once they have been annexed into the City in the future. Parcels that meet any of the following conditions are excluded from Table 31 and are not proposed to be charged storm drain fees:

- 1) Parcels that solely comprise a street or roadway (either publicly or privately owned) and are considered to be part of the Storm Drain conveyance system.
- 2) Parcels comprised of an area which is part of the City's storm drain system.
- 3) Parcels that do not receive service.
- 4) Parcels which detain all runoff on site.

To provide more context to exemption number 1 listed above, the Environmental Protection Agency notes that *"a municipal separate storm sewer means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law)... that discharges into waters of the United States. (ii) Designed or used for collecting or conveying stormwater; (iii) Which is not a combined sewer; and (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2."* (EPA Stormwater Phase II Final Rule Fact Sheet). Therefore, street parcels are considered part of the City's storm drain infrastructure. Street parcels are assumed to collect and convey their own onsite stormwater. Storm drain expenses incurred related to the service of street parcels are deemed to benefit all parcels of the City and these costs are spread among non-street parcels based on the cost allocation described in this section.

Table 31: Estimated of Acreage & Impervious Area
City of Hanford
Utility Rate Study

Service Type		Number of Parcels [1]	% of Total Parcels	Total Acres	Average Parcel Size (acres)	Runoff Coefficient [2]	Total Impervious Area	% of Total Impervious Area
R	Residential	16,041	93.6%	3,047.8	0.19	0.50	1,523.9	57.8%
B	Business	559	3.3%	702.5	1.26	0.90	632.2	24.0%
I	Industrial [3]	66	0.4%	281.9	4.27	0.80	225.5	8.6%
LD	Low Density	31	0.2%	255.5	8.24	0.10	25.5	1.0%
M	Multi-Family	397	2.3%	171.0	0.43	0.60	102.6	3.9%
P	Public Agency	11	0.1%	104.7	9.52	0.90	94.2	3.6%
S	Schools	<u>29</u>	<u>0.2%</u>	<u>220.5</u>	7.60	0.15	<u>33.1</u>	<u>1.3%</u>
Total		17,134	100.0%	4,783.9			2,637.1	100.0%

1 - Only includes storm accounts that have matched APNs

2 - Source: Storm Drainage Master Plan 2017

3 - Includes 50% of matched acreage to be conservative

8.2 Storm Drainage Fee Design

Table 32 allocates the annual revenue requirement from the storm drainage cash flow to each customer class using the percent of total impervious area to calculate the proposed storm drainage fees. Single family residential customers will continue to be charged on a “per account” basis, with the monthly fee being lowered from \$5.04 to \$4.57. The most common method of establishing storm drainage rates is to use the average single-family residential parcel size as the basic unit of measure. The single family residential fee is based on an average parcel size of 0.19 acres. All other customers will be charged on a “per acre” basis. Parcel size and impervious area are more indicative of the impact each customer places on the City’s storm drainage system.

For all other non-residential customers, the methodology in which these customers will be charged is based on parcel size, rather than consumption. Therefore, the actual bill impacts to each customer will vary depending on customer class and parcel size.

Table 32: Storm Drainage Fee Calculation
City of Hanford
Utility Rate Study

		FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
Total Revenue Requirement (from Cash Flow) [1]		\$1,520,820	\$1,596,861	\$1,676,704	\$1,760,539	\$1,848,566
Customer Class Allocation	% of Total Impervious Area					
Single Family Residential	57.8%	\$878,830	\$922,771	\$968,910	\$1,017,355	\$1,068,223
Business	24.0%	\$364,606	\$382,837	\$401,979	\$422,078	\$443,181
Industrial	8.6%	\$130,062	\$136,565	\$143,393	\$150,563	\$158,091
Low Density	1.0%	\$14,734	\$15,471	\$16,245	\$17,057	\$17,910
Multi-Family	3.9%	\$59,175	\$62,134	\$65,241	\$68,503	\$71,928
Public Agency	3.6%	\$54,339	\$57,055	\$59,908	\$62,904	\$66,049
<u>Schools</u>	<u>1.3%</u>	<u>\$19,074</u>	<u>\$20,027</u>	<u>\$21,029</u>	<u>\$22,080</u>	<u>\$23,184</u>
Total	100.0%	\$1,520,820	\$1,596,861	\$1,676,704	\$1,760,539	\$1,848,566
Rate Calculation for Single Family Residential						
Total Revenue Requirement		\$878,830	\$922,771	\$968,910	\$1,017,355	\$1,068,223
<u>Total Number of Residential Accounts</u>		<u>16,041</u>	<u>16,041</u>	<u>16,041</u>	<u>16,041</u>	<u>16,041</u>
Monthly Single Family Residential Rate (per account)		\$4.57	\$4.79	\$5.03	\$5.29	\$5.55
Rate Calculation for Business						
Total Revenue Requirement		\$364,606	\$382,837	\$401,979	\$422,078	\$443,181
<u>Total Acres</u>		<u>702.5</u>	<u>702.5</u>	<u>702.5</u>	<u>702.5</u>	<u>702.5</u>
Monthly Storm Drain Rate per Acre		\$43.25	\$45.42	\$47.69	\$50.07	\$52.57
Rate Calculation for Industrial						
Total Revenue Requirement		\$130,062	\$136,565	\$143,393	\$150,563	\$158,091
<u>Total Acres</u>		<u>281.9</u>	<u>281.9</u>	<u>281.9</u>	<u>281.9</u>	<u>281.9</u>
Monthly Storm Drain Rate per Acre		\$38.45	\$40.37	\$42.39	\$44.51	\$46.73
Rate Calculation for Low Density						
Total Revenue Requirement		\$14,734	\$15,471	\$16,245	\$17,057	\$17,910
<u>Total Acres</u>		<u>255.5</u>	<u>255.5</u>	<u>255.5</u>	<u>255.5</u>	<u>255.5</u>
Monthly Storm Drain Rate per Acre		\$4.81	\$5.05	\$5.30	\$5.56	\$5.84
Rate Calculation for Multi-Family						
Total Revenue Requirement		\$59,175	\$62,134	\$65,241	\$68,503	\$71,928
<u>Total Acres</u>		<u>171.0</u>	<u>171.0</u>	<u>171.0</u>	<u>171.0</u>	<u>171.0</u>
Monthly Storm Drain Rate per Acre		\$28.84	\$30.28	\$31.79	\$33.38	\$35.05

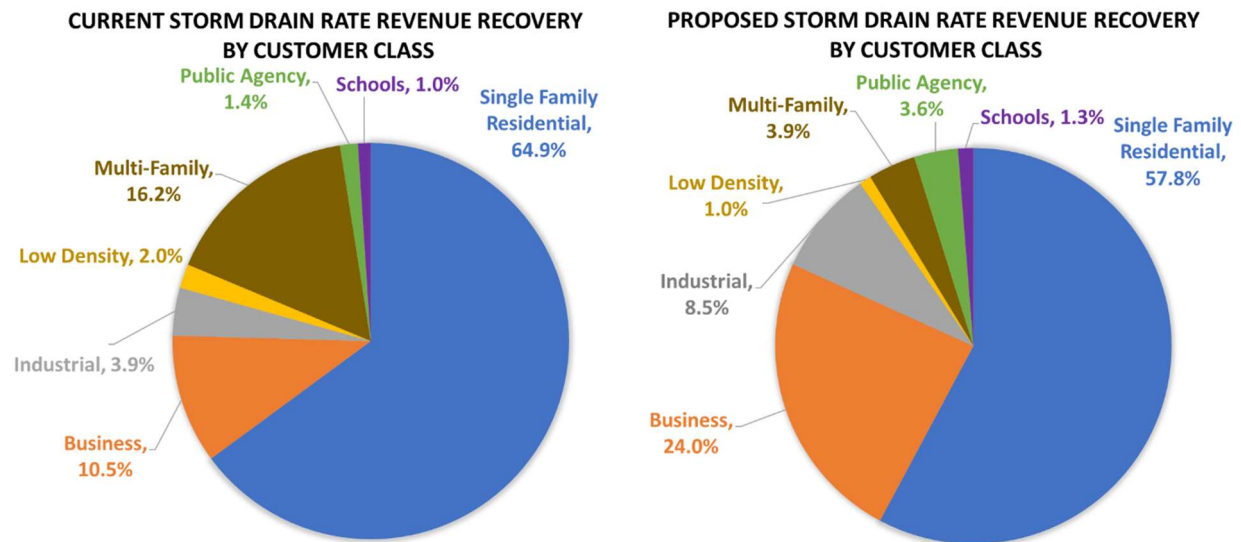
	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28
Rate Calculation for Public Agency					
Total Revenue Requirement	\$54,339	\$57,055	\$59,908	\$62,904	\$66,049
Total Acres	<u>104.7</u>	<u>104.7</u>	<u>104.7</u>	<u>104.7</u>	<u>104.7</u>
Monthly Storm Drain Rate per Acre	\$43.25	\$45.42	\$47.69	\$50.07	\$52.57
Rate Calculation for Schools					
Total Revenue Requirement	\$19,074	\$20,027	\$21,029	\$22,080	\$23,184
Total Acres	<u>220.5</u>	<u>220.5</u>	<u>220.5</u>	<u>220.5</u>	<u>220.5</u>
Monthly Storm Drain Rate per Acre	\$7.21	\$7.57	\$7.95	\$8.35	\$8.76

1 – Assumes 12 months of rate increases

8.3 Cost Allocation Results

Based on the cost allocation, the revenue recovery by customer class has been updated so that each customer class is paying their share of costs per the total percentage of impervious area as shown on Table 31. Figure 11 below compares the current revenue allocation with the proposed allocations based on acreage.

Figure 11: Current vs. Proposed Storm Drainage Revenue Recovery



8.4 Proposed Storm Drainage Rates

The proposed five-year rate plan is shown in Table 33. The February 1, 2024 rates reflect the new cost allocation and rate structure described herein. The following years reflect 5.0% annual increases consistent with the proposed cash flow.

Table 33: Proposed Storm Drainage Fees
City of Hanford
Utility Rate Study

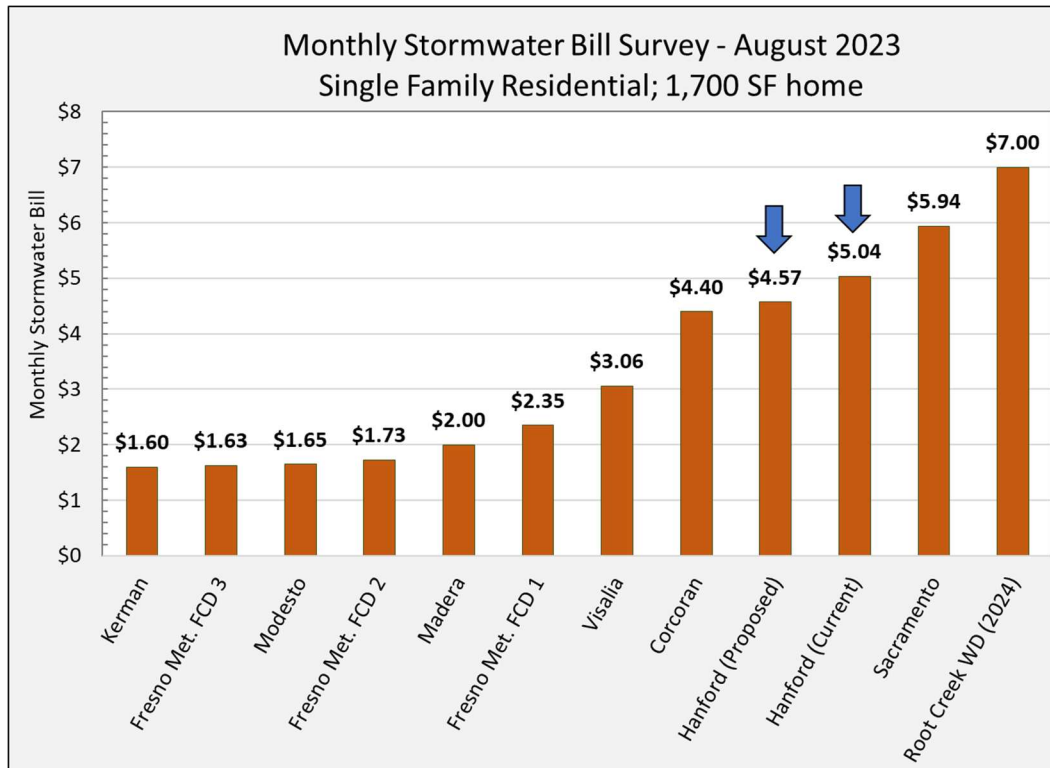
Fiscal Year Effective Date	CURRENT Jul 1, 2011	PROPOSED				
		FY2023/24 Feb 1, 2024	FY2024/25 Jul 1, 2025	FY2025/26 Jul 1, 2026	FY2026/27 Jul 1, 2027	FY2027/28 Jul 1, 2028
Single Family Residential (per account)	\$5.04	\$4.57	\$4.79	\$5.03	\$5.29	\$5.55
All Other Customers (per acre)						
Business		\$43.25	\$45.42	\$47.69	\$50.07	\$52.57
Industrial		\$38.45	\$40.37	\$42.39	\$44.51	\$46.73
Low Density		\$4.81	\$5.05	\$5.30	\$5.56	\$5.84
Multi-Family		\$28.84	\$30.28	\$31.79	\$33.38	\$35.05
Public Agency		\$43.25	\$45.42	\$47.69	\$50.07	\$52.57
Schools		\$7.21	\$7.57	\$7.95	\$8.35	\$8.76
Base Charge (per account) [1]						
Business		\$8.65	\$9.08	\$9.54	\$10.01	\$10.51
Industrial		\$7.69	\$8.07	\$8.48	\$8.90	\$9.35
Low Density		\$0.96	\$1.01	\$1.06	\$1.11	\$1.17
Multi-Family		\$5.77	\$6.06	\$6.36	\$6.68	\$7.01
Public Agency		\$8.65	\$9.08	\$9.54	\$10.01	\$10.51
Schools		\$1.44	\$1.51	\$1.59	\$1.67	\$1.75

1 - Charge for accounts that the City does not have parcel size information for.

8.5 Storm Drainage Survey

Figure 12 provides a bill survey comparing the City's current and proposed storm drain bills for a 1,700 square foot single family home.

Figure 12: Storm Drainage Residential Monthly Bill Survey



8.6 Annual Parcel Database Review

To develop the storm drainage parcel database, L&T matched the City's current storm drainage accounts with parcel size information and assessor parcel numbers (APN) provided by Kings County. The City will need to make adjustments to the parcel database on an annual basis as parcels are developed, undergo a change of use, or when parcel size data becomes available for those without acreage currently available. The following accounts will need to be updated each year:

- **Accounts with No Acreage**

Of the 17,453 storm drainage accounts, L&T was able to match 14,489 with their corresponding acreage and APNs. Accounts without parcel size information will be charged a base storm drainage charge based on customer class. Once parcel size is confirmed, the account can be charged the corresponding per acre rate.

- **Hand-Billed Industrial & School Accounts**

The City currently bills several schools and industrial accounts separately for sewer use, and therefore, L&T did not find an existing account number. The City can either continue to hand bill these customers or add them to the billing system.

- **Potential Industrial Parcels**

The City has identified 68 industrial parcels for a total of 1,318 acres that will likely be annexed into the City in the future. Because it is unknown when they will be annexed, these parcels are not included in the current rate study but can be included in the next rate study once they have established a utility billing account.

- **Low Density Parcels**

The Low Density category is a new storm rate category and is applied to industrially zoned parcels that were either a) entirely farmland, b) occupied by some industrial use but mostly vacant, or c) a single-family home that also contains active farmland. The City has identified 31 Low Density parcels for a total of 511 acres. The majority of these parcels do not have an existing utility account number and will have to be added to the billing system.

- **Site Planning & Impervious Area Reductions**

Certain parcels may have storm water detention and/or retention facilities or perform other best management practices that decrease or eliminate storm water runoff. While every effort has been made to account for these parcels, a parcel owner may present information to substantiate an exemption to the charges. The City will need to establish a process for individual property owners to appeal their storm drain charges on a case-by-case basis and update the parcel database as needed.



City of Hanford
Utility Division
315 N Douty Street
Hanford, CA 93230

NOTICE OF PUBLIC HEARING ON PROPOSED WATER, WASTEWATER, & STORM DRAIN RATE INCREASES

Hearing Date & Time: January 16, 2024 at 7pm

Hearing Location:

Hanford Civic Auditorium

400 N Douty Street

Hanford, CA 93230

Dear Customer or Property Owner,

You are receiving this notice because you are either a utility customer or you own property receiving services of the City of Hanford (City). The City Council will hold a public majority protest hearing on **January 16, 2024, at 7pm** at **400 N Douty Street, Hanford, CA 93230** to consider increases in the water, wastewater, and storm drain rates, effective February 1, 2024. At the hearing, the City Council will review the amount of the proposed rates as well as the methodology used to calculate the rates. If the proposed maximum rates are adopted, the City may collect rates at or below the proposed maximum as needed to meet the City's water, wastewater, and storm drain needs over the next five years.

In compliance with article XIII D of the California Constitution, which was added to the Constitution pursuant to Proposition 218, this notice provides you with information regarding the services provided by the City, the reasons for the changes in the water, sewer, and storm drain service rates, and the methods by which you can protest this rate increase if you so desire.

System Overview

The City provides water, wastewater, and storm drain services to approximately 17,000 accounts including homes, businesses, and industrial facilities. The City's sole water source is groundwater from within the San Joaquin Valley Groundwater Basin which is distributed through a system of wells, pipelines, storage reservoirs, and pumping facilities. The City owns and operates a local wastewater plant to treat and dispose of customer discharge. The storm drainage system removes rainfall from surface streets and disposes of the accumulated stormwater in drainage basins throughout the City. The City also complies with strict government clean water standards regulating the removal of pollutants from stormwater prior to it entering local waterways.

Current Water, Wastewater, & Storm Drain Rates

Water, wastewater, and storm drain rates are billed monthly. The prior water rate study was completed in 2015, and the last water rate increase went into effect over 5 years ago on July 1, 2018. For water service, customers are billed 1) a flat charge according to the size of their meter and 2) a volume rate based on metered water usage.

All customers pay a uniform volume rate that is the same rate per 100 cubic feet (ccf) of water consumed. One hundred cubic feet (ccf) equates to 748 gallons.

The prior wastewater and storm drain rate study was completed in 2009, and the last rate increases went into effect over 12 years ago on July 1, 2011. For wastewater and storm drain service, residential customers are billed a flat charge per account. Commercial customers are billed based on metered water use. Industrial customers are billed based on metered water use and for the amount of pollutants released into the wastewater system. Schools are billed annually based on a flat charge per student (measured using average daily attendance).

Why are rate adjustments needed?

The water, wastewater, and storm drain utilities rely entirely on rate revenues to fund operations. The proposed rates are based on a comprehensive cost of service study to ensure that utility rates pay for increasing operating and maintenance expenses, debt service payments, capital projects, and emergency reserves. Water, wastewater, and storm drain operations are not funded by property tax or any other tax revenue.

The proposed rate increases are needed for the three utilities to maintain balanced budgets and to fund necessary infrastructure improvements. Water rates are proposed to be adjusted to keep up with inflationary cost increases and to fund \$43.7 million in capital projects over the next five years. Major water capital projects include meter replacements, well upgrades, tank repairs, and water supply projects.

In recent years, the wastewater utility has spent down its reserves to fund expenses. Wastewater rate increases are needed to keep up with operating costs, maintain strong debt coverage, and to fund \$7.4 million in capital projects over the next five years. Major wastewater capital projects include funding for the wastewater treatment expansion project, lift station repairs, and rehabilitating miles of sewer pipeline.

The proposed storm drain rate increase reflects needed improvements to the City's aging storm drainage system, including \$3.5 million in capital projects over the next five years. Major storm drainage capital projects include removing trees, basin repairs, and pipeline replacements.

Proposed Rates and Rate Structure Adjustments

The proposed rates are designed to cover the costs of planned capital projects and operating and maintenance expenses and will not result in any profits to the City. Current and proposed water rates are provided in Table 1.

Table 1: Current and Proposed Monthly Water Rates

Fiscal Year	Current Rates [1]	PROPOSED				
		2023/24	2024/25	2025/26	2026/27	2027/28
<i>Effective Date</i>	<i>July 1, 2018</i>	<i>Feb 1, 2024</i>	<i>July 1, 2024</i>	<i>July 1, 2025</i>	<i>July 1, 2026</i>	<i>July 1, 2027</i>
METER CHARGES						
5/8", 3/4", & 1"	\$15.41	\$17.42	\$19.85	\$21.64	\$22.52	\$23.44
1-1/2" & 2"	\$21.88	\$31.89	\$36.34	\$39.62	\$41.23	\$42.91
3" & 4"	\$34.83	\$95.56	\$108.90	\$118.73	\$123.55	\$128.58
6"	\$54.26	\$292.35	\$333.16	\$363.26	\$378.01	\$393.37
8"	\$80.17	\$465.99	\$531.04	\$579.02	\$602.53	\$627.01
CONSUMPTION CHARGES (\$/CCF)						
All Customers	\$1.34	\$1.94	\$2.24	\$2.44	\$2.54	\$2.64

CCF - hundred cubic feet; one CCF = 748 gallons

1 - Current rates shown are for Inside City customers. Inside & Outside City customers are proposed to be billed the same rates going forward. Current meter charges shown are the sum of the service connection charge and the meter fee.

The proposed water rates also include a schedule of drought rates, which would only be implemented during a water shortage emergency. The City does not currently have a schedule of drought rates. Under drought conditions, the meter charges would remain the same, but the volume rate would increase according to the level of water cutback, as shown in Table 2. A detailed analysis of drought rates is provided in the City's Water, Wastewater, and Stormwater Utility Rate Study 2023.

Table 2: Proposed Drought Rates

Fiscal Year	Current Rates	PROPOSED [1]				
		2023/24	2024/25	2025/26	2026/27	2027/28
<i>Effective Date</i>	<i>July 1, 2018</i>	<i>Feb 1, 2024</i>	<i>July 1, 2024</i>	<i>July 1, 2025</i>	<i>July 1, 2026</i>	<i>July 1, 2027</i>
DROUGHT CONSUMPTION CHARGES (\$/CCF) [1]						
10% Water Cutback	-	\$2.10	\$2.42	\$2.64	\$2.75	\$2.86
20% Water Cutback	-	\$2.30	\$2.65	\$2.89	\$3.01	\$3.13
35% Water Cutback	-	\$2.72	\$3.13	\$3.41	\$3.55	\$3.69
50% Water Cutback	-	\$3.38	\$3.89	\$4.24	\$4.41	\$4.59

CCF - hundred cubic feet; one CCF = 748 gallons

1 - Only to be implemented temporarily during water shortage emergencies.

Current and proposed wastewater rates are provided in Table 3. It should be noted that under the current billing system, wastewater and storm drain fees are combined into a single charge. 22% of the combined charge is for storm drain services. For a single family customer, the current combined fee is \$22.90 per month which is made up of \$17.86 for wastewater service and \$5.04 for storm service. In the future, wastewater and storm rates are broken out into separate charges. Wastewater rates are determined based on customer service costs as well as the amount of wastewater flow and pollutants flushed into the sewer system.

Table 3: Current and Proposed Monthly Wastewater Rates

Customer Class	Current Rates	PROPOSED				
		2023/24	2024/25	2025/26	2026/27	2027/28
<i>Effective Date</i>	<i>July 1, 2011</i>	<i>Feb 1, 2024</i>	<i>July 1, 2024</i>	<i>July 1, 2025</i>	<i>July 1, 2026</i>	<i>July 1, 2027</i>
RESIDENTIAL (Per dwelling unit)						
Single Family	\$17.86	\$24.67	\$27.63	\$30.95	\$32.50	\$34.13
Multi-Family/Duplex	\$16.93	\$18.51	\$20.73	\$23.22	\$24.38	\$25.60
NON-RESIDENTIAL						
Metered Water (Per CCF)						
Group A: Domestic	\$1.54	\$3.08	\$3.45	\$3.86	\$4.05	\$4.25
Group B: Low Strength	\$1.44	\$2.81	\$3.15	\$3.53	\$3.71	\$3.90
Group C: Medium Strength	\$2.15	\$3.95	\$4.42	\$4.95	\$5.20	\$5.46
Group D: High Strength	\$2.88	\$5.34	\$5.98	\$6.70	\$7.04	\$7.39
Schools (per student ADA) [1]	\$0.51	\$0.74	\$0.83	\$0.93	\$0.98	\$1.03
Septage (per 1,000 gallons)	\$26.19	\$35.03	\$39.23	\$43.94	\$46.14	\$48.45
Industrial						
Flow (per mg)	\$1,561.56	\$2,497.17	\$2,796.83	\$3,132.45	\$3,289.07	\$3,453.52
BOD (per lb)	\$0.173	\$0.557	\$0.623	\$0.698	\$0.733	\$0.770
SS (per lb)	\$0.167	\$0.558	\$0.625	\$0.700	\$0.735	\$0.772

No storm drain fees are included in this table.

CCF - hundred cubic feet; one CCF = 748 gallons

1 - ADA - average daily attendance

Non-residential Sewer Customer Groups are defined as:

Group A: Mobile home parks, motels, public buildings, hospitals, nursing homes, churches, fraternal lodges, service stations and automotive centers

Group B: Car washes, laundromats, retail, commercial and professional establishments

Group C: Mixed use commercial centers including food services with single water service

Group D: Restaurants, supermarkets, grocery stores, mortuaries

Current and proposed storm drain rates are provided in Table 4. The proposed storm drain rates are based on land use type and parcel size as these parameters more closely reflect how customers generate stormwater runoff and take service from the City's storm drain system. Single family residential customers are proposed to be billed a fixed fee based on the average parcel size while all other customer types will be charged an individual rate based on their parcel's acreage. Parcels with indeterminate acreage will be billed a base charge according to their customer class. It should be noted that street parcels contain culverts, drains, and other stormwater facilities and are thus considered part of the storm drain system and are not billed for service.

Table 4: Current and Proposed Monthly Storm Drain Rates

	Current Rates	PROPOSED				
		2023/24	2024/25	2025/26	2026/27	2027/28
<i>Effective Date</i>	<i>July 1, 2011</i>	<i>Feb 1, 2024</i>	<i>July 1, 2024</i>	<i>July 1, 2025</i>	<i>July 1, 2026</i>	<i>July 1, 2027</i>
SINGLE FAMILY RESIDENTIAL (per account)	\$5.04	\$4.57	\$4.79	\$5.03	\$5.29	\$5.55
ALL OTHER CUSTOMERS (per acre)						
Business	<i>varies</i>	\$43.25	\$45.42	\$47.69	\$50.07	\$52.57
Industrial		\$38.45	\$40.37	\$42.39	\$44.51	\$46.73
Low Density		\$4.81	\$5.05	\$5.30	\$5.56	\$5.84
Multi-Family		\$28.84	\$30.28	\$31.79	\$33.38	\$35.05
Public Agency		\$43.25	\$45.42	\$47.69	\$50.07	\$52.57
Schools		\$7.21	\$7.57	\$7.95	\$8.35	\$8.76
BASE CHARGE (per account) [1]						
Business	<i>varies</i>	\$8.65	\$9.08	\$9.54	\$10.01	\$10.51
Industrial		\$7.69	\$8.07	\$8.48	\$8.90	\$9.35
Low Density		\$0.96	\$1.01	\$1.06	\$1.11	\$1.17
Multi-Family		\$5.77	\$6.06	\$6.36	\$6.68	\$7.01
Public Agency		\$8.65	\$9.08	\$9.54	\$10.01	\$10.51
Schools		\$1.44	\$1.51	\$1.59	\$1.67	\$1.75

No wastewater fees are included in this table.

1 - Parcels with indeterminate acreage will be billed a base charge according to their customer class.

Parcels that meet any of the following conditions are not proposed to be charged storm drain fees:

1. Parcels that solely comprise a street or roadway (either publicly or privately owned) and are considered to be part of the Storm Drain conveyance system per Environmental Protection Agency guidelines.
2. Parcels comprised of an area which is part of the City's storm drain system.
3. Parcels that do not receive service.
4. Parcels which detain all runoff on site.

How do I file a protest or participate in the public hearing?

The provisions of Proposition 218 provide that certain types of “Property Related Fees” such as water, sewer, and storm drain rates are subject to a “majority protest” process. Under the majority protest process, any property owner or customer of record may submit a written protest for the proposed increases; provided, however, that only one protest will be counted per identified parcel. If protests are filed on behalf of a majority of the parcels subject to the rates, the City cannot adopt the proposed rates.

Every written protest MUST include ALL of the following to be counted:

1. **A statement against the proposed water rates, wastewater rates, storm drain rates or all three rates;**
2. **Name of the recorded owner or customer of record who is submitting the protest;**
3. **Identification of assessor’s parcel number, street address, or utility account number of the parcel with respect to which the protest is made; and**
4. **Original signature and legibly printed name of the record owner or customer of record who is submitting the protest.**

Written protests may be submitted by:

1. Mail to - Prop 218 Protest, 315 N Douty Street, Hanford, CA 93230; or
2. In-person delivery during normal business hours to 315 N Douty Street, Hanford, CA 93230; or
3. In-person at the Public Hearing, prior to the conclusion of the Public Hearing.

Regardless of how the written protest is submitted, it must be received by the City prior to the conclusion of the public comment portion of the Public Hearing on January 16, 2024. (Postmark dates will not be accepted.) Any protest submitted via e-mail or other electronic means will not be accepted. Please identify on the front of the envelope for any written protest, whether mailed or submitted in person to the City, that the enclosed protest is for the Public Hearing on the Proposed Water, Wastewater, and Storm Drain Rate Increases. Oral comments at the Public Hearing will not qualify as formal protests unless accompanied by a written protest.

The City will hold the Public Hearing on January 16, 2024 at 7pm. The City Council will review the amount of the rates as well as the methodology for calculating the proposed rates. At the conclusion of the hearing, protests will be counted and validated. If protests are filed on behalf of a majority of the parcels subject to the rates before the end of the Public Hearing, the City cannot adopt the proposed rates. If a majority of the parcels do not protest the proposed increase, the City has the authority to adopt the proposed rates. The first rate change, if enacted, could go into effect as early as February 1, 2024.

Additionally, pursuant to California Government Code 53759, there is a 120-day statute of limitations for challenging any new, increased, or extended fee, adopted, modified, or amended after January 1, 2022.

Notice of a Public Hearing on Proposed Water, Wastewater, and Storm Rate Increases

The City of Hanford will hold a Public Hearing on the proposed water, wastewater, and storm drain rates on ***Tuesday, January 16, 2024 at 7:00 p.m.*** in the Hanford Civic Auditorium at 400 N Douty Street, Hanford, CA 93230

RESOLUTION NO. 24-02-R

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF HANFORD UPDATING
WATER RATES

At a regular meeting of the City Council of the City of Hanford duly called and held on the 16th day of January 2024, it was moved by Council Member _____, seconded by Council Member _____, and carried that the following resolution be adopted:

WHEREAS, Chapter 13 of the Hanford Municipal Code provides for the fixing of water, wastewater and stormwater rates by resolution for residential and commercial services; and

WHEREAS, the consulting firm Lechowicz and Tseng Municipal Consultants prepared a comprehensive analysis and written report entitled “Water, Wastewater, and Stormwater Utility Rate Study 2023”, dated November 7, 2023; and

WHEREAS, the City Council conducted a study session reviewing the proposed rates on November 6, 2023; and

WHEREAS, notice of the proposed water, wastewater and stormwater rates was mailed to all property owners and customers in accordance with the requirements of Proposition 218 and Government Code section 53750 et seq; and

WHEREAS, a public hearing to consider the proposed rates and any protests to such rates was held on this date, January 16, 2024, which is more than 45 days after the notices were mailed; and

WHEREAS, written protests to the proposed rates were not presented by a majority of the customers; and

WHEREAS, the proposed rates are required to cover the cost of providing the various services, including but not limited to, providing funds for operations, capital improvements, debt service and vehicle replacement costs; and

WHEREAS, the proposed rates are non-discriminatory and do not exceed the cost of providing services for which the rates are imposed; and

WHEREAS, the City Council deems it in the public interest to adjust the water rates as set forth in the attached Exhibit “A” known as the City of Hanford Water, Wastewater, and Stormwater Utility Rate Study 2023.

WHEREAS, the City Council will look to consider wastewater and stormwater rates in future action.

NOW, THEREFORE, BE IT FURTHER RESOLVED to continue the public hearing for wastewater and stormwater rates until February 6, 2024;

NOW, THEREFORE, BE IT RESOLVED that the rates on Exhibit “A” are approved, effective February 1st, 2024; and thereafter as specified, on July 1, 2024; July 1, 2025; July 1, 2026; and July 1, 2027.

PASSED, ADOPTED AND APPROVED this 16th day of January 2024 by the following vote:

AYES: _____

NOES: _____

ABSTAIN: _____

ABSENT: _____

Travis Paden
MAYOR of the City of Hanford

Attest:

Natalie Corral
City Clerk



AGENDA STAFF REPORT

MEETING DATE: 1/16/2024

AGENDA SECTION: GENERAL BUSINESS

SUBJECT:

Discussion regarding the list of committees and boards that have City Council representation directly appointed by the Council and Appointment of those members as appropriate.

RECOMMENDATION:

Recommendation: That the City Council receive and discuss the list of committee and boards that have City Council representation directly appointed by the Council and approve the Appointments as recommended by a vote of the full Council.

BACKGROUND:

Staff regularly presents the City Council representation list at the December meeting after the council reorganization. The updated list was not complete at that time. The City Clerk updated the list to include only the boards, commissions, and committees that require Council representation and that the Council has appointing authority over and should make assignments as needed.

There are two list included in the staff report for the Council's review. The 2023 Council Representation on Boards, Commissions, Committees list represents the appointments that were made during the Special Meeting held on December 2, 2022, and the other list is an updated list minus the boards and committees listed below. An updated list was created because the Hanford City Council does not have authority to make appointments or assignments for the boards and committees that were removed. Also, staff does not have a recommendation at this time for the vacancy on the Kings Mosquito Abatement District Board. The District Manager, Michael Cavanagh, will provide a candidate recommendation to the City Clerk as soon as possible, and it will be added to a future agenda for the Council's approval.

Boards/Committees	Member/Rep	Appointing Authority
<u>City Selection Committee</u>	Mayor (Meeting dates vary)	Members of the City Selection Committee are by statute the City Mayors of each City within Kings County.
<u>SJV Air Pollution Control Dist. Citizens Advisory Committee</u>	Kalish Morrow	Appointed by the City Selection Committee
<u>Local Agency Formation Commission (LAFCO)</u> (4 th Wednesday of each month 3:30 p.m.)	City Member Primary #1 (Exp. 2025) Sid Palmerin (Corcoran) City Member Primary # 2 (Exp. 2024) Alvaro Preciado (Avenal)	The City Selection Committee

<u>League of California Cities</u> (2 nd Thursday, odd months – Executive Committee) (2 nd Thursday, even months – Division Meeting)	<u>Kings County representation:</u> Patricia Matthews, Lemoore	The board positions are elected via membership election.
<u>Kings County Coordinating Task Force</u> Mayor (As needed)	Travis Paden	The City County Coordinating Committee is assigned to the sitting Mayors of each city.
<u>Kings County Homeless Collaborative</u>	Mark Kairis	The Board of Supervisors
<u>San Joaquin Joint Powers Authority</u>	Diane Sharp Alternate Rep	Kings County Association of Governments TPC

Additionally, two committees were removed and are not listed; the Cross Valley Rail Joint Powers Authority Committee and the San Joaquin Valley Task Force Steering Committee. The Cross Valley Rail Joint Powers Authority Committee is not an active committee and the San Joaquin Valley Task Force Steering Committee does not exist. The San Joaquin Valley Air Pollution District does have Steering Committees, but none that serve Kings County.

Staff recommends that the Council review the new updated list and advise the Mayor of any specific interest in a particular committee. Interest should be expressed regardless of whether a current vacancy exists, or if a Council Member is currently a member of a particular committee and no longer wishes to serve in that capacity, the Council member should notify the Mayor that they are no longer interested.

The mayor will then make a recommendation to the full Council regarding which representatives will serve on the various boards and committees for the 2024 term.

FISCAL IMPACT:

No fiscal impact.

ATTACHMENTS:

1. 2023 COUNCIL REPRESENTATION
2. 2024 COUNCIL REPRESENTATION



2024 COUNCIL REPRESENTATION ON BOARDS,
COMMISSIONS, COMMITTEES

Organization	Primary Appointment	Alternate Appointment
<u>Kings Economic Development Corporation</u> (Last Monday each month – 11:30 am)	Kalish Morrow	Travis Paden
<u>Kings County Association of Governments</u> (4th Wednesday each month – 4:30 pm) Requires Form 700	Kalish Morrow	Travis Paden
<u>Kings County Area Public Transit Agency (KART)</u> (4th Wednesday each month – 1:30 pm) Requires Form 700	Diane Sharp	Travis Paden
<u>Kings County Abandoned Vehicle Authority</u> (Meets as needed/4 th Wednesday each month – 4:30 pm) Requires Form 700	Kalish Morrow	Diane Sharp
<u>Kings Community Action Organization (KCAO)</u> (3rd Wednesday each month - 4:30 pm) Requires Form 700	Lou Martinez	Travis Paden
<u>Kings Waste and Recycling Authority (KWRA)</u> (2nd Wednesday each month - 8:00 am) Requires Form 700	Diane Sharp	Lou Martinez
<u>Mid-Kings River Groundwater Sustainability Agency</u> (2 nd Tuesday of each month – 1:00 pm) (Alternate not required) Requires Form 700	Diane Sharp	Mark Kairis
<u>Kings County Area Disaster Council</u> (Meets 2-3 times a year) Director of Emergency Services, Fire Chief, or the City Manager	Travis Paden	Mark Kairis
<u>Kings County Commission On Aging</u> (3 rd Thursday each month – 2:30 pm) Community Member The City Council's within Kings County shall appoint one person each.	Susie Chavez	
<u>Kings Mosquito Abatement District Board</u> (3 rd Thursday of each month – 9:00 am) One (1) member from each of the three (3) cities (Corcoran, Hanford, and Lemoore) 3 Year Term	VACANT (Exp. 12/31/2026)	



2024 COUNCIL REPRESENTATION ON BOARDS,

COMMISSIONS, COMMITTEES

Organization	Primary Appointment	Alternate Appointment
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AGENDA STAFF REPORT

MEETING DATE: 1/16/2024

AGENDA SECTION: GENERAL BUSINESS

SUBJECT:

Council discussion and selection of Council members to be part of the interview panels that are necessary to fill the upcoming City Commission vacancies.

RECOMMENDATION:

Recommendation: That the City Council discuss the existing vacancies and appoint one (1) Council member, to serve along with the Mayor and the staff liaison to each commission, as the interview panel to fill the current vacancies for each respective City Commissions.

BACKGROUND:

Section 2.20.030 of the City of Hanford Municipal Code states that:

"Members of all commissions shall be appointed by the mayor with the approval of a majority of the members of the city council."

In previous years, vacancies have been filled by a variety of methods including, a recommendation from the Council liaison, interviews by the full council and interviews by a combination of the Mayor and another Council member and staff, but there has never a formal process.

This year, at the direction of the Mayor, staff has been tasked with creating a formal interview process with a separate panel for each Commission that will include the Mayor, one (1) other Council member and the staff liaison for each respective commission.

Those panels will then interview prospective applicants and then bring back recommendations for the full council to consider for appointments to the commissions.

FISCAL IMPACT:

ATTACHMENTS:

None



AGENDA STAFF REPORT

MEETING DATE: 1/16/2024	AGENDA SECTION: GENERAL BUSINESS
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SUBJECT:

Settlement Agreement Darlene Mata v. City of Hanford, Art Brieno

RECOMMENDATION:

Recommendation: It is recommended that the City Council approve the settlement with Darlene Mata and direct staff to take all necessary action to carry out the terms of the settlement.

Recommended Motion: I move to approve the Settlement Agreement and Release of All Claims regarding the lawsuit filed against the City by Darlene Mata and that City staff be authorized and directed to carry out the terms set forth in the Settlement Agreement and Release of All Claims.

BACKGROUND:

Ms. Mata, the City's former Community Development Director, alleged several complaints against former Councilmember Art Brieno, including harassment based on gender, harassment based on actual and/or perceived disability, hostile work environment harassment, invasion of privacy, disclosure of Constitutionally protected privacy interests, improper disclosure of medical information, disclosure of confidential personnel information, retaliation, and false light.

Upon receipt of those complaints, the City engaged an outside investigator who conducted several interviews and found the complaints to be sustained. Following the report findings, Mr. Brieno was censured by the City Council. The censure served as the Council's statement that it did not condone Mr. Brieno's conduct.

Ms. Mata later filed the present suit against the City. The parties engaged in discovery, and subsequently attended mediation. Through mediation, the parties came to an agreement for settlement of this matter. Settlement includes the payment of \$750,000 to Ms. Mata in exchange for dismissal of the action against the City and Mr. Brieno. Prior to filing her lawsuit, Ms. Mata identified her estimated damages at approximately \$1,433,483.83 and initially indicated a willingness to settle for \$1,250,000.

The City is a party to the matter, so acceptance is conditioned on Council approval. However, PRISM, the City's insurer, has already approved the settlement amount and will refund that amount and fees and costs incurred by the City in this matter in excess of the City's \$100,000 self-insured retention (aka deductible).

FISCAL IMPACT:

The City's self-insured retention is \$100,000 and PRISM will pay the portion of the settlement, fees,

and costs in excess of that amount.

ATTACHMENTS:

1. 2024.01.04 Mata General Release (Final)

SETTLEMENT AGREEMENT AND RELEASE OF ALL CLAIMS

This Settlement Agreement and Release of all Claims (hereinafter "Agreement") is made and entered into by Darlene Mata ("Plaintiff"), on the one hand, and City of Hanford ("City") and Art Brieno ("Brieno") (collectively "Defendants") on the other hand.

WHEREAS, on or about March 16, 2022, Plaintiff filed a Complaint for Damages, and a First Amended Complaint on August 15, 2022. Generally, Plaintiff alleged harassment and discrimination based on gender and disability, retaliation, failure to prevent harassment, discrimination and retaliation, and various violations of her privacy (the "Civil Action") in Kings County Superior Court, Case No. 22C-0077;

WHEREAS, Defendants dispute any wrongdoing or unlawful actions and/or liability whatsoever and specifically disclaim any liability on the part of itself/himself or any past or present officer, manager, agent, employee, or representative;

WHEREAS, the Parties now wish to formally and finally document the resolution of this dispute:

NOW, THEREFORE in consideration of the promises set forth below, the Parties agree as follows:

1. **Payment to Plaintiff.** In consideration for the Parties' execution of this Agreement and their full and complete compliance with all covenants and promises herein, City shall pay Plaintiff the total gross settlement amount of Seven Hundred Thousand Dollars and Zero Cents (\$700,000.00) (the "Settlement Payment"). Payment shall be made as follows: Five Hundred Thousand Dollars and Zero Cents (\$500,000.00) made payable to the HPB Client Trust Account, and Two Hundred Thousand Dollars and Zero Cents (\$200,000.00) made payable to Plaintiff. The Settlement Payment will not be taxed by City, and Plaintiff will receive IRS Form 1099 from City reflecting the \$200,000.00 settlement payment.

(a) Plaintiff agrees the payment set forth in Paragraph 1 shall constitute the entire consideration provided to her under this Agreement and, excluding any workers' compensation claims that have been or could be made, she will not seek any further compensation for any other claim, damage, costs or attorneys' fees in connection with the matters encompassed in this Agreement, or in connection with Plaintiff's employment with City and any of the claims asserted, or which could have been asserted, against Defendants in the Civil Action.

(b) The Parties specifically agree the Settlement Payment made to Plaintiff through this Settlement Agreement only compensates Plaintiff for injuries and damages that are wholly separate from and specifically exclude injuries and damages covered through workers' compensation claims. The Parties specifically agree and acknowledge the Settlement Payment

made to Plaintiff through this Settlement Agreement specifically and intentionally does not intend and does not compensate Plaintiff for any benefits or payments she previously received, or will receive from any existing workers' compensation claims. No portion of the Settlement Payment made to Plaintiff by way of this Settlement Agreement shall be deemed to supplant, and does not supplant any benefit received, or to be received, by Plaintiff through workers' compensation. In the event any request or demand is made of Plaintiff to repay some or all the workers' compensation benefit made to Plaintiff, or to be made to Plaintiff, regardless of who is making the request, the Parties agree this will serve as a complete defense to such request or demand. The City agrees to and shall fully defend and indemnify Plaintiff from any such claim so that Plaintiff shall not be required to repay any benefits received or to be received through workers' compensation.

2. **Release.** The Parties, for herself/itself/himself, their executors, beneficiaries, successors, assignees, immediate family members, and any other person or entity who could now or hereafter assert a claim in her/its/his name or on behalf of herself/itself/himself (the "Releasing Party"), hereby releases and forever discharges the the other Party(ies) and their subsidiaries, officers, directors, members, partners, owners, shareholders, employees, former employees, agents, servants, attorneys, insurers, assigns, affiliates, independent contractors, volunteers, predecessors, successors, related legal entities, parent companies and organizations, insurers, and any and all other persons, firms and corporations in which they have an interest (collectively the "Released Parties"), from any and all past, present, or future claims, lawsuits, demands, actions, or causes of actions (collectively "Claims"), which the Releasing Party now has, owns, or holds, or claims to have, own, or hold, or which each at any time heretofore had owned or held, or claimed to have had, owned, or held, against the Released Parties, up to the date of execution of this Agreement. The scope of what the Releasing Party releases in this Agreement includes, but is not limited to, a full general release, excluding workers' compensation claims, of any and all Claims or potential Claims the Releasing Party may have against the Released Parties, for any and all injunctive relief, declaratory relief, physical injury, personal injury, and injury of any and all other kinds, and/or any and all other kinds of alleged damages, or other monetary obligation, or obligation of any other sort, including but not limited to, any and all compensatory damages, emotional distress damages, punitive damages, costs, attorneys' fees, and any and all other kinds of damages that are based in whole or in part on any act or omission occurring before this Agreement becomes effective.

3. **Waiver of Section 1542.** The Parties expressly waives all claims, known or unknown, and expressly waives any rights under California Civil Code section 1542 which provides as follows:

A general release does not extend to claims that the creditor or releasing party does not know or suspect to exist in his or her favor at the time of executing the release and that, if known by him or her, would have materially affected his or her settlement with the debtor or released party.

4. **Confidentiality.** Strict confidentiality is a material term of this Agreement. Accordingly, to the fullest extent allowed by law, the Parties agree as follows:

(a) Defendants shall not disclose any of Plaintiff's alleged or actual medical information or medical records that were produced and/or discovered through the Civil Action.

(b) Nothing in this Agreement prohibits the disclosure of factual and related information regarding alleged sexual assault, sexual harassment, workplace harassment or discrimination based on sex, failure to prevent sex discrimination or harassment in the workplace, or retaliation for reporting sexual harassment or discrimination in the workplace. Nothing in this Agreement shall be read to waive Plaintiff's right to testify in an administrative, legislative, or judicial proceeding concerning alleged criminal conduct or alleged sexual harassment by Defendants or by Defendants' agents or employees, when Plaintiff has been required or requested to attend the proceeding pursuant to court order, subpoena, or written request from an administrative agency or the legislature.

(c) The confidentiality provisions in this Paragraph 4 do not apply to responses required under the California Public Records Act, or disclosures required pursuant to the Ralph M. Brown Act or other otherwise required by law.

5. **Non-Disparagement and Employment Reference.** Defendants agree that it/he shall make no negative statements about Plaintiff, Plaintiff's performance, or conduct to any third person or entity, unless compelled to do so by law. City agrees that if it receives a request for an employment reference from a prospective employer of Plaintiff, City shall only provide the prospective employer with information regarding Plaintiff's dates of employment and job titles. Employee-directed inquiries under this Paragraph shall be made only to Mario Cifuentez at (559) 585-2516.

6. **No Admission of Liability.** The Parties acknowledge this Agreement is a compromise of all disputed claims and that nothing in this Agreement constitutes or will be treated by any Party as an admission of liability or wrongdoing. This Agreement shall be binding upon, inure to the benefit of, and be enforceable by, the Parties and their heirs, beneficiaries, administrators, representatives, executors, successors and assignees.

7. **Age Discrimination in Employment Act and Older Worker's Benefit Protection Act Release.** Plaintiff understands and agrees that included among the Released Claims are all claims or rights Plaintiff may have as of the date Plaintiff signs this Agreement under the Age Discrimination in Employment Act ("ADEA"), and Plaintiff further understands and agrees that she:

(a) has reviewed all aspects of this Agreement;

(b) has carefully read and fully understands all the provision of this Agreement;

(c) understands that in agreeing to this document, she is releasing Defendants from any and all claims she may have against Defendants and its/his successors, assigns, agents, attorneys, and insurance carriers;

(d) knowingly and voluntarily agrees to all the terms set forth in this Agreement;

(e) was advised and hereby is advised in writing to consider the terms of this Agreement and consult with attorneys of Plaintiff's choice prior to executing this Agreement;

(f) has up to twenty-one (21) days within which to consider this Agreement before executing it;

(g) has a full seven (7) days following the execution of this Agreement to revoke the Agreement, and has been and hereby is advised in writing that this Agreement shall not become effective or enforceable until the revocation period has expired;

(h) acknowledges that she is receiving consideration from Defendants to which she is otherwise not entitled; and,

(i) understands that rights or claims under the Age Discrimination in Employment Act of 1967 (29 U.S.C. § 621, *et seq.*) that may arise after the date of this Agreement is executed are not waived.

The calendar day on which Counsel for City is in possession of both of the following shall be the Effective Date of this Agreement, unless Plaintiff revokes this Agreement prior to that date: (1) Plaintiff's executed copy of this Agreement; and, (2) Plaintiff's executed ADEA waiver attached hereto as Exhibit "A." This Agreement shall not become effective, and Defendants shall have no obligation to perform under this Agreement, if Plaintiff revokes the Agreement pursuant to Paragraph 7(g) of this Agreement.

8. **Right to Engage in Protected Activity.** Nothing in this Agreement, including but not limited to the acknowledgments, release of claims, proprietary information, confidentiality, cooperation, and non-disparagement provisions, limits or affects Plaintiff's right to challenge the validity of this Agreement, prevents Plaintiff from filing a charge or complaint with or from participating in an investigation or proceeding conducted by the Equal Employment Opportunity Commission, Public Employment Relations Board, National Labor Relations Board, the Securities and Exchange Commission, or any other any federal, state or local agency charged with the enforcement of any laws, including providing documents or any other information, or limits Plaintiff from exercising rights under Section 7 of the National Labor Relations Act to engage in protected, concerted activity with other employees, although by signing this Agreement, Plaintiff is waiving rights to individual relief (including backpay, front pay, reinstatement or other legal or equitable relief) in any charge, complaint, or lawsuit or other proceeding brought by Plaintiff or on Plaintiff's behalf by any third party, except for any right Plaintiff may have to receive a payment from a government agency (and not City) for information provided to the government

agency or otherwise where prohibited.

9. **Dismissal.** Within five (5) business days of receipt of the full Settlement Payment, Plaintiff shall dismiss the Civil Action, with prejudice.

10. **Governing Law.** This Agreement shall be governed and will be construed in accordance with the laws of the State of California. The terms of this Agreement are contractual and not a mere recital.

11. **Entire Agreement and Severability.** This Agreement sets forth the entire agreement and understanding between the Parties on the subject matter hereof, and supersedes all prior discussions and negotiations between them. This Agreement may be amended, modified, or supplemented only by a written instrument executed by the Parties. Should any of the provisions of this Agreement be declared or be determined by any court to be illegal, void, invalid, or unenforceable by a court of competent jurisdiction, the validity of the remaining parts, terms or provisions shall not be affected, and the illegal or invalid part, term or provision shall not be deemed a part of this Agreement. It is the intention of the Parties that if any term or provision of this Agreement is capable of two constructions, one of which would render the term or provision valid, then the term or provision shall have the meaning that renders it valid.

12. **Consultation with Counsel.** Each Party acknowledges representation by counsel and/or the reasonable opportunity to be represented by counsel throughout all negotiations that preceded the execution of this Agreement and that this Agreement is executed with the consent of the Parties, whether or not represented. Each Party acknowledges that no person or entity, including but not limited to a party or agent or attorney of any Party, has made any promise, representation, or warranty, express or implied, not contained in this Agreement to induce the other party to execute this Agreement. Each Party has read this Agreement, accepts and agrees to the provisions it contains, and hereby executes it voluntarily with full understanding of its consequences. It is agreed that for purposes of interpreting the meaning of this Agreement, the Agreement should be deemed to have been jointly and mutually prepared in its entirety by all Parties.

13. **Breach of Agreement.** In the event that any Party breaches any portion of this Agreement, the prevailing Party in an action to enforce this Agreement shall recover from the other Party the prevailing Party's attorneys' fees and costs.

14. **Counterparts.** This Agreement may be executed in separate counterparts, and by facsimile, and each such counterpart shall be deemed an original with the same effect as if all Parties had signed the same document.

15. **C.C.P. § 664.6.** This Agreement shall be binding upon each of the Parties hereto and is admissible into evidence to enforce its terms pursuant to Section 664.6 of the California Code of Civil Procedure and any equivalent federal law.

16. **Further Assurances.** The Parties each agree to make, execute, and deliver such other documents, and to undertake such other and further acts as may be reasonably necessary to carry out the intent of this Agreement.

17. **Construction.** Headings are used herein for convenience only and shall have no force or effect in the interpretation or construction of this Agreement. As used in this Agreement, the singular shall include the plural, the masculine, the feminine and neutral genders. The above-stated Recitals are incorporated into this Agreement by this reference.

18. **Waiver/Invalid Provision.** Should any term, clause or provision of this Agreement be found to be waived or invalid, the validity of the remaining terms, clauses and provisions shall not be affected.

19. **Fair Reading.** This Agreement is a result of the negotiations between the Parties, and will not be construed strictly against or in favor of any Party hereto. The Parties intend that this Agreement will be given a fair reading and reasonable construction in accordance with the intentions of the parties and without regard to, or aid of Section 1654 of the California Civil Code.

20. **Authority to Execute Agreement.** Plaintiff represents and warrants that she has the sole right and exclusive authority to execute this Agreement on her behalf, that she understands the nature, quality and effect of signing this Agreement and that she has not sold, assigned, transferred or conveyed or otherwise dispensed of any claim or demand relating to her relationship with City, or any other matter covered by this Agreement. The individuals signing this Agreement on behalf of the Defendants represent and warrants that he/she has authority to do so.

21. **No Further Action.** Plaintiff represents that, except for any workers' compensation claims, she has not filed any pending complaints, claims, lawsuits, or actions against Defendants, or Defendants' officers, board of directors, agents, supervisors, employees, independent contractors, attorneys or representatives, insurers, or related or affiliated companies or entities or the Released Parties with any state, federal, or local agency, court, or any other forum, alleging any claim, liability, or cause of action against Defendants arising out of the relationship between the Parties based upon facts known or unknown which Plaintiff has occurred prior to the date of this Agreement. Plaintiff agrees that she will not do so at any time hereafter, and that if any agency or court assumes or maintains jurisdiction of any complaint, claim, lawsuit, or action against Defendants or any of Defendants' affiliated companies or entities or any of their officers, board or directors, committees, members, agents, supervisors, employees, attorneys, insurers, or representatives or the Released Parties on behalf of Plaintiff, she will direct that agency or court to withdraw from or dismiss the matter with prejudice.

22. **No Inducement.** Plaintiff agrees that if the facts with respect to which this Agreement is executed are found hereafter to be different from the facts now believed by Plaintiff, Plaintiff expressly accepts and assumes the risk of such possible difference in facts, and agrees that this Agreement shall remain effective, notwithstanding such differences. Plaintiff

declares and represents that this Agreement is entered into voluntarily and that no promise, inducement or other agreement not expressly contained herein has been made to induce this Agreement.

23. **Successors.** This Agreement shall inure to the benefit of each Party hereto, its predecessors, successors, subsidiaries, affiliates, representatives, assigns, agents, officers, directors, employees and personal representatives, past, present and future.

24. **Medicare and Social Security.** This settlement is based upon a good faith determination of the Parties to resolve a disputed claim. The Parties have attempted to resolve this matter in compliance with both state and federal law, and it is believed that the settlement terms adequately consider and protect Medicare's interest and do not reflect any attempt to shift responsibility of past or future medical treatment to Medicare in contravention of 42 U.S.C. § 1395y(b).

The Parties acknowledge and understand that any present or future action or decision by the Centers for Medicare & Medicaid Services ("CMS") on this settlement, or Plaintiff's eligibility or entitlement to Medicare or Medicare benefits, will not render this release void or ineffective, or in any way affect the finality of this liability settlement.

Plaintiff represents and warrants that Plaintiff is not currently a Medicare beneficiary nor within thirty (30) months of becoming a Medicare beneficiary; is not 65 years of age or older; is not suffering from end stage renal failure or amyotrophic lateral sclerosis; has not received Social Security benefits for 24 months or longer; and has not applied for Social Security benefits, and/or has not been denied Social Security disability benefits and appealed/appealing the denial.

Because the Plaintiff is not a Medicare beneficiary as of the date of this release, no conditional payments have been made by Medicare.

Further, because Plaintiff is not expected to become a Medicare beneficiary within thirty (30) months from the date of this release, no funds have been allocated for future incident-related medical treatments.

In the event that any of the above information provided by Plaintiff is false or in any way incorrect, Plaintiff shall be liable for any and all actions, causes of actions, penalties, claims, costs, services, compensation or the like resulting from these inaccuracies. Plaintiff acknowledges that Medicare may require Plaintiff to exhaust the entire settlement proceeds on future Medicare-covered incident-related medical expenses should he/she become a Medicare beneficiary within thirty (30) months from the date of this release.

Plaintiff specifically waives any claims for damages against Defendants, including a private cause of action provided in 42 U.S.C. § 1395y(b)(3)(A), should Medicare deny coverage for any reason, including the failure to establish a set aside allocation of the settlement proceeds to protect Medicare's interest. Plaintiff, and in accord with this release, agrees that any and all

applicable medical and other liens related to this claim or lawsuit are to be paid out of the settlement proceeds, and that Medicare conditional payments and any other liens related to this claim or lawsuit are to be paid out of the settlement proceeds, and that Medicare conditional payments and any other lien claims are the sole responsibility of Plaintiff, with nothing further to be sought from Defendants. In the event this information is false or in any way incorrect, Plaintiff expressly warrants and agrees that said Medical conditional payments and liens will be Plaintiff's sole responsibility and will be paid from these settlement proceeds with nothing further to be sought from Defendants.

Plaintiff agrees to fully indemnify, defend and hold Defendants harmless from any and all claims, liens and rights to payment, known or unknown, including but not limited to, penalties, Medicare conditional payments, liens, demands, and actions in law or equity arising out of the 42 U.S.C. § 1395y(b)(3)(A), including but not limited to, failure to satisfy all Medicare conditional payments or other liens and any action by CMS alleging that Medicare's interests were not considered in this settlement.

If any governmental entity, or anyone acting on behalf of any governmental entity, seeks damages including multiple damages from Defendants relating to payment by such governmental entity, or anyone acting on behalf of such governmental entity, relating to Plaintiff's alleged injuries, claims or lawsuit, Plaintiff will defend and indemnify Defendants, and hold Defendants harmless from any and all such damages, claims, Medicare conditional payments, liens, and rights to payment, including any attorneys' fees sought by such entities.

Plaintiff further agrees to waive any and all future actions pertaining only to Medicare against Defendants, including but not limited to, any private cause of action for damages pursuant to 42 U.S.C. § 1395y(b)(3)(A).

25. **Certification of Understanding.** Plaintiff certifies this Agreement has been explained to her by the representative of her choosing or she has voluntarily and knowingly waived such right. Plaintiff also certifies that she understands and has voluntarily agreed to all the terms of this Agreement.

(Plaintiff's initials: _____).

SIGNATURES APPEAR ON FOLLOWING PAGE

IN WITNESS THEREOF, the Parties have executed this Agreement by their signatures below.

Darlene Mata, Plaintiff

By: _____
Darlene Mata

Dated: _____

City of Hanford, Defendant

By: _____

Its: _____

Dated: _____

Art Brieno, Defendant

By: _____
Art Brieno

Dated: _____

EXHIBIT "A"

WAIVER OF RIGHTS OR CLAIMS UNDER THE
AGE DISCRIMINATION IN EMPLOYMENT ACT OF 1967

Darlene Mata (hereinafter referred to as "Plaintiff") knowingly and voluntarily signed the Settlement Agreement and Release of All Claims (hereinafter referred to as "Agreement") on January __, 2024. Plaintiff agrees and acknowledges that she has met with her attorney and understands that by signing this Agreement she is waiving all rights, claims, or causes of action she may have under the Age Discrimination In Employment Act of 1967 (29 U.S.C. § 621, *et seq.*) against the Parties signatory to this Agreement.

Plaintiff agrees and acknowledges that she has had a full seven (7) days following the execution of the Agreement to revoke the Agreement and that she has been advised in writing that this Agreement would not become effective or enforceable until the revocation period expires on January __, 2024.

Plaintiff hereby acknowledges that the seven (7) day revocation period expired as of January __, 2024, and she is hereby knowingly and voluntarily waiving her right to revoke this Agreement.

Date: January __, 2024

Darlene Mata

Council Future Agenda Items				
Originated Date	Item	Originator	Staff Lead	Date Estimate
8/15/2023	Municipal Code Amendments to modify the chapter related to murals and consider and adopt a policy to approve murals at the administrative level.	Council Direction	Jason Waters	2/6/2024
12/5/2023	Presentation regarding the Operation and Programs for the Longfield Community Center.	Council Consensus	Brad Albert	2/6/2024
12/5/2023	Appointment of members to the City's Revenue Measure Committee	Council Consensus	Various Staff	Special meeting in Late January