



Tuesday, March 28, 2023 / 6:30 PM / City Hall / 405 East El Monte Way, Dinuba

District 1 Rachel Nerio- Guerrero Vice Mayor	District 2 Maribel Reynosa Mayor	District 3 Benjamin Prado Council Member	District 4 Kuldip Thusu Council Member	District 5 Linda Launer Council Member
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All attendees are advised that electronic devices should be placed on silent upon entering the Council Chambers.

The City Council will take action on all items listed on the agenda.

1. OPENING CEREMONIES

1.1. Welcome and Call to Order

1.2. Invocation

1.3. Pledge of Allegiance

2. AGENDA CHANGES OR DELETIONS

To better accommodate members of the public or convenience in the order of presentation, items on the agenda may not be presented or acted upon in the order listed. Additions to Agenda may be added only pursuant to California Government Code section 54954.2(b).

3. REQUEST TO ADDRESS COUNCIL

This portion of the meeting is reserved for any person who would like to address the Council on any item that is not on the agenda. Please be advised that State law does not allow the City Council to discuss or take any action on any issue not on the agenda. The City Council may direct staff to follow up on such item(s). Speakers are limited to three (3) minutes. If there is any person wishing to address the City Council at this time please approach the podium and state your name and nature of the request.

4. CONSENT CALENDAR

Matters listed under the Consent Calendar are considered routine and will be enacted by one motion and one vote. There will be no separate discussion of these items. If discussion is desired, a member of the audience or a Council Member may request an item be removed from the Consent Calendar and it will be considered separately.

4.1. SUBJECT

Notice of Completion - College Ave. Streetlights Project (JW)

RECOMMENDATION

Council accept the College Avenue Streetlights Project as complete and authorize the City Engineer to file a Notice of Completion with the Tulare County Recorder's Office.

4.2. SUBJECT

Dinuba Chamber of Commerce "Earth Day" Golf Tournament Sponsorship (DJ)

RECOMMENDATION

Council approve Gold Level sponsorship in the amount of \$1,000 for the Dinuba Chamber of Commerce "Earth Day" Golf Tournament on April 21, 2023.

4.3. SUBJECT

Appointments to the City of Dinuba Planning Commission (MA)

RECOMMENDATION

Council to reappoint Linda Faust (District 3) and Tim Conklin (District 5) to the Dinuba Planning Commission to an additional three-year term from January 1, 2023 to December 31, 2025.

4.4. SUBJECT

Approval of City Council Meeting Minutes (MA)

RECOMMENDATION

Council to review and approve City Council meeting minutes of March 14, 2023 as presented.

4.5. SUBJECT

Resolution No. 2023-18, Authorization to Execute Program Supplement for Construction of the Roadway Segment Safety Improvements Project (IH)

RECOMMENDATION

Council adopt Resolution No. 2023-18 authorizing the City Manager or designee to execute the Program Supplement Agreement and future Program Supplement Agreements with the California Department of Transportation (Caltrans) for the Roadway Segment Safety Improvements Project.

4.6. SUBJECT

Resolution No. 2023-19 Approving a Budget Amendment in the amount of \$1,436,020.29 and Authorization to Purchase a New Fire Ladder Truck (JORW)

RECOMMENDATION

Council to taking the following actions by one motion and one vote:

1. Approve Budget Amendment No. 2023-15 budgeting \$1,436,020.29 in the FY 2022-23 budget for the acquisition of a new fire ladder truck; and,
2. Authorize staff to order the new fire ladder truck through the Houston-Galveston Area Council (HGACBuy) Purchasing Cooperative; and,

3. Authorize staff to execute any related documents and agreements associated with the purchase of the new fire ladder truck.

4.7. SUBJECT

Parks Use Fee Waiver for Blessing of the Bikes and Cars 2023 Event at Rose Ann Vuich Park (SH)

RECOMMENDATION

Council approve the use of Rose Ann Vuich Park to Unity Crew for the "Blessing of the Bikes and Cars" event and waive the park rental fee in the amount of \$440.

5. WARRANT REGISTER

5.1. SUBJECT

Warrant Register March 17 & 24, 2023 (KS)

RECOMMENDATION

Council to review and approve the Warrant Register as presented.

6. PUBLIC HEARING

6.1. SUBJECT

Public Hearing to consider a redesign of the previously-approved Montebella Tentative Subdivision Map (Application 2023-01) on 28.8 acres located on the west side of Englehart Avenue, north of the Saginaw Avenue alignment. (KSch)

RECOMMENDATION

City Council conduct a public hearing and adopt the following:

1. Resolution No. 2023-15 (Attachment "A") approving an amendment to the site's General Plan land use designation.
2. Introduce and conduct the first reading, waive reading in full, of the Ordinance No. 2023-03 (Attachment "B") approving a zone change to adjust existing zoning designations on the site.
3. Resolution No. 2023-16 (Attachment "C") approving an amendment for the design of the Tentative Subdivision Map to increase the number of single family lots from 100 to 123 and revise the size and design of a proposed onsite neighborhood park/temporary stormwater ponding basin.
4. Set April 11, 2023 for the second reading of Ordinance No. 23-##.

6.2. SUBJECT

Public Hearing to consider an application for a Planned Unit Development Tentative Subdivision Map for 27 Single Family Residential lots on a 5.5-acre site south of Kamm Avenue. (KSch)

RECOMMENDATION

City Council conduct a public hearing and adopt the following:

1. Resolution No. 2023-17 (Attachment "A") approving a Vesting Tentative Subdivision Map to create 27 single family residential lots and adoption a Categorical Exemption as the environmental finding for the project.

7. DEPARTMENT REPORTS

7.1. SUBJECT

Approval of Education and Training Affiliation Agreement between the City of Dinuba and Valley Regional Occupational Program (VROP) and Adoption of Resolution No. 2023-14 Approving a Budget Amendment to Fund the Fire Training Facility in FY 2022-23 (JORW)

RECOMMENDATION

Council to take the following actions by one motion and one vote:

1. Approve the Education and Training Affiliation Agreement between the City of Dinuba and Valley Regional Occupational Program and authorizing the City Manager or designee to execute the agreement; and,
2. Adopt Resolution No. 2023-14 approving budget amendment No. 2023-14 allocating \$400,000 from the Ambulance Fund for the project in the FY 2022-23 budget.

8. MAYOR/COUNCIL REPORTS

9. CITY MANAGER COMMUNICATIONS

10. CITY STAFF COMMUNICATIONS

11. ADJOURNMENT

This agenda was posted at least 72 hours prior to the regular meeting per GC Section 54954.2(a). A Citizens' Packet regarding this meeting is available at the City Clerk's Office located at City Hall, 405 East El Monte Way, Dinuba CA 93618.

In compliance with the Americans with Disabilities Act, if special assistance is needed to participate in the meeting, please contact the City Clerk's Office at 559-591-5900. Please provide at least 48 hours notification prior to the meeting to allow staff to make reasonable arrangements. (28 CFR 35.102-35.104 ADA Title II)

559.591.5900 / FAX 559.591.5902 . e-mail address: info@dinuba.ca.gov. www.dinuba.org



City Council Staff Report

Department: ENGINEER/PLANNING

March 28, 2023

To: Mayor and City Council

From: Jason Watts, City Engineer

Subject: Notice of Completion - College Ave. Streetlights Project (JW)

RECOMMENDATION

Council accept the College Avenue Streetlights Project as complete and authorize the City Engineer to file a Notice of Completion with the Tulare County Recorder's Office.

EXECUTIVE SUMMARY

St. Francis Electric, LLC completed the College Avenue Streetlights Project on March 20, 2023. The project costs with one change order totaled \$192,578.07. This project was 100% funded by the Federal Highway Administration. The project consisted of the installation of four streetlights near existing crosswalks at the intersections of College Avenue and M St., College Avenue and Golden Way, College Avenue and San Joaquin Valley Railroad (SJVRR) Crossing, and College Avenue and Uruapan Way. Staff is requesting that the Council accept the project as complete and authorize the City Engineer to file the Notice of Completion with the Tulare County Recorder's Office.

OUTSTANDING ISSUES

None.

DISCUSSION

The City of Dinuba approved the installation of four streetlights near existing crosswalks along College Avenue in order to improve pedestrian and vehicular visibility around the railroad crossing.

The College Avenue Streetlights Project was awarded to St. Francis Electric, LLC on February 8, 2022. The project experienced delays due to PG&E staff not being able

to install their facilities in a timely manner. The total project costs were \$192,578.07, which included one change order in the amount of \$7,578.07.

The only change order on the project was for a change of material on the electrical enclosure from galvanized steel to stainless steel. City Staff has noticed issues with the longevity of galvanized steel enclosures and elected to change the enclosure to stainless steel to lower maintenance costs for the life of the enclosure.

St. Francis Electric did an outstanding job installing the streetlights. Staff was very pleased with their work, professionalism, and responsiveness during construction. The contractor completed the work on March 20, 2023. A picture of the completed work is shown as Attachment 'B'.

The Public Works Inspector conducted final inspections on the project and determined that the work was completed in compliance with all approved plans and specifications. The final step is for the city to accept the project as complete and file a Notice of Completion with the Tulare County Recorder's Office. Pursuant to industry standards, the city withheld a 5% contract retention on all invoices received. The retention amount will be released after the Notice of Completion (NOC) is recorded. A copy of the NOC is enclosed as Attachment 'A'.

FISCAL IMPACT

The project totaling \$192,578.07 was fully funded by the Federal Highway Administration.

PUBLIC HEARING

None.

ATTACHMENTS:

- A. Notice of Completion
- B. Picture of Work Completion

RECORDING REQUESTED
AND RETURN TO:

CITY OF DINUBA
PUBLIC WORKS DEPARTMENT
405 E. EL MONTE WAY
DINUBA, CA 93618

No Fee per Government Code 6103

NOTICE OF COMPLETION

NOTICE IS HERE BY GIVEN:

1. That the City of Dinuba, a Municipal Corporation, whose address is 405 E. El Monte Way, Dinuba, California, is the owner of the real property, public works or structure hereinafter described.
2. That on the 20th of March 2023, a work of improvements on real property hereinafter described was completed pursuant to a Contract to which Chapter 5 of Part I of Division 5, of the Public Contract Code applies.
3. That the name of the Contractor who performed said work of improvements pursuant to said Contract with the City of Dinuba is St. Francis Electric, LLC. The surety is Everest National Insurance Company, a New York insurance company, 461 5th Avenue, 4th Floor, New York, NY,.
4. That the real property or public works or structure is described as follows:

**City of Dinuba
College Avenue and SJVRR Crossing Streetlight Improvements Project
Federal Project No. STPLR-7500(264)**

The project involved the installation of 4 streetlights.

5. That the Nature of the owner's interest or estate is: In Fee

Dated: _____, 2023

CITY OF DINUBA
A Municipal Corporation

By _____
Jason Watts, PE Dinuba City Engineer

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA)
) SS
COUNTY OF TULARE)

Subscribed and sworn to (or affirmed) before me this _____ day of _____, 2023, by Jason Watts, City Engineer of the City of Dinuba, a Municipal Corporation, proved to me on the basis of satisfactory evidence to be the person who appeared before me.

Notary Public in and for the County of Tulare,
State of California





City Council Staff Report

Department: CITY MANAGER'S OFFICE

March 28, 2023

To: Mayor and City Council

From: Daniel James, Assistant City Manager

Subject: Dinuba Chamber of Commerce "Earth Day" Golf Tournament Sponsorship (DJ)

RECOMMENDATION

Council approve Gold Level sponsorship in the amount of \$1,000 for the Dinuba Chamber of Commerce "Earth Day" Golf Tournament on April 21, 2023.

EXECUTIVE SUMMARY

The Dinuba Chamber of Commerce holds an annual golf tournament at Dinuba Ridge Creek Golf Course as one of its fundraisers. The City of Dinuba supports the annual Chamber of Commerce golf tournament and hereby requests that the City Council approve a Corporate Champion Sponsorship in the amount of \$1,000.

OUTSTANDING ISSUES

None.

DISCUSSION

The Chamber of Commerce will host the 14th annual golf tournament at Ridge Creek Golf Course. The 2022 tournament is scheduled to be held on Friday, April 21, 2023.

The Chamber of Commerce works to promote local businesses and community events. The Chamber actively promotes partnerships between businesses, local government and the community working toward a prosperous and thriving community. Proceeds from the golf tournament help fund the Chamber's efforts to further these activities.

The City participates annually toward the annual Chamber of Commerce Golf Tournament and has participated at various sponsorship levels, as well as with City teams.

This year there are six (6) sponsorship levels as listed below. Attachment 'A' details further each sponsorship level. Staff recommends that the Council approve a \$1,000 Silver level sponsorship for the annual Dinuba Chamber of Commerce golf tournament.

- Title Sponsor - \$2,500
- Clubhouse Sponsor - \$1,500
- Corporate Champion Sponsor - \$1,000
- Cart Sponsor - \$750
- Game Sponsor - \$500
- Hole Sponsor - \$150

The City participates in other golf tournaments for similar organizations and local non-profits. Staff recommends that the Council approve a \$1000 Corporate Champion sponsorship for the annual Dinuba Chamber of Commerce "Earth Day" Golf Tournament.

FISCAL IMPACT

The City's FY 2023-2023 Community Grants / Miscellaneous Fund was budgeted at \$10,000 and currently there remains a balance of \$6,850 for requests such as this.

PUBLIC HEARING

None required.

ATTACHMENTS:

A. Dinuba Chamber of Commerce Golf Tournament

DINUBA CHAMBER OF COMMERCE

FRIDAY
April 21st
2023

DINUBA CHAMBER

EARTH DAY GOLF TOURNAMENT

REGISTER BY EMAILING

Heathe@DinubaChamber.com

OR BY MAIL AT

210 N L Street Dinuba, CA 93618

OR AT WWW.DINUBACHAMBER.COM

\$480
Team

TEAM OF FOUR OR \$125 PER PLAYER
\$20 off each player if registered
before April 1st
Includes Post-event BBQ & Swag Bag

9am Shotgun Start

1ST PLACE
\$500

2ND PLACE
\$200

3RD PLACE
\$100

Ridge Creek Golf Club Dinuba



City Council Staff Report

Department: CITY CLERK

March 28, 2023

To: Mayor and City Council

From: Maria Alaniz, City Clerk/Human Resources Director

Subject: Appointments to the City of Dinuba Planning Commission (MA)

RECOMMENDATION

Council to reappoint Linda Faust (District 3) and Tim Conklin (District 5) to the Dinuba Planning Commission to an additional three-year term from January 1, 2023 to December 31, 2025.

EXECUTIVE SUMMARY

Commissions Faust and Conklin submitted a request for reappointment to the Dinuba Planning Commission. If the Council elects to reappoint the commissioners, each will serve a term of three (3) years from January 1, 2023 to December 31, 2025.

OUTSTANDING ISSUES

None.

DISCUSSION

The Planning Commission (PC) was established to advise the City Council on planning development. The Dinuba PC is comprised of five (5) members and is considered "quasi-judicial".

Commissions Linda Faust (District 3) and Tim Conklin (District 5) have submitted a request for reappointment to serve an additional three (3) year term on the Planning Commission (Attachments 'A' and 'B' respectively). Their current terms will end December 31, 2025. Staff requests that the Council consider appointing Faust and Conklin to the Dinuba Planning Commission for three-year terms respectively beginning January 1, 2023 to December 31, 2025.

FISCAL IMPACT

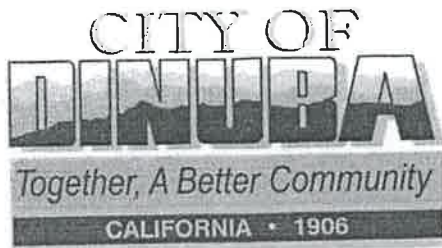
None.

PUBLIC HEARING

None required.

ATTACHMENTS:

- A. Linda Faust Request for Reappointment
- B. Tim Conklin Request for Reappointment



CITY OF DINUBA
COMMISSION/STANDING COMMITTEE
APPLICATION

New ☐
Re-appointment ☒

Planning Commission 3
Name of Commission District
Name LINDA FAUST

Mailing/_____
Residence_____
Address 1421 E Millard Wy Dinuba

Residence Phone 559-908-1051 Work Phone _____

Email ljf4ljf4@outlook.com Facsimile _____

Resident of Dinuba for 50 plus years Dinuba Registered Voter: Yes ☒ No _____

Do you possess a valid California Driver's License? Yes ☒ No _____

Have you been convicted of a felony within the past five years? Yes _____ No ☒
If yes, please explain: _____

Are you related to a City of Dinuba Employee? no If yes, how? _____

Training, Experience and/or Education:

SCHOOL	MAJOR	GRADUATION DATE & DEGREE
<u>Reedley College</u>	<u>BUSINESS</u>	<u>AS</u>

Additional Pertinent Skills, Experience or Interests: 41 YEARS IN CUSTOMER
SERVICE FOR LARGE UTILITY

Community activities in which you are involved: Relay for Life
Dinuba Presbyterian Church Alta District Cemetery Board

Current or prior service on a City Board, Committee or Commission: _____
CURRENTLY SERVING ON PLANNING COMMISSION

Describe any qualifications, experience, and education, as well as any technical or professional background you may have relative to the duties of this position: With A degree in

business focused on customer service and many training
sessions emphasizing the customer, this back ground
has provided a valuable foundation.

What are your goals in serving on this Commission? To be a positive influence
in shaping policies, rules and regulations

Employment Information:

Present Occupation: Retired

Name of Firm: PG&E

Address: 705 P-st FRESNO

Phone: _____

Rules of law and ethics prohibit members from participating in and voting on matters in which they have a direct or indirect conflict of interest including a financial interest. Are you aware of any potential conflicts of interest which may develop from your occupation or financial holdings in relation to your responsibilities as a member of the Commission to which you seek appointment? (If yes, please explain in detail any potential conflicts.) YES _____ NO ✓

I hereby certify that the information contained on this application and any accompanying documents is true and correct to the best of my knowledge.


Signature of Applicant

3-6-2023
Date

You are invited to attach additional pages, enclose a copy of your resume or submit supplemental information which you feel may assist in the evaluation of your application.



CITY OF DINUBA
COMMISSION/STANDING COMMITTEE
APPLICATION

New ☐
Re-appointment ☒

PLANNING Commission 5
Name of Commission District

Name TIM CONKLIN

Mailing/ 747 E. DAVIS DR.

Residence

Address DINUBA CA. 93618

Cell 559-259-9859 Work Phone 35

Email RAGSTE@AOL.COM Facsimile

Resident of Dinuba for 74 years Dinuba Registered Voter: Yes ☒ No

Do you possess a valid California Driver's License? Yes ☒ No

Have you been convicted of a felony within the past five years? Yes No ☒

If yes, please explain:

Are you related to a City of Dinuba Employee? No If yes, how?

Training, Experience and/or Education:

SCHOOL	MAJOR	GRADUATION DATE & DEGREE

Additional Pertinent Skills, Experience or Interests:

Community activities in which you are involved: DINUBA Lions Club

Current or prior service on a City Board, Committee or Commission: RECREATION +
SENIOR CITIZENS Commission; CHAMBER OF COMMERCE
BOARD; ECONOMIC DEVELOPMENT COMMITTEE; DOWNTOWN
STREETSCAPE.

Describe any qualifications, experience, and education, as well as any technical or professional background you may have relative to the duties of this position: LIFELONG RESIDENT

FORMER BUSINESS OWNER, CHAMBER OF COMMERCE MEMBER,
PRESIDENT PLANNING COMMISSIONER, SERVED ON RECREATION COMMISSION,
E.D.C., DOWNTOWN REDEVELOPMENT AGENCY

What are your goals in serving on this Commission? TO EXPRESS MY INTEREST
IN THE LOGICAL ORDERLY GROWTH AND DEVELOPMENT IN THE CITY
AND DOWNTOWN COMMUNITY

Employment Information:

Present Occupation: REAL ESTATE AGENT, PROPERTY MANAGER, SEMI-RETIRED

Name of Firm: MERLO NEWTON REAL ESTATE — SELF EMPLOYED

Address: 492 NO. ALTA

Phone: _____

Rules of law and ethics prohibit members from participating in and voting on matters in which they have a direct or indirect conflict of interest including a financial interest. Are you aware of any potential conflicts of interest which may develop from your occupation or financial holdings in relation to your responsibilities as a member of the Commission to which you seek appointment? (If yes, please explain in detail any potential conflicts.) YES _____ NO X

I hereby certify that the information contained on this application and any accompanying documents is true and correct to the best of my knowledge.

[Signature]
Signature of Applicant

3-17-23
Date

You are invited to attach additional pages, enclose a copy of your resume or submit supplemental information which you feel may assist in the evaluation of your application.



City Council Staff Report

Department: CITY CLERK

March 28, 2023

To: Mayor and City Council

From: Maria Alaniz, City Clerk/Human Resources Director

Subject: Approval of City Council Meeting Minutes (MA)

RECOMMENDATION

Council to review and approve City Council meeting minutes of March 14, 2023 as presented.

EXECUTIVE SUMMARY

None.

OUTSTANDING ISSUES

None.

DISCUSSION

None.

FISCAL IMPACT

None.

PUBLIC HEARING

None required.

ATTACHMENTS:

City Council Meeting Minutes, March 14, 2023



**March 14, 2023
MINUTES**

COUNCIL MEMBERS PRESENT:

Nero-Guerrero, Reynosa, Launer, Prado, Thusu

COUNCIL MEMBERS ABSENT:

None.

STAFF MEMBERS PRESENT:

Alaniz, Hernandez, Hurtado, Iriarte, James, Montejano, Patlan, Solis, Watts, Yanez

1. OPENING CEREMONIES

1.1. Welcome and Call to Order

Mayor Reynosa called the meeting to order at 6:31 p.m.

1.2. Invocation

The invocation was led by Chaplain Garcia.

1.3. Pledge of Allegiance

The pledge of allegiance was led by Council Member Thusu.

2. AGENDA CHANGES OR DELETIONS

To better accommodate members of the public or convenience in the order of presentation, items on the agenda may not be presented or acted upon in the order listed. Additions to Agenda may be added only pursuant to California Government Code section 54954.2(b).

None.

3. PRESENTATIONS/CEREMONIAL MATTERS

3.1. Mid-Year Update from Airica de Oliveira, Tulare County Economic Development Corporation

Airica de Oliveira and Sam Diaz with Tulare County Economic Development Corporation (TCEDC) expressed their excitement and honor to represent the County of Tulare. De Oliveira stated that the Tulare County Economic Development Corporation is a nonprofit 501c4 and led by twenty-six Board of Directors. The Board's vision is to be the premier location in California to live, learn, work, and play. De Oliveira shared that their key activity is hosting a demographic database on their website. De Oliveira reported the City of Dinuba is a prime example in that they have the largest food manufacture in the county which is Ruiz Foods. De Oliveira shared that she had met with City Manager Patlan and Assistant City Manager James to discuss great opportunities of

upcoming projects and the vision they have for the current fiscal year to locate and expand business in Dinuba. De Oliveira shared information about the leads and their projects.

Council Member Thusu thanked them for doing a great job for County and Dinuba. Thusu asked how many leads have shown interest in Dinuba. De Oliveira advised that Dinuba is always at the forefront of conversations. Thusu inquired on what can be done to attract development. De Oliveira advised that creative incentives are an option to help generate business.

Council thanked de Oliveira and Diaz for the presentation.

4. REQUEST TO ADDRESS COUNCIL

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None.

5. CONSENT CALENDAR

Matters listed under the Consent Calendar are considered routine and will be enacted by one motion and one vote. There will be no separate discussion of these items. If discussion is desired, a member of the audience or a Council Member may request an item be removed from the Consent Calendar and it will be considered separately.

5.1. SUBJECT

Authorization to Execute an Agreement with Tulare County for the Extension of Water Facilities (JW)

RECOMMENDATION

Council to approve the City of Dinuba Water Main Extension Agreement with Tulare County authorizing the City to include the extension of a water main as part of the Alta/Kamm Avenue Roundabout and authorize the City Manager or designee to execute the agreement, and any related documents.

5.2. SUBJECT

Resolution No. 2023-13 Acquisition of Right of Way for the Kamm/Alta Avenue Roundabout (JW)

RECOMMENDATION

Council adopt Resolution No. 2023-13 by one motion for the following action:

1. Accepts the Irrevocable and Perpetual Offer of Dedication for Right-of-Way dedication for Public Street Purposes.

5.3. SUBJECT

Approval of City Council Meeting Minutes (MA)

RECOMMENDATION

Council to review and approve City Council meeting minutes of February 28, 2023 as presented.

5.4. SUBJECT

Co-Sponsorship of the Leadership Class of Northern Tulare County Annual Cinco de Mayo (JB)

RECOMMENDATION

Council to approve co-sponsorship of the Cinco de Mayo event at Rose Ann Vuich Park on May 3-6, 2023, and the parade downtown on May 6, 2023, hosted by the Leadership Class of Northern Tulare County.

A motion was made by Council Member Launer, second by Council Member Thusu, to review and approve the Consent Calendar as presented.

Ayes: Launer, Nerio-Guerrero, Prado , Reynosa, Thusu

6. WARRANT REGISTER

6.1. SUBJECT

Warrant Register for March 3 & 10 2023 (KS)

RECOMMENDATION

Council to review and approve the Warrant Register as presented.

A motion was made by Council Member Thusu, second by Council Member Launer, to review and approve the Warrant Register as presented.

Ayes: Launer, Nerio-Guerrero, Prado , Reynosa, Thusu

7. DEPARTMENT REPORTS

7.1. SUBJECT

Overview of Citywide User Fee Update and Council Discussion (KS)

RECOMMENDATION

Council to receive, review and provide feedback for the Citywide User Fee Update.

Administrative Services Director Solis presented Tony Thrasher, Project Manager with Wildan Financial Services. Solis stated she wanted to present the study before the public hearing to receive feedback from Council. Thrasher presented an overview of the citywide user fee update. Thrasher stated that the study is meant to determine the full costs incurred that support the various activities for which the City charges user fees. Thrasher advised that city staff provided input and closely evaluated costs. Thrasher shared that these are

operational costs for providing services and do not include taxes or impact fees and the study results determined that the city is currently not charging the full cost of service.

Council Member Launer asked if the city was in line with other communities. Thrasher advised that Dinuba service fees are low. City Manager Patlan advised we have established incentives that subsidize fees.

Solis reported that it is unknown when the last study was performed, there was an ordinance passed in 1992 and rates have been increased by CPI annually. Solis also informed Council that the building and impact fees were re-evaluated in 2019.

Council Member Thusu thanked city staff for the work put into the study. Thusu asked how the study's figures will impact operations in the next 5 or 10 years. Thrasher advised that the use of a CPI is a valid calculation rate to use as an inflator. Thrasher reported that the industry standard for a revenue vs cost study is 3-5 years.

Mayor Reynosa thanked Thrasher and the city staff for their work.

7.2. SUBJECT

Local Agency Formation Commission (LAFCO) Board Small City Representative Nomination (MA)

RECOMMENDATION

Council to recommend a representative to the Local Agency Formation Commission (LAFC) City Selection Committee as a "small city" representative on the LAFCO Board.

City Clerk/Human Resources Director Alaniz presented to the Council the need to nominate a representative to serve on the Local Agency Formation Commission (LAFCO) City Selection Committee as a "small city" representative for the term ending May 2027.

Mayor Reynosa was selected to serve on the board.

A motion was made by Council Member Thusu, second by Council Member Launer, to nominate a representative to serve on the Local Agency Formation Commission (LAFC) City Selection Committee as a "small city" representative.

Ayes: Launer, Nerio-Guerrero, Prado , Reynosa, Thusu

7.3. SUBJECT

First Annual Dinuba BBQ Fest (SH)

RECOMMENDATION

Council to consider adopting registration and event fees and allowing craft breweries for the first annual Dinuba BBQ Fest at Rose Ann Vuich Park on August 4th and August 5th.

Parks and Community Services Director Hurtado presented details on the first annual BBQ Fest that is scheduled for August 4th and 5th at Rose Ann Vuich Park. Hurtado shared that this is the first event with Kansas City BBQ in this area and anticipates 20-30 participants for the first year. Hurtado shared that the BBQ competition will be judged by Kansas City BBQ judges. Hurtado stated she is seeking approval from the City Council to permit beer tasting and to set registration and sponsorship fees for this new event.

Mayor Reynosa asked if there would be a beer garden. Hurtado advised, that for now, the city is only selling a passport for beer tasting that includes a tasting glass but is open to working with a nonprofit to run a beer garden with conditions in place.

Council Member Thusu asked what the event will cost to execute. Hurtado did not have a cost at this time. City Manager Patlan advised that advertising will most likely be the highest cost.

Council expressed its approval of the event and believes it is a good opportunity to market Dinuba.

A motion was made by Council Member Launer, second by Council Member Prado , to adopt registration and event fees and allow craft breweries for the first annual Dinuba BBQ Fest at Rose Ann Vuich Park on August 4th and August 5th.

Ayes: Launer, Nerio-Guerrero, Prado , Reynosa, Thusu

8. MAYOR/COUNCIL REPORTS

Council Member Prado reported attending the Parks and Recreation basketball finals. Prado asked for prayers for students and family of a former student of Dinuba Unified School District who passed away on Sunday.

Vice Mayor Nerio-Guerrero advised she attended several scheduled meetings, including the Council of Cities General Meeting, the in-person Ethics training, and Friday's Goal Setting.

Council Member Launer reported attending the TCAG training which went over funding and budgeting. Launer thanked Fire Chief Webster for giving her a ride-along tour of the flooded areas. Launer reported that the City's Goal Setting was informative.

Council Member Thusu thanked Public Works, Police and Parks and Recreation staff for their hard work during the storms. Thusu reported that he will attend a morning meeting in Bakersfield on the 17th. Thusu shared that he attended the Women's Club Luncheon today.

Mayor Reynosa reported attending the Council of Cities, the city's Goal Setting, and the Women's Club Luncheon. Reynosa thanked Public Works Director Hernandez for taking her around to see the city's problem areas. Reynosa thanked the Public Works staff for assisting Cutler with their flooding. Reynosa asked that an event center be added to the city goals.

9. CITY MANAGER COMMUNICATIONS

City Manager Patlan shared that there will be an Alta Historical Society Luncheon this Thursday in appreciation of City Staff. Patlan thanked the Council for participating in the City's Goal Setting. Patlan thanked Public Works and Parks and Community Service staff for working to ensure flooding is mitigated. Patlan shared that there will be a post-storm staff meeting to identify areas that have flooded and possibly request reimbursement through FEMA.

10. CITY STAFF COMMUNICATIONS

Assistant City Manager James shared that he has received positive feedback from the pictures posted to social media of Public Works assisting with flooding in the Cutler area. James shared that the façade improvement program is in its second round of participants. James advised that there will be a discussion about the two-hour parking downtown, per the council's request.

Administrative Services Director Solis shared that the March delinquent water turn off's have been postponed due to Public Works staff working on storm issues.

City Attorney Yanez shared a reminder to complete the required training and shared that he is available for any ethics questions if needed.

Fire Chief Webster shared that his department has been busy with the storm. Webster shared that an engine was sent to assist Tulare County with flooding and has spent the day at Lake Success. Webster shared that staff has spent the week preparing with Public Works and attending preparedness meetings. Webster shared that the City of Visalia and the City of Porterville have issued a state of emergency and the Dinuba Memorial Building has been identified as a temporary evacuation point for the north county. Webster advised that the Dinuba Family Resource Center has been identified as a drop-off location for supplies. Webster shared that the two Battalion Chiefs interviewed the five candidates for Firefighter/EMT B position and will soon be making conditional offers of employment.

Police Chief Iriarte reported that four Reserve Officers will start employment on April 3rd. Iriarte shared that the department is participating in the Fresno State and Reedley College Job Fairs.

Parks and Community Service Director Hurtado thanked the council for approving the First Annual Dinuba BBQ event fees. Hurtado shared that the baseball draft is happening tonight and that the CDBG senior meals grant award will be announced in March.

City Engineer Watts shared that Englehart will close for the installation of sewer and water for the Vineyard Estates subdivision and that all notices have been made. Watts advised that he is busy working through plans, Road 74 bids are ongoing, the Entertainment Plaza restroom project is out to bid and striping around town is in progress.

Public Works Director Hernandez thanked the council for their support. Hernandez gave a brief overview of grant awards and the improvement projects, including safety improvements to pedestrian crossings and sidewalk enhancements. Hernandez announced the award of the 9 million dollar grant that will be used to support Dinuba's groundwater sustainability and provide funding for three to five new wells.

11. ADJOURNMENT

The meeting was adjourned at 8:04 pm



City Council Staff Report

Department: PUBLIC WORKS

March 28, 2023

To: Mayor and City Council

From: Ismael Hernandez, Public Works Director

By: Elva Patino, Fiscal Analyst II

Subject: Resolution No. 2023-18, Authorization to Execute Program Supplement for Construction of the Roadway Segment Safety Improvements Project (IH)

RECOMMENDATION

Council adopt Resolution No. 2023-18 authorizing the City Manager or designee to execute the Program Supplement Agreement and future Program Supplement Agreements with the California Department of Transportation (Caltrans) for the Roadway Segment Safety Improvements Project.

EXECUTIVE SUMMARY

The City was awarded a Highway Safety Improvement Program (HSIP) grant in the amount of \$1,325,070 for the Roadway Segment Safety Improvements Project. The Project will improve pedestrian safety by narrowing the street width to promote slower vehicle speeds in the subject areas. A Program Supplement Agreement must be executed in order to commence the project's construction phase.

OUTSTANDING ISSUES

None.

DISCUSSION

Resolution No. 2023-18 (Attachment "A") authorizes City staff to execute a Program Supplement Agreement for the construction of the Roadway Segment Safety Improvements Project.

On December 18, 2018, the City was awarded \$1,325,070 in Federal HSIP funds for the Roadway Segment Safety Improvements Project (Attachment "B"). The scope of

work includes installing flush median, edge line and center line striping. In addition, the project will include Class II and Class III bicycle facilities to promote slower vehicle speeds at various locations along Alta Avenue, Crawford Avenue, El Monte Way, Saginaw Avenue, Kamm Avenue, Kern Street, Nebraska Avenue, Englehart Avenue, Surabian Drive and Sequoia Drive.

The City must execute a Program Supplement Agreement (Attachment "C") in order to begin the construction phase of the project. Adoption of Resolution No. 2023-18 will authorize execution of the agreement as required by the Federal HSIP grant.

There is a required match in the amount of \$977,676.25 which will be funded by local funds with an estimated project total of 2,302,756.25.

FISCAL IMPACT

Grant funds available for construction are \$1,325,070. A local match of \$977,676.25 is required and will be funded using local funds.

PUBLIC HEARING

None.

ATTACHMENTS:

- A. Resolution 2023-18
- B. Award Letter
- C. Program Supplement

RESOLUTION NO. 2023-18

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF DINUBA, CALIFORNIA,
AUTHORIZING THE CITY MANAGER OR PUBLIC WORKS DIRECTOR TO
EXECUTE ALL RELATED PROGRAM SUPPLEMENT AGREEMENTS UNDER THE
MASTER AGREEMENT WITH THE STATE OF CALIFORNIA DEPARTMENT OF
TRANSPORTATION FOR PROJECT HSIPL-5143(034) ON BEHALF OF THE CITY**

WHEREAS, the City of Dinuba is eligible to receive Federal and/or State funding for certain transportation projects, through the California Department of Transportation; and

WHEREAS, the Program Supplement Agreement prepared by the California Department of Transportation need to be executed with the State of California Department of Transportation before such funds can be claimed; and

WHEREAS, the City of Dinuba wishes to delegate authorization to the City Manager or the Public Works Director of the City of Dinuba to execute Program Supplement Agreement No. F022 Rev 1 for Project No. HSIPL-5143 (034) for the Roadway Segment Safety Improvements Project, and future Program Supplement Agreements and/or amendments thereto with the California Department of Transportation.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF DINUBA

HEREBY, finds, orders and resolves as follows:

1. The above recitals are true and correct.
2. Program Supplement F022 Rev. 1 by and between the City of Dinuba and the State of California, Department of Transportation is approved.
3. The City Manager or the Public Works Director is hereby authorized to execute the Program Supplement Agreement and future Program Supplement Agreements on behalf of the City.

THEREFORE BE IT RESOLVED that this resolution is adopted and approved by the City Council of the City of Dinuba on this 28th day of March, 2023 by the following vote:

AYES:

NOES:

ABSTAIN:

ABSENT:

ATTEST:

By: _____
MAYOR

CITY CLERK

DEPARTMENT OF TRANSPORTATION**DISTRICT 6**

855 M STREET, SUITE 200

FRESNO, CA 93721-2716

PHONE (559) 445-5417

FAX (559) 445-5425

TTY 711

www.dot.ca.gov

*Making conservation a
California way of life.*

December 18, 2018

Mr. Ismael Hernandez
Interim Public Works Director
City of Dinuba
1088 E. Kamm Avenue
Dinuba, CA 93618

Dear Mr. Hernandez:

Congratulations! The following project you submitted for the Highway Safety Improvement Program (HSIP) Cycle 9 funding has been selected for implementation:

APPLICATION ID: 06-Dinuba-2

To view the complete statewide project listing, please visit the HSIP website at:
http://www.dot.ca.gov/hq/LocalPrograms/HSIP/prev_cycle_results.htm.

In HSIP Cycle 9, 221 projects were selected from a candidate pool of 351 applications. These projects are selected for funding either based on the statewide Benefit Cost Ratio (BCR), or under the various set-asides (i.e. set-asides for Guardrail Upgrade, Horizontal Curve Signing, Pedestrian Crossing Enhancements, and Tribes). The selected HSIP projects, totaling \$182 million, will be programmed in the 2019 Federal Statewide Transportation Improvement Plan (FSTIP).

So what is next?**1. Program new HSIP projects into the FSTIP:**

The Metropolitan Planning Organizations (MPOs) will be informed of the projects being approved for funding, and the MPOs will program these projects in their FSTIP. Please note that it is your agency's responsibility to check with your MPO to confirm when the Federal Highway Administration (FHWA) has approved the programming of your projects. At that time your agency may submit a request for authorization (RFA) to begin reimbursable work on the project in accordance with federal-aid project implementation procedures.

While waiting for the projects to be programmed into the FSTIP, your agency is encouraged to prepare documents required for your first Request for Authorization to Proceed (E-76) with

Mr. Ismael Hernandez
December 18, 2018
Page 2

your first phase of work. For more details regarding project implementation, please review the Local Assistance Procedures Manual (LAPM) at <http://www.dot.ca.gov/hq/LocalPrograms/lam/lapm.htm>.

2. Deliver your HSIP projects and meet the delivery milestones per requirements:

For HSIP Cycle 9 projects, the following delivery milestones are required:

- The milestone of E-76 with Preliminary Engineering is met by September 30, 2019; and
- The milestone of E-76 with Construction is met by December 31, 2021.

Caltrans will track the delivery of these HSIP projects. For delivery reports, consequence of not meeting the delivery requirements, exceptions, time extensions and other details, please visit http://www.dot.ca.gov/hq/LocalPrograms/HSIP/delivery_status.htm.

Important: Use EPSP to deliver the projects

Key: Local agencies can and should use the Expedited Project Selection Procedures (EPSP) to deliver their HSIP projects in advance of the FSTIP program year.

Given that a HSIP safety project is programmed in the FSTIP as lump-sum (i.e. not programmed by phases), it is quite often that the actual year of one or more phases will be different from the program year in the FSTIP. When this occurs, local agencies are allowed and encouraged to request for E-76s in any year, using the Expedited Project Selection Procedures (EPSP). The fact that a local HSIP project is not programmed in a given year should NOT hinder the local agency from requesting for authorization in that year, if the local agency is ready to start the work for a project phase. This understanding is especially important in meeting the delivery requirements of the local HSIP projects. For the specifics of using the EPSP, please visit

http://www.dot.ca.gov/hq/LocalPrograms/HSIP/delivery_status.htm.

If you have questions, please feel free to contact Charles Garabedian at (559) 445-5590 or at charles.garabedian@dot.ca.gov.

Sincerely,



JAMES PERRAULT, Chief
Office of Local Assistance
Transportation Planning Division

c: Tulare CAG

PROGRAM SUPPLEMENT NO. F022 Rev. 1
to
ADMINISTERING AGENCY-STATE AGREEMENT
FOR FEDERAL-AID PROJECTS NO 06-5143F15

Adv. Project ID
0619000219

Date: March 15, 2023
Location: 06-TUL-0-DBA
Project Number: HSIPL-5143(034)
E.A. Number:
Locode: 5143

This Program Supplement hereby adopts and incorporates the Administering Agency-State Agreement for Federal Aid which was entered into between the Administering Agency and the State on 06/03/2016 and is subject to all the terms and conditions thereof. This Program Supplement is executed in accordance with Article I of the aforementioned Master Agreement under authority of Resolution No. _____ approved by the Administering Agency on _____
(See copy attached).

The Administering Agency further stipulates that as a condition to the payment by the State of any funds derived from sources noted below obligated to this PROJECT, the Administering Agency accepts and will comply with the special covenants or remarks set forth on the following pages.

PROJECT LOCATION: Various Locations along Alta Ave, Crawford Ave, El Monte Way, Saginaw Ave, Kamm Ave, Kern Street, Nebraska Ave, Englehart Ave, Surbian Drive, and Sequoia Drive.

TYPE OF WORK: Install flush median, edgeline and centeline, and Class II and Class III bicycle facilities. **LENGTH:** 0.0(MILES)

Estimated Cost	Federal Funds		Matching Funds		
	YS70	\$1,325,070.00	LOCAL		OTHER
	ZS30	\$279,000.00			
\$2,612,756.25			\$1,008,686.25		\$0.00

CITY OF DINUBA

By _____
Title _____
Date _____
Attest _____

STATE OF CALIFORNIA
Department of Transportation

By _____
Chief, Office of Project Implementation
Division of Local Assistance
Date _____

I hereby certify upon my personal knowledge that budgeted funds are available for this encumbrance:

Accounting Officer



Date 03/15/2023

\$1,604,070.00

SPECIAL COVENANTS OR REMARKS

1.
 - A. The ADMINISTERING AGENCY will advertise, award and administer this project in accordance with the current published Local Assistance Procedures Manual.
 - B. ADMINISTERING AGENCY agrees that it will only proceed with work authorized for specific phase(s) with an "Authorization to Proceed" and will not proceed with future phase(s) of this project prior to receiving an "Authorization to Proceed" from the STATE for that phase(s) unless no further State or Federal funds are needed for those future phase(s).
 - C. STATE and ADMINISTERING AGENCY agree that any additional funds which might be made available by future Federal obligations will be encumbered on this PROJECT by use of a STATE-approved "Authorization to Proceed" and Finance Letter. ADMINISTERING AGENCY agrees that Federal funds available for reimbursement will be limited to the amounts obligated by the Federal Highway Administration.
 - D. Award information shall be submitted by the ADMINISTERING AGENCY to the District Local Assistance Engineer within 60 days of project contract award and prior to the submittal of the ADMINISTERING AGENCY'S first invoice for the construction contract.

Failure to do so will cause a delay in the State processing invoices for the construction phase. Attention is directed to Section 15.7 "Award Package" of the Local Assistance Procedures Manual.

E. ADMINISTERING AGENCY agrees, as a minimum, to submit invoices at least once every six months commencing after the funds are encumbered for each phase by the execution of this Project Program Supplement Agreement, or by STATE's approval of an applicable Finance Letter. STATE reserves the right to suspend future authorizations/obligations for Federal aid projects, or encumbrances for State funded projects, as well as to suspend invoice payments for any on-going or future project by ADMINISTERING AGENCY if PROJECT costs have not been invoiced by ADMINISTERING AGENCY for a six-month period.

If no costs have been invoiced for a six-month period, ADMINISTERING AGENCY agrees to submit for each phase a written explanation of the absence of PROJECT activity along with target billing date and target billing amount.

ADMINISTERING AGENCY agrees to submit the final report documents that collectively constitute a "Report of Expenditures" within one hundred eighty (180) days of PROJECT completion. Failure of ADMINISTERING AGENCY to submit a "Final Report of Expenditures" within 180 days of PROJECT completion will result in STATE imposing sanctions upon ADMINISTERING AGENCY in accordance with the current Local Assistance Procedures Manual.

SPECIAL COVENANTS OR REMARKS

F. Administering Agency shall not discriminate on the basis of race, religion, age, disability, color, national origin, or sex in the award and performance of any Federal-assisted contract or in the administration of its DBE Program Implementation Agreement. The Administering Agency shall take all necessary and reasonable steps under 49 CFR Part 26 to ensure nondiscrimination in the award and administration of Federal-assisted contracts. The Administering Agency's DBE Implementation Agreement is incorporated by reference in this Agreement. Implementation of the DBE Implementation Agreement, including but not limited to timely reporting of DBE commitments and utilization, is a legal obligation and failure to carry out its terms shall be treated as a violation of this Agreement. Upon notification to the Administering Agency of its failure to carry out its DBE Implementation Agreement, the State may impose sanctions as provided for under 49 CFR Part 26 and may, in appropriate cases, refer the matter for enforcement under 18 U.S.C. 1001 and/or the Program Fraud Civil Remedies Act of 1986 (31 U.S.C. 3801 et seq.).

G. Any State and Federal funds that may have been encumbered for this project are available for disbursement for limited periods of time. For each fund encumbrance the limited period is from the start of the fiscal year that the specific fund was appropriated within the State Budget Act to the applicable fund Reversion Date shown on the State approved project finance letter. Per Government Code Section 16304, all project funds not liquidated within these periods will revert unless an executed Cooperative Work Agreement extending these dates is requested by the ADMINISTERING AGENCY and approved by the California Department of Finance.

ADMINISTERING AGENCY should ensure that invoices are submitted to the District Local Assistance Engineer at least 75 days prior to the applicable fund Reversion Date to avoid the lapse of applicable funds. Pursuant to a directive from the State Controller's Office and the Department of Finance; in order for payment to be made, the last date the District Local Assistance Engineer can forward an invoice for payment to the Department's Local Programs Accounting Office for reimbursable work for funds that are going to revert at the end of a particular fiscal year is May 15th of the particular fiscal year. Notwithstanding the unliquidated sums of project specific State and Federal funding remaining and available to fund project work, any invoice for reimbursement involving applicable funds that is not received by the Department's Local Programs Accounting Office at least 45 days prior to the applicable fixed fund Reversion Date will not be paid. These unexpended funds will be irrevocably reverted by the Department's Division of Accounting on the applicable fund Reversion Date.

H. As a condition for receiving federal-aid highway funds for the PROJECT, the Administering Agency certifies that NO members of the elected board, council, or other key decision makers are on the Federal Government Exclusion List. Exclusions can be found at www.sam.gov.

SPECIAL COVENANTS OR REMARKS

2.
 - A. ADMINISTERING AGENCY shall conform to all State statutes, regulations and procedures (including those set forth in the Local Assistance Procedures Manual and the Local Assistance Program Guidelines, hereafter collectively referred to as "LOCAL ASSISTANCE PROCEDURES") relating to the federal-aid program, all Title 23 Code of Federal Regulation (CFR) and 2 CFR Part 200 federal requirements, and all applicable federal laws, regulations, and policy and procedural or instructional memoranda, unless otherwise specifically waived as designated in the executed project-specific PROGRAM SUPPLEMENT.
 - B. Invoices shall be formatted in accordance with LOCAL ASSISTANCE PROCEDURES.
 - C. ADMINISTERING AGENCY must have at least one copy of supporting backup documentation for costs incurred and claimed for reimbursement by ADMINISTERING AGENCY. ADMINISTERING AGENCY agrees to submit supporting backup documentation with invoices if requested by State. Acceptable backup documentation includes, but is not limited to, agency's progress payment to the contractors, copies of cancelled checks showing amounts made payable to vendors and contractors, and/or a computerized summary of PROJECT costs.
 - D. Indirect Cost Allocation Plan/Indirect Cost Rate Proposals (ICAP/ICRP), Central Service Cost Allocation Plans and related documentation are to be prepared and provided to STATE (Caltrans Audits & Investigations) for review and approval prior to ADMINISTERING AGENCY seeking reimbursement of indirect costs incurred within each fiscal year being claimed for State and federal reimbursement. ICAPs/ICRPs must be prepared in accordance with the requirements set forth in 2 CFR, Part 200, Chapter 5 of the Local Assistance Procedural Manual, and the ICAP/ICRP approval procedures established by STATE.
 - E. STATE will withhold the greater of either two (2) percent of the total of all federal funds encumbered for each PROGRAM SUPPLEMENT or \$40,000 until ADMINISTERING AGENCY submits the Final Report of Expenditures for each completed PROGRAM SUPPLEMENT PROJECT.
 - F. Payments to ADMINISTERING AGENCY for PROJECT-related travel and subsistence (per diem) expenses of ADMINISTERING AGENCY forces and its contractors and subcontractors claimed for reimbursement or as local match credit shall not exceed rates authorized to be paid rank and file STATE employees under current State Department of Personnel Administration (DPA) rules. If the rates invoiced by ADMINISTERING AGENCY are in excess of DPA rates, ADMINISTERING AGENCY is responsible for the cost difference, and any overpayments inadvertently paid by STATE shall be reimbursed to STATE by ADMINISTERING AGENCY on demand within thirty (30) days of such invoice.

SPECIAL COVENANTS OR REMARKS

G. ADMINISTERING AGENCY agrees to comply with 2 CFR, Part 200, Uniform Administrative Requirements, Cost Principles and Audit Requirement for Federal Awards.

H. ADMINISTERING AGENCY agrees, and will assure that its contractors and subcontractors will be obligated to agree, that Contract Cost Principles and Procedures, 48 CFR, Federal Acquisition Regulations System, Chapter 1, Part 31, et seq., shall be used to determine the allowability of individual PROJECT cost items.

I. Every sub-recipient receiving PROJECT funds under this AGREEMENT shall comply with 2 CFR, Part 200, 23 CFR, 48 CFR Chapter 1, Part 31, Local Assistance Procedures, Public Contract Code (PCC) 10300-10334 (procurement of goods), PCC 10335-10381 (non-A&E services), and other applicable STATE and FEDERAL regulations.

J. Any PROJECT costs for which ADMINISTERING AGENCY has received payment or credit that are determined by subsequent audit to be unallowable under 2 CFR, Part 200, 23 CFR, 48 CFR, Chapter 1, Part 31, and other applicable STATE and FEDERAL regulations, are subject to repayment by ADMINISTERING AGENCY to STATE.

K. STATE reserves the right to conduct technical and financial audits of PROJECT WORK and records and ADMINISTERING AGENCY agrees, and shall require its contractors and subcontractors to agree, to cooperate with STATE by making all appropriate and relevant PROJECT records available for audit and copying as required by the following paragraph:

ADMINISTERING AGENCY, ADMINISTERING AGENCY'S contractors and subcontractors, and STATE shall each maintain and make available for inspection and audit by STATE, the California State Auditor, or any duly authorized representative of STATE or the United States all books, documents, papers, accounting records, and other evidence pertaining to the performance of such contracts, including, but not limited to, the costs of administering those various contracts and ADMINISTERING AGENCY shall furnish copies thereof if requested. All of the above referenced parties shall make such AGREEMENT, PROGRAM SUPPLEMENT, and contract materials available at their respective offices at all reasonable times during the entire PROJECT period and for three (3) years from the date of submission of the final expenditure report by the STATE to the FHWA.

L. ADMINISTERING AGENCY, its contractors and subcontractors shall establish and maintain a financial management system and records that properly accumulate and segregate reasonable, allowable, and allocable incurred PROJECT costs and matching funds by line item for the PROJECT. The financial management system

SPECIAL COVENANTS OR REMARKS

of ADMINISTERING AGENCY, its contractors and all subcontractors shall conform to Generally Accepted Accounting Principles, enable the determination of incurred costs at interim points of completion, and provide support for reimbursement payment vouchers or invoices set to or paid by STATE.

M. ADMINISTERING AGENCY is required to have an audit in accordance with the Single Audit Act of 2 CFR 200 if it expends \$750,000 or more in Federal Funds in a single fiscal year of the Catalogue of Federal Domestic Assistance.

N. ADMINISTERING AGENCY agrees to include all PROGRAM SUPPLEMENTS adopting the terms of this AGREEMENT in the schedule of projects to be examined in ADMINISTERING AGENCY's annual audit and in the schedule of projects to be examined under its single audit prepared in accordance with 2 CFR, Part 200.

O. ADMINISTERING AGENCY shall not award a non-A&E contract over \$5,000, construction contracts over \$10,000, or other contracts over \$25,000 [excluding professional service contracts of the type which are required to be procured in accordance with Government Code sections 4525 (d), (e) and (f)] on the basis of a noncompetitive negotiation for work to be performed under this AGREEMENT without the prior written approval of STATE. Contracts awarded by ADMINISTERING AGENCY, if intended as local match credit, must meet the requirements set forth in this AGREEMENT regarding local match funds.

P. Any subcontract entered into by ADMINISTERING AGENCY as a result of this AGREEMENT shall contain provisions B, C, F, H, I, K, and L under Section 2 of this agreement.

3. Appendix E of the Title VI Assurances (US DOT Order 1050.2A)

During the performance of this agreement, the ADMINISTERING AGENCY, ADMINISTERING AGENCY'S contractors and subcontractor, (hereinafter referred to as the "contractor") agrees to comply with the following nondiscrimination statutes and authorities; including but not limited to:

Pertinent Nondiscrimination Authorities:

A. Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.

B. The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);

C. Federal-Aid Highway Act of 1973, (23 U.S.C. 324 et seq.), (prohibits discrimination on the basis of sex);

D. Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. 794 et seq.), as

SPECIAL COVENANTS OR REMARKS

amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;

E. The Age Discrimination Act of 1975, as amended, (42 U.S.C. 6101 et seq.), (prohibits discrimination on the basis of age);

F. Airport and Airway Improvement Act of 1982, (49 U.S.C. 4 71, Section 4 7123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);

G. The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, subrecipients and contractors, whether such programs or activities are Federally funded or not);

H. Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. 12131-12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;

I. The Federal Aviation Administration's Nondiscrimination statute (49 U.S.C. 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);

J. Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures nondiscrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;

K. Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);

L. Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).



City Council Staff Report

Department: FIRE SERVICES

March 28, 2023

To: Mayor and City Council

From: Jordan Webster, Fire Chief

Subject: Resolution No. 2023-19 Approving a Budget Amendment in the amount of \$1,436,020.29 and Authorization to Purchase a New Fire Ladder Truck (JORW)

RECOMMENDATION

Council to taking the following actions by one motion and one vote:

1. Approve Budget Amendment No. 2023-15 budgeting \$1,436,020.29 in the FY 2022-23 budget for the acquisition of a new fire ladder truck; and,
2. Authorize staff to order the new fire ladder truck through the Houston-Galveston Area Council (HGACBuy) Purchasing Cooperative; and,
3. Authorize staff to execute any related documents and agreements associated with the purchase of the new fire ladder truck.

EXECUTIVE SUMMARY

The Fire Master Plan identified the need to replace the existing 2004 fire ladder truck in 2024. The fire ladder truck is 20 years old and is at the end of its useful life as a frontline fire vehicle. The city was able to secure a \$2.0 million state earmark through Senator Hurtado's office in 2022 for the purchase a new fire ladder truck and associated firefighting equipment. The city has received the funds from the state Office of Emergency Services and is requesting that the City Council approve a budget amendment to include the funds in the current Fiscal Year 2022-23 budget.

OUTSTANDING ISSUES

None.

DISCUSSION

The California Budget Act of 2022 included state appropriations to support State Government for fiscal year 2022/2023. On September 1, 2022, Assembly Bill 179 was passed. In the 2022 State Budget, Senator Hurtado secured \$465.75 million dollars to support investments in public safety, water, education and food programs. The Central Valley received a record \$56 million for public safety, the largest amount ever secured for much needed updates to fire personnel safety equipment, new fire and police stations across the district.

One of the State earmarks that Senator Hurtado was able to secure was \$2.0 million to the City of Dinuba for the purchase of a new 105' Quint (Ladder Truck) and firefighting equipment for the Dinuba Fire Department. This new fire apparatus will replace the department's current 105' Quint that is nearly 20 years old. Having modern and reliable equipment is critical to the safety of our citizens and the safety of our firefighters.

The Houston-Galveston Area Council (HGACBuy) Purchasing Cooperative allows agencies to make the procurement process more efficient by establishing competitively priced contracts for goods and services. All contracts available through HGACBuy have been awarded through a public competitive procurement process that is compliant with State and local guidelines.

Staff is recommending the purchase of a Spartan/Smeal 105' Quint. This fire apparatus meets the requirements needed to maintain our current ISO rating and is similar in specifications to our current fleet. Maintaining consistency in the fleet will allow for efficiency in the operations of our personnel, which is critical during times of emergency. Specifications of the recommended Smeal 105' Quint can be found in Attachment "B". Due to the prolonged build time and benefit of pre-payment, tools and equipment needed to outfit the new 105' Quint will be included in future budget process.

Staff is recommending that the City Council adopt Resolution No. 2023-15 approving a budget amendment in the amount of \$1,436,020.29 as part of the Fiscal Year 2022-23 budget in order to purchase the new fire ladder truck. A copy of the resolution is enclosed herein as Attachment 'A'.

FISCAL IMPACT

The cost for the new 105' Quint is \$1,436,020.29. This cost is comprised of \$1,363,537.00 for the 105' Quint, 100% prepayment discount of \$45,237.00, a performance bond of \$5,221.00 and \$112,499.29 for sales tax. The cost for the 105' Quint will be funded directly from a California Office of Emergency Services Passthrough Grant.

PUBLIC HEARING

None.

ATTACHMENTS:

Attachment "A" Resolution 2023-19 for 2022-23 Budget Amendment
Exhibit 1, Budget Amendment 2023-15
Attachment "B" Smeal 105' Quint Specifications

RESOLUTION 2023-19

**A RESOLUTION OF THE COUNCIL OF THE CITY OF DINUBA
APPROVING AND ADOPTING THE BUDGET AMENDMENT OUTRIGHT PURCHASE OF
A NEW FIRE LADDER TRUCK.**

WHEREAS, the FY 2022/2023 Annual Budget reflects the City of Dinuba's ongoing commitment to providing core services to the community, consistent with the strategic goals established by the City Council; and

WHEREAS, the FY 2022/23 Annual Budget was approved by the City Council on June 28, 2022 by Resolution 2022-44, and any subsequent amendments must be approved by Resolution; and

WHEREAS, a budget amendment is necessary to allow for the outright purchase of a new fire ladder truck, which was not included in the 2022/23 fiscal year;

NOW, THEREFORE, BE IT RESOLVED, the Dinuba City Council hereby resolves that the FY 2022/2023 Annual Budget be amended to provide for the full purchase price of a new ladder truck.

PASSED, APPROVED AND ADOPTED this 28th day of March 2023, at a regular meeting of the Dinuba City Council by the following vote:

AYES:

NOES:

ABSTAIN:

ABSENT:

BY:

ATTEST:

Mayor of the City of Dinuba

City Clerk



REQUEST FOR BUDGET AMENDMENT

Requested by: Jordan Webster

Account Numbers	Fund Name Description	Budget Amounts	
		Increase	Decrease
REVENUES			
322	State Fire Suppression Reimbursement Fund Balance		1,436,020.29
APPROPRIATIONS			
322.60.601-730.1050	Capital Outlay – Trucks and Other Heavy Vehicles	1,436,020	
Reason(s) for Budget Amendment: To purchase the 105' Quint (Fire Ladder Truck) outright at a total cost including tax of \$1,436,020.29. Purchasing the fire apparatus outright triggers a cost savings of \$45,237.00.			
Department Director _____ Signature Date			
Approval Required Budget Amendment: Administrative Services Director _____ Signature Date			
City Manager _____ Date Signature Date			
City Council: ☐ Approved ☐ Resolution # _____ ☐ Denied Date			
BA No. _____ JE No. _____ Date Posted _____ By: _____			

*note please have reviewed and presigned prior to council meeting to give to City Clerk
Form only for items that are amending the 2020/21 adopted budget.



PH: (402)719-1242 Email: Scottfasfire@gmail.com

Address: 1762 S Sycamore Ave, Rialto, CA

Dinuba Fire Department Spartan/Smeal 105' Quint



Scott Beck
Fire Apparatus Solutions
Sales Manager
402-719-1242
Scottfasfire@gmail.com

Gladiator

Fire Apparatus Solutions
2763 S. Vista AVE
Bloomington, CA 92316

Prepared By : TRISH HANSEN

trishfasfire@gmail.com

Prepared For :
DINUBA FIRE DEPARTMENT

Monday, September 19, 2022 11:19:22 AM CDT

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Quotation

			Description	Qty.
VEHICLE				
S	0100-012	MODEL	Gladiator	1
O	8012-002	CUSTOMERS / OEMS	Smeal (02070)[1002812]	1
S	8011-024	MODEL YEAR	Model Year - 2024	1
S	8001-001	COUNTRY OF SERVICE	Country of Service United States Of America	1
S	8017-009	CAB AND CHASSIS LABELING LANGUAGE	<u>Cab and Chassis Labeling Language English w/Innovative Controls Labels</u>	1
O	8006-011	APPARATUS TYPE	Apparatus Type Rear Mount Quint	1
O	8066-018	REAR MOUNT AERIAL DEVICE	<u>Rear Mount Aerial Device Smeal S53RL-105 / 105 RearMount Ladder</u>	1
S	8008-001	VEHICLE TYPE	Vehicle Type Straight Truck	1
S	8008A-000	VEHICLE ANGLE OF APPROACH PACKAGE	<u>Vehicle Angle of Approach NFPA Minimum 8.00 Degrees</u>	1
O	0104-003	AXLE CONFIGURATION	Axle Configuration 6x4 (Rear Tandem Axle Drive Only)	1
O	0101-016	GROSS AXLE WEIGHT RATINGS FRONT	<u>GAWR Front 23000#</u>	1
O	0102-010	GROSS AXLE WEIGHT RATINGS REAR	<u>GAWR Rear 52000#</u>	1
S	8010-201	PUMP PROVISION	<u>Pump Provision Driveline Midship, Pump Mode Prog w/Auto Park Brake "N"</u>	1
O	8009-004	WATER & FOAM TANK CAPACITY	Water & Foam Tank Capacity Up to 750 Gallons	1
CAB				
S	1000-004	CAB STYLE	Cab Style MFD 10" Raised Roof	1
S	1501-002	CAB FRONT FASCIA	Cab Frt Fascia Classic	1
S	1518-025	FRONT GRILLE	Cab Frt Grille Hinged Classic Styled	1
S	1551-002	CAB UNDERCOAT	Cab Undercoat	1
S	1552-002	CAB SIDE DRIP RAIL	Cab Side Drip Rail	1
S	1521-001	CAB PAINT EXTERIOR	Cab Paint Exterior Single Color	1
S	1533-002	CAB PAINT MANUFACTURER	Cab Paint Manufacturer Sikkens	1
S	1522-001	CAB PAINT PRIMARY/LOWER COLOR	Cab Paint Primary/Lower Color No Selection/TBD	1
S	8013-056	CAB PAINT WARRANTY	Cab Paint Warranty (10) Year RFW0710	1
S	1334-036	CAB PAINT INTERIOR	Cab Paint Int Multi-tone Silver Gray	1
S	1005-001	CAB ENTRY DOORS	Cab Entry Doors (4)	1
O	1101-102	CAB ENTRY DOOR TYPE	Cab Entry Door Type Barrier Free w/Pollak Switches	1
S	1322-007	CAB INSULATION	Cab Insulation Nonwoven Polyester Fiber	1
O	1556-009	LH MID EMS COMPARTMENT	<u>LH Mid EMS Compartment 26"H w/Offset to 24"W Chamfered Corner</u>	1
O	1558-007	LH MID EMS COMPARTMENT EXTERIOR ACCESS	<u>LH Mid EMS Cmpt Ext Access 26"H Hng Dr</u>	1
O	1560-002	LH MID EMS COMPARTMENT INTERIOR	<u>LH Mid EMS Cmpt Interior Solid Wall No Access</u>	1
O	1566-002	LH MID EMS COMPARTMENT DOOR	LH Mid EMS Cmpt Door Hardware D-Ring Latch	1

HARDWARE

O	<u>1557-008</u>	RH MID EMS COMPARTMENT	<u>RH Mid EMS Compartment 26"H w/Offset to 24"W Chamfered Corner</u>	1
O	<u>1559-007</u>	RH MID EMS COMPARTMENT EXTERIOR ACCESS	<u>RH Mid EMS Cmpt Ext Access 26"H Hng Dr</u>	1
O	<u>1561-002</u>	RH MID EMS COMPARTMENT INTERIOR	<u>RH Mid EMS Cmpt Interior Solid Wall No Access</u>	1
O	<u>1567-002</u>	RH MID EMS COMPARTMENT DOOR HARDWARE	<u>RH Mid EMS Cmpt Door Hardware D-Ring Latch</u>	1
O	<u>5384-002</u>	MID EMS COMPARTMENT LIGHTING	Mid EMS Compartment Lighting LED	2
O	<u>1535-016</u>	MID EMS COMPARTMENT EXTERIOR FINISH	<u>Mid EMS Cmpt Ext Finish Multi-tone Silver Gray</u>	1
O	<u>1536-018</u>	MID EMS COMPARTMENT INTERIOR FINISH	<u>Mid EMS Cmpt Interior Finish Multi-tone Silver Gray</u>	1
O	<u>1002-011</u>	CAB ROOF TRENCH	Cab Roof Trench 50"W x 13"D	1
S	<u>8004-033</u>	CAB STRUCTURAL WARRANTY	Cab Structural Warranty (10) Year RFW0602	1
S	<u>9001-006</u>	CAB TEST INFORMATION	<u>Cab Test Information Crash Test ECE-R29/SAE J2420/SAE J2422</u>	1

ELECTRICAL POWER DISTRIBUTION

S	<u>5000-018</u>	ELECTRICAL SYSTEM	Elec System 12V DC Multiplex	1
O	<u>5008-072</u>	OEM WIRING	OEM Wir Smeal ECM Park Brake Input	1
O	<u>5006-002</u>	APPARATUS WIRING PROVISION	Apparatus Wiring Provision (8) Circuit Panel	1
S	<u>5005-200</u>	MULTIPLEX DISPLAY	MUX Display Weldon Vista LH Sw Pnl	1
S	<u>5004-002</u>	LOAD MANAGEMENT SYSTEM	Load Management System Multiplex	1
S	<u>5622-003</u>	DATA RECORDING SYSTEM	Data Recording Sys Vehicle Data Weldon MUX	1
O	<u>5031-013</u>	ACCESSORY POWER	<u>Accessory Pwr & Gnd Stud 40A Batt & 15A Ign w/350A Mstr Sw/300A Batt OEM Conn</u>	1
O	<u>5030-037</u>	AUXILIARY ACCESSORY POWER	<u>Aux Acc Pwr 10 Fuse Pnl Bhd Off Seat w/40A Fuse Batt Dir 5' Loop</u>	1
S	<u>5011-001</u>	EXTERIOR ELECTRICAL TERMINAL COATING	<u>Exterior Electrical Terminal Coating Spray On Plasti Dip</u>	1
S	<u>8014-002</u>	ELECTRICAL SYSTEM WARRANTY	Electrical System Warranty (2) Year RFW0202	1

ENGINE

O	<u>1701-172</u>	ENGINE	Engine Diesel 605HP Cummins X15 - EPA 2021	1
S	<u>1329-002</u>	CAB ENGINE TUNNEL	Cab Engine Tunnel Large	1
S	<u>1731-002</u>	DIESEL PARTICULATE FILTER CONTROLS	<u>DPF Ctrl Regeneration Sw & Inhibit Sw</u>	1
S	<u>1718-002</u>	ENGINE PROGRAMMING HIGH IDLE SPEED	<u>Engine Programming High Idle Speed 1250 RPM</u>	1
S	<u>1719-005</u>	ENGINE HIGH IDLE CONTROL	Engine High Idle Ctrl Manual and Automatic w/MUX	1
S	<u>1710-001</u>	ENGINE PROGRAMMING ROAD SPEED GOVERNOR	<u>Engine Programming Road Speed Governor Enabled</u>	1
S	<u>1713-010</u>	AUXILIARY ENGINE BRAKE	Aux Engine Brake Compression Brake w/VG Turbo	1
O	<u>1708-007</u>	AUXILIARY ENGINE BRAKE CONTROL	<u>Aux Engine Brake Ctrl Off/Low/High MUX</u>	1
S	<u>1720-003</u>	ELECTRONIC ENGINE OIL LEVEL INDICATOR	<u>Elec Engine Oil Level Indicator</u>	1

O	1715-004	FLUID FILLS	Fluid Fills Fwd For Large Displacement Cap	1
S	1735-001	ENGINE DRAIN PLUG	Engine Drain Plug	1
S	8002-001	ENGINE WARRANTY	Engine Warranty Cummins (5) Year/100,000 Miles	1
S	1707-116	REMOTE THROTTLE HARNESS	Rmt Throttle Harness Cab Harness Only Shift Interlock	1
S	<u>1721-001</u>	ENGINE PROGRAMMING REMOTE THROTTLE	<u>Engine Program Rmt Throttle Off</u>	1
S	1727-001	ENGINE PROGRAMMING IDLE SPEED	Engine Programming Idle Speed 700 RPM	1

AIR INTAKE

S	<u>2801-010</u>	ENGINE AIR INTAKE	<u>Engine Air Intake Filtration and Restriction w/Replaceable Element Abv Radiator</u>	1
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COOLING

S	2704-016	ENGINE FAN DRIVE	Engine Fan Drive Variable Speed	1
S	2701-021	ENGINE COOLING SYSTEM	Engine Cooling System Serial Flow w/Package Drop-Out Prov	1
S	<u>2711-005</u>	ENGINE COOLING SYSTEM PROTECTION	<u>Engine Cooling System Protection Light Duty Skid Plate Paint Frame Color</u>	1
S	2708-001	ENGINE COOLANT	Engine Coolant Extended Life	1
O	2707-002	ENGINE COOLANT FILTER	Engine Coolant Filter	1
S	<u>2706-003</u>	ELECTRONIC COOLANT LEVEL INDICATOR	<u>Elec Low Coolant Level Indicator</u>	1
S	2705-002	ENGINE PUMP HEAT EXCHANGER	Engine Pump Heat Exchanger	1
S	2709-001	COOLANT HOSES	Coolant Hoses Silicone	1
S	<u>2710-005</u>	ENGINE COOLANT OVERFLOW BOTTLE	<u>Engine Coolant Overflow Expansion Bottle</u>	1

EXHAUST

O	<u>2901-074</u>	ENGINE EXHAUST SYSTEM	<u>Eng Exhaust Sys Under Frm RH Single Module Aftertreatment Inboard Inner Frm Mnt</u>	1
S	2907-003	DIESEL EXHAUST FLUID TANK	Diesel Exhaust Fluid Tank LH 6 Gal Fill Thru Rr Step	1
S	2902-010	ENGINE EXHAUST ACCESSORIES	Engine Exhaust Acc Temp Mitigation	1
S	2906-002	ENGINE EXHAUST WRAP	Engine Exhaust Wrap	1
S	8018-002	EMISSIONS SYSTEM WARRANTY	Emissions System Warranty (5) Year/100,000 Miles RFW0140	1

TRANSMISSION

O	1801-018	TRANSMISSION	Transmission Allison 4000 EVS w/Retarder	1
S	<u>1806-001</u>	TRANSMISSION MODE PROGRAMMING	<u>Transmission Mode Programming 4th Startup/5th Mode</u>	1
S	<u>1811-004</u>	TRANSMISSION FEATURE PROGRAMMING	<u>Transmission Feature Programming Allison Gen 5 & 6-E I/O Package 198/Pumper</u>	1
S	1807-005	TRANSMISSION SHIFT SELECTOR	Transmission GEN 5 & 6-E Shift Sel Key Pad/Push Button	1
S	<u>1815-002</u>	ELECTRONIC TRANSMISSION OIL LEVEL INDICATOR	<u>Elec Transmission Oil Level Indicator</u>	1
O	<u>1812-004</u>	TRANSMISSION RETARDER CONTROL	<u>Trans Ret Ctrl 1/3 Throttle 2/3 Brk On/Off MUX</u>	1
O	<u>1816-004</u>	TRANSMISSION RETARDER CAPACITY LEVEL	<u>Transmission Retarder Capacity Level High</u>	1

S	<u>1814-002</u>	TRANSMISSION PRE-SELECT WITH AUXILIARY BRAKE	<u>2nd Gear Pre-Select</u>	1
S	<u>1808-007</u>	TRANSMISSION COOLING SYSTEM	Transmission Cooling System	1
S	<u>1817-001</u>	TRANSMISSION DRAIN PLUG	Transmission Drain Plug	1
S	<u>8005-001</u>	TRANSMISSION WARRANTY	Transmission Warranty Allison (5) Year	1

POWER TAKE OFF

O	<u>2004-004</u>	LH PTO	LH PTO Cust Installed	1
O	<u>2001-109</u>	LH PTO MODEL	LH PTO Model Chelsea 280-GGFJP-B5XD	1
O	<u>2005-008</u>	PTO LOCATION	PTO Location 8:00/1:00	1
O	<u>2015-030</u>	LH PTO CONTROL	<u>LH PTO Ctrl Rkr Enable "Aerial Master"/Rkr Actv "Aerial PTO"</u>	1

DRIVELINE

O	<u>3001-017</u>	DRIVELINE	<u>Driveline MSI 1810/1710 w/Meritor U-Joints w/Thrust Washers</u>	1
O	<u>3005-074</u>	MIDSHIP PUMP / GEARBOX	Midship Pump Jackshaft w/Smeal Aerial Pump Mount Holes	1
S	<u>3008-085</u>	MIDSHIP PUMP / GEARBOX MODEL	Midship Pump/Gearbox Model Waterous CSUC20 Fwd	1
O	<u>3048-006</u>	MIDSHIP PUMP GEARBOX DROP	Midship Driveline Pump Gearbox Drop Waterous "B"	1
S	<u>3009-007</u>	MIDSHIP PUMP RATIO	Midship Pump Ratio 2.27:1	1
O	<u>3010-1140</u>	MIDSHIP PUMP LOCATION C/L SUCTION TO C/L REAR AXLE	<u>Midship Pump Location C/L Suction to C/L Rear Axle 114.0"</u>	1
O	<u>5013-005</u>	PUMP SHIFT CONTROLS	Pump Shift Ctrl Elec Over Air in Knee Area Pmp Act Up	1
O	<u>3049-003</u>	PUMP SHIFT CONTROL PLUMBING	Pump Shift Control Plumbing Pre-Plumb Elec/Air	1

FUEL SYSTEMS

O	<u>3109-064</u>	FUEL FILTER/WATER SEPARATOR	<u>Fuel Filter/Wtr Separator Racor GreenMAX 6600R w/Lt & Alarm</u>	1
O	<u>3111-002</u>	FUEL LINES	Fuel Lines Wire Braid	1
S	<u>3103-008</u>	ELECTRIC FUEL PRIMER	Electric Fuel Primer Engine Sply Electric Lift Pump	1
O	<u>3112-013</u>	FUEL COOLER	Fuel Cooler Behind Rear Axle Raised	1
O	<u>3101-102</u>	FUEL TANK	Fuel Tank 68 Gallon	1
S	<u>3130-001</u>	FUEL TANK MATERIAL AND FINISH	<u>Fuel Tank Material Steel & Finish Painted Frame Components Color</u>	1
S	<u>3131-001</u>	FUEL TANK STRAP MATERIAL AND FINISH	<u>Fuel Tank Strap Material Steel & Finish Painted Frame Components Color</u>	1
O	<u>3132-011</u>	FUEL TANK MISCELLANEOUS OPTIONS	<u>Fuel Tank Miscellaneous Options - Temporarily Mounted</u>	1
O	<u>3102-016</u>	FUEL TANK FILL PORT	Fuel Tank Fill Port LH Mid/RH Mid/LH Fwd	1
O	<u>3114-006</u>	FUEL TANK SERVICEABILITY PROVISIONS	<u>Fuel Tank Serviceability Prov 12' Fuel Line Extension</u>	1
S	<u>3115-002</u>	FUEL TANK DRAIN PLUG	Fuel Tank Drain Plug Magnetic	1

FRONT AXLE

O	<u>2401-022</u>	FRONT AXLE	Frt Axle Meritor MFS 23000# Beam	1
S	<u>8059-022</u>	FRONT AXLE WARRANTY	Front Axle Warranty Meritor 2024	1
S	<u>2405-001</u>	FRONT WHEEL BEARING	Frt Wheel Bearing Lube Oil	1

LUBRICATION

FRONT SUSPENSION

S	2502-002	FRONT SHOCK ABSORBERS	Frt Shock Absorbers Bilstein	1
O	2501-018	FRONT SUSPENSION	Frt Suspension 11 Leaf 23000#	1

STEERING

S	2601-006	STEERING COLUMN/WHEEL	Steering Column/Wheel Tilt/Telescopic 18" 4 Spoke	1
S	2609-002	ELECTRONIC POWER STEERING FLUID LEVEL INDICATOR	<u>Elec Power Steering Fluid Level Indicator</u>	1
S	2603-011	POWER STEERING PUMP	Power Steering Pump TRW w/Passive Cooler	1
S	2606-009	FRONT AXLE CRAMP ANGLE	Front Axle Cramp Angle 48L/44R Degrees	1
S	2610-005	POWER STEERING GEAR	Power Steering Gear TRW TAS 85 w/Assist	1
S	2608-001	CHASSIS ALIGNMENT	Chassis Alignment	1

REAR AXLE

O	3401-012	REAR AXLE	Rear Axle 54000# Meritor RT-52-185	1
S	3403-001	REAR AXLE DIFFERENTIAL LUBRICATION	<u>Rear Axle Differential Lubrication Oil</u>	1
S	8061-019	REAR AXLE WARRANTY	Rear Axle Warranty Meritor 2024	1
S	3411-001	REAR WHEEL BEARING LUBRICATION	<u>Rear Wheel Bearing Lubrication Oil</u>	1
O	3407-003	REAR AXLE DIFFERENTIAL CONTROL	<u>Rear Axle Differential Ctrl Interaxle Lock</u>	1
O	3408-003	VEHICLE TOP SPEED	Vehicle Top Speed 60 MPH	1
S	3410-001	REAR AXLE EXTERNAL VENT	Rear Axle External Vent OEM Housing Breather	1

REAR SUSPENSION

O	3501-035	REAR SUSPENSION	Rear Susp Hendrickson FireMaax Air 48001-54000#	1
O	3503-003	REAR SHOCK ABSORBERS	Rear Shock Absorbers Suspension Sply	1

TIRES

S	3625-002	TIRE INTERMITTENT SERVICE RATING	<u>Tire Intermittent Service Ratings Acceptable</u>	1
O	3601-063	FRONT TIRE	Frt Tire 425/65R 22.5 Michelin XZY3	2
O	3602-010	REAR TIRE	Rear Tire 12R 22.5 Michelin XZE	8
O	3413-538	REAR AXLE RATIO	Rear Axle Ratio 5.38	1
S	3614-030	TIRE PRESSURE INDICATOR	Tire Pressure Ind Frt & Rr LED	1

WHEELS

O	3701-034	FRONT WHEEL	Frt Wheel Alcoa Dura-Bright 22.5 x 12.25 Alum	2
O	3703-062	REAR WHEEL	Rr Whl Alcoa Dura-Bright 22.5 x 8.25 Alum	8
O	3702-018	WHEEL TRIM	Wheel Trim Hub & Nut Covers SS Shiploose (2) Sets	1

BRAKES

O	<u>3205-015</u>	BRAKE SYSTEM	Brake System ABS/ATC/ESC Tandem Axle MUX Btn	1
S	<u>3206-003</u>	FRONT BRAKES	Frt Brakes Meritor EX225 Disc 17"	1
S	<u>3207-005</u>	REAR BRAKES	Rr Brakes S-Cam Drum 16.5" x 7" Cast Iron Shoe	1
S	<u>3208-001</u>	PARK BRAKE	Prk Brake Rr Wheels Only	1
O	<u>3219-002</u>	SUPPLEMENTAL BRAKE	Supplemental Brake Frt Service Brakes Prk Brk Actv	1
S	<u>3204-029</u>	PARK BRAKE CONTROL	<u>Prk Brake Ctrl LH Tunnel Mnt, Integrated w/Shift Pod, Adjacent To Trans Shifter</u>	1
O	<u>3214-002</u>	REAR BRAKE SLACK ADJUSTERS	Rr Brake Slack Adjusters Haldex	1
S	<u>3202-001</u>	AIR DRYER	Air Dryer Wabco System Saver 1200 Bhd RH Step	1
S	<u>3215-004</u>	FRONT BRAKE CHAMBERS	Frt Brake Chambers MGM Type 24 Long Stroke	1
S	<u>3210-015</u>	REAR BRAKE CHAMBERS	Rr Brake Chambers TSE 30/36 Long Stroke	1

AIR SUPPLY SYSTEMS

S	<u>3320-001</u>	AIR COMPRESSOR	Air Compressor Wabco SS318 18.7 CFM	1
S	<u>3339-004</u>	AIR GOVERNOR	Air Governor Mnt on Air Dryer Bracket	1
O	<u>3303-002</u>	MOISTURE EJECTORS	Moisture Ejectors w/Cable	1
O	<u>3307-001</u>	AIR SUPPLY LINES	Air Sply Lines Nylon w/Compression Fittings	1
S	<u>3338-002</u>	REAR AIR TANK MOUNTING	<u>Rear Air Tank Mnt Any Bhd Rear Axle Perpendicular w/Frame</u>	1

FRAME

O	<u>2103-2280</u>	WHEELBASE	<u>Wheelbase 228.0"</u>	1
O	<u>2106-0640</u>	REAR OVERHANG	<u>Rear Overhang 64.0"</u>	1
S	<u>2101-002</u>	FRAME	Frame Double Channel 35.00" Width	1
O	<u>2111-136</u>	MISC FRAME OPTIONS	<u>Misc Frame Options Smeal Aerials 105RM, 100RM, 125RM, 100MM Layout 4</u>	1
O	<u>2117-004</u>	FRAME CLEAR AREA	Frame Clear Area Inside/Outside Rail 30" Rwd Back of Cab	1
O	<u>2110-101</u>	FRAME PAINT	Frame Paint Powder Coat Black	1
S	<u>8007-036</u>	FRAME ASSEMBLY STRUCTURAL WARRANTY	<u>Frame Assembly Structural Warranty (50) Year RFW0305</u>	1
O	<u>8019-002</u>	FRAME RAIL CORROSION WARRANTY	<u>Frame Rail Corrosion Warranty (3) Year RFW0311</u>	1
S	<u>8022-004</u>	FRAME COMPONENTS CORROSION WARRANTY	<u>Frame Components Corrosion Warranty (3) Year RFW0315</u>	1

BUMPER

O	<u>2201-006</u>	FRONT BUMPER	Frt Bumper Formed Steel Special Approach Style	1
O	<u>2202-024</u>	FRONT BUMPER EXTENSION LENGTH	<u>Frt Bumper Extension Length 12.5" Special Approach Height</u>	1
O	<u>2206-001</u>	FRONT BUMPER PAINT	Frt Bumper Paint Primary/Lower Cab Color	1
O	<u>2208-003</u>	FRONT BUMPER APRON	Frt Bumper Apron For 12.5" Extension	1
O	<u>2237-004</u>	FRONT BUMPER DISCHARGE	Front Bumper Discharge 2.0" LH Frame Mnt Plumbing	1
O	<u>2211-012</u>	FRONT BUMPER COMPARTMENT CENTER	<u>Frt Bumper Cmpt Ctr For Approach Style Bumper</u>	1

O	5503-021	MECHANICAL SIREN	Mechanical Siren Federal Signal Q2B Recess Mnt	1
O	2218-049	MECHANICAL SIREN LOCATION	Mech Siren Location Frt Bmpr Face LH Extreme OB	1
S	5501-020	AIR HORN	Air Horn (2) 21" Round Hadley E-Tone	1
O	2216-007	AIR HORN LOCATION	Air Horn Location (2) Frt Bmpr Face RH	1
S	2232-002	AIR HORN RESERVOIR	Air Horn Reservoir (1) 1200 Cu In	1
O	<u>5504-060</u>	ELECTRONIC SIREN SPEAKER	<u>Elect Siren Speaker 100W Federal Signal Dynamax w/EF Grille</u>	1
O	<u>2217-003</u>	ELECTRONIC SIREN SPEAKER LOCATION	<u>Elec Siren Speaker Location Frt Bmpr Face LH IB</u>	1
O	2204-006	FRONT BUMPER TOW EYES	Frt Bumper Tow Eyes 2" Chrome Through	1

CAB TILT

S	2301-001	CAB TILT SYSTEM	Cab Tilt System	1
O	2302-005	CAB TILT AUXILIARY PUMP	Cab Tilt Aux Pump Manual Mnt w/Tilt Pump	1
O	2303-003	CAB TILT LIMIT SWITCH	Cab Tilt Limit Sw Preset Limit	1
S	2305-001	CAB TILT CONTROL RECEPTACLE	Cab Tilt Ctrl Receptacle Temp	1
S	2306-002	CAB TILT LOCK DOWN INDICATOR	Cab Tilt Lock Down Indicator	1

CAB GLASS

S	1401-009	CAB WINDSHIELD	Cab Windshield	1
S	1402-005	GLASS FRONT DOOR	Glass Frt Dr Roll Down/XDuty Regulator	1
S	1407-001	GLASS TINT FRONT DOOR	Glass Tint Frt Dr Automotive Green	1
S	1419-012	GLASS REAR DOOR RIGHT HAND	Glass Rr Dr RH Roll Down/XDuty Regulator	1
S	<u>1430-001</u>	<u>GLASS TINT REAR DOOR RIGHT HAND</u>	<u>Glass Tint Rr Door RH Automotive Green</u>	1
S	1412-013	GLASS REAR DOOR LEFT HAND	Glass Rr Dr LH Roll Down/XDuty Regulator	1
S	1431-001	GLASS TINT REAR DOOR LEFT HAND	Glass Tint Rr Door LH Automotive Green	1
O	1410-010	GLASS SIDE MID RIGHT HAND	Glass Side Mid RH Fxd 16"W x 12"H	1
S	1432-001	GLASS TINT SIDE MID RIGHT HAND	Glass Tint Side Mid RH Automotive Green	1
O	1409-010	GLASS SIDE MID LEFT HAND	Glass Side Mid LH Fxd 16"W x 12"H	1
S	1433-001	GLASS TINT SIDE MID LEFT HAND	Glass Tint Side Mid LH Automotive Green	1

CLIMATE CONTROL

O	<u>1614-115</u>	CLIMATE CONTROL	<u>Climate Ctrl Htr Defroster Frt Under Dash/Htr A/C Tunnel Mnt</u>	1
S	1632-002	CLIMATE CONTROL DRAIN	Climate Control Drain Gravity	1
O	<u>1617-113</u>	CLIMATE CONTROL ACTIVATION	<u>Climate Ctrl Actv Rotary Dash Mnt Ctr Under Dash Defroster/Device Mnt Tunnel A/C</u>	1
O	1603-002	A/C CONDENSER LOCATION	A/C Condenser Location Roof Mnt Mid LH	1
O	1601-001	A/C COMPRESSOR	A/C Compressor Large Capacity	1
O	1530-103	UNDER CAB INSULATION	Under Cab Insulation Eng Tnl w/Removable Alum Overlay	1

CAB INTERIOR

S	1327-001	INTERIOR TRIM FLOOR	Interior Trim Floor	1
S	1302-001	INTERIOR TRIM	Interior Trim Vinyl	1

S	1368-002	REAR WALL INTERIOR TRIM	Rear Wall Interior Trim Vinyl	1
S	1306-006	HEADER TRIM	Header Trim XDuty	1
O	<u>1305-020</u>	TRIM CENTER DASH	<u>Trim Center Dash XDuty w/Under Dash Htr Defroster Provision</u>	1
O	1339-104	TRIM LEFT HAND DASH	Trim LH Dash XDuty w/Htr Defroster Provision	1
O	1321-021	TRIM RIGHT HAND DASH	Trim RH Dash XDuty MDT Prov w/Htr Defroster Provision	1
S	1307-002	ENGINE TUNNEL TRIM	Eng Tnl Trim Flr Mat	1
O	5040-116	POWER POINT DASH MOUNT	Pwr Pnt Dash Mnt Batt Dir (4) Sw Pnl/(2) 2.4A USB Sw Pnl	1
S	1303-038	STEP TRIM	Step Trim Embossed & Diamond Cut Lwr Flex-Tred Mid	1
S	1379-003	UNDER CAB ACCESS DOOR	Under Cab Access Door Rear Step LH Painted	1
S	1102-013	INTERIOR DOOR TRIM	Interior Door Trim Painted	1
S	<u>1323-001</u>	DOOR TRIM CUSTOMER NAMEPLATE	<u>Door Trim Customer Nameplate</u>	1
S	1105-001	CAB DOOR TRIM REFLECTIVE	Cab Dr Trim Reflective Vert Stripe/6" Chevron w/Logo	1
S	<u>1308-001</u>	INTERIOR GRAB HANDLE "A" PILLAR	<u>Interior Grab Handle 'A' Pillar 11" Molded</u>	1
S	<u>1332-008</u>	INTERIOR GRAB HANDLE FRONT DOOR	<u>Interior Grab Handle Frt Door Horiz 9"</u>	1
S	<u>1345-002</u>	INTERIOR GRAB HANDLE REAR DOOR	<u>Int Grab Handle Rr Dr Alum Window Span 30" Black Powder Coat</u>	1
S	1301-003	INTERIOR SOFT TRIM COLOR	Interior Soft Trim Color Gray	1
O	1337-002	INTERIOR TRIM SUNVISOR	Interior Trim Sunvisor Tinted	1
S	1304-001	INTERIOR FLOOR MAT COLOR	Interior Floor Mat Color Gray	1
S	1335-017	CAB PAINT INTERIOR DOOR TRIM	Cab Paint Int Dr Trim Multi-tone Silver Gray	1
S	1371-017	HEADER TRIM INTERIOR PAINT	Header Trim Interior Paint Multi-tone Silver Gray	1
S	<u>1370-019</u>	TRIM CENTER DASH INTERIOR PAINT	<u>Trim Center Dash Interior Paint Multi-tone Silver Gray</u>	1
S	<u>1378-018</u>	TRIM LEFT HAND DASH INTERIOR PAINT	<u>Trim LH Dash Interior Paint Multi-tone Silver Gray</u>	1
S	<u>1373-018</u>	TRIM RIGHT HAND DASH INTERIOR PAINT	<u>Trim RH Dash Interior Paint Multi-tone Silver Gray</u>	1
S	1344-002	DASH PANEL GROUP	Dash Pnl Group 3-Pnl	1
O	1312-074	SWITCHES CENTER PANEL	Switches Ctr Pnl 8 Upr LH	1
O	1313-007	SWITCHES LEFT PANEL	Switches Left Pnl 5 (3+2) w/Headlight/Dimmer/Wiper	1
S	1314-001	SWITCHES RIGHT PANEL	Switches Right Pnl 0	1

CAB SEATS

S	1225-007	SEAT BELT WARNING	Seat Belt Warn Vista Display w/VDR	1
O	1237-004	SEAT MATERIAL	Seat Material Turnout Tuff	1
S	1243-001	SEAT COLOR	Seat Color Gray/Red Seat Belts	1
S	1249-001	SEAT BACK LOGO	Seat Back Logo Spartan	4
O	1201-021	SEAT DRIVER	Seat Driver Seats Inc Battalion 10-Way Elect ABTS	1
S	1213-025	SEAT BACK DRIVER	Seat Back Driver Non-SCBA ABTS	1
S	1219-001	SEAT MOUNTING DRIVER	Seat Mounting Driver	1
O	1202-020	SEAT OFFICER	Seat Officer Seats Inc Battalion 6-Way Elect ABTS	1
O	1214-034	SEAT BACK OFFICER	Seat Back Officer SCBA IMMI SmartDock	1
O	1220-006	SEAT MOUNTING OFFICER	Seat Mounting Officer Fwd 3"	1

S	1297-002	POWER SEAT WIRING	Power Seats Wiring Battery Direct	1
S	1273-001	SEAT BELT ORIENTATION CREW	<u>Seat Belt Orientation Crew Outboard Shoulder To Inboard Hip</u>	1
S	1266-001	SEAT FORWARD FACING CENTER LOCATION	<u>Seat FFC Location (2) Ctr</u>	1
O	1206-019	SEAT CREW FORWARD FACING CENTER	<u>Seat Crew FFC Seats Inc Battalion Flip-Up</u>	2
O	1218-001	SEAT BACK FORWARD FACING CENTER	<u>Seat Back FFC Non-SCBA ABTS</u>	2
O	1269-107	SEAT FRAME FORWARD FACING	Seat Frm Fwd Fcg Short Dual	1
O	1281-112	SEAT FRAME FORWARD FACING STORAGE ACCESS	<u>Seat Frm Fwd Fcg Strg Acc Dr (2) R/L Sd Short</u>	1
S	1224-002	SEAT MOUNTING FORWARD FACING CENTER	<u>Seat Mounting Forward Facing Center</u>	1
S	1311-101	CAB FRONT UNDERSEAT STORAGE ACCESS DOOR	<u>Cab Frt Undrst Strg Acc Dr</u>	1
S	1355-019	SEAT COMPARTMENT DOOR FINISH	Seat Compartment Door Finish Multi-tone Silver Gray	1

CAB EXTERIOR

S	1511-200	WINDSHIELD WIPER SYSTEM	Windshield Wiper System	1
S	1534-002	ELECTRONIC WINDSHIELD FLUID LEVEL INDICATOR	<u>Electronic Windshield Fluid Level Indicator</u>	1
O	1103-004	CAB DOOR HARDWARE	Cab Door Hardware Chrome w/Scuff Plate	1
O	1111-004	DOOR LOCKS	Door Locks Power (4) Entry Doors	1
O	1113-003	DOOR LOCK LH EMS COMPARTMENT	<u>Door Lock LH EMS Compartment Hng Power</u>	1
O	1114-003	DOOR LOCK RH EMS COMPARTMENT	<u>Door Lock RH EMS Compartment Hng Power</u>	1
O	1112-003	POWER DOOR LOCK COMPARTMENT ACTIVATION	<u>Power Door Lock Cmpt Actv MUX</u>	1
S	1503-200	GRAB HANDLES	Grab Handles SS 18"	1
O	1504-039	REARVIEW MIRRORS	Mirror Bus Style Ramco CRM-310-1750-CHCHR	1
S	1529-003	REARVIEW MIRROR HEAT SWITCH	Rearview Mirror Heat Sw MUX	1
O	1513-010	CAB FENDER	Cab Fender Alum Wide	1
S	1514-002	MUD FLAPS FRONT	Mud Flaps Frt	1
O	1526-031	CAB EXTERIOR FRONT & SIDE EMBLEMS	<u>Cab Ext Frt & Side Emblems Spartan w/Side Shiploose</u>	1

START / CHARGING SYSTEMS

S	5109-001	IGNITION	Ign Mstr Sw w/Keyless Start	1
S	5101-021	BATTERY	Batt (6) Group 31 Harris	1
S	5106-003	BATTERY TRAY	Batt Tray (2) R/L Steel	1
S	5107-007	BATTERY BOX COVER	Batt Box Cover (2) Steel w/Black Handles	1
S	5102-001	BATTERY CABLE	Batt Cables	1
S	5108-010	BATTERY JUMPER STUD	Batt Jumper Stud Frt LH Lwr Step 8" Apart	1
S	5104-002	ALTERNATOR	Alternator Leece-Neville 320A	1
S	5105-001	STARTER MOTOR	Starter Motor Delco	1

LINE VOLTAGE ELECTRICAL POWER DISTRIBUTION

O	<u>5202-116</u>	BATTERY CONDITIONER	<u>Batt Cond Kussmaul Auto Charge 40 LPC Shiploose w/12' Coil</u>	1
O	5203-003	BATTERY CONDITIONER DISPLAY	Batt Cond Display LH Cab Side Fwd	1
O	5209-039	ELECTRICAL INLET LOCATION	Elec Inlet Location LH Cab Side Fwd Mid	1
S	5204-055	ELECTRICAL INLET	Elec Inlet 120V 20A Auto Eject	1
O	5210-004	ELECTRICAL INLET CONNECTION	Elec Inlet Conn to Batt Conditioner	1
O	5206-010	ELECTRICAL INLET COLOR	Elec Inlet Color White	1

LIGHTING

S	5301-102	HEADLIGHTS	Headlights 4 Headlamps LED	1
S	5337-001	HEADLIGHT LOCATION	Headlights Below Frt Warn Lts	1
S	5303-004	FRONT TURN SIGNALS	Frt Turn Signals Whelen 600 LED	1
S	5336-015	SIDE TURN/MARKER LIGHTS	Side Turn/Marker Lts LED Tecniq S170	1
O	5302-024	MARKER & ICC LIGHTS	Marker & ICC Lts Face Mnt LED Tecniq S170 No Bezel	1
O	<u>5350-092</u>	HEADLIGHT AND MARKER LIGHT ACTIVATION	<u>Hdlt & Mrkr Lt Actv Rkr Sw/DRL Ign Sw</u>	1
O	5426-008	LIGHTBAR SWITCH	Lightbar Sw Vista w/Clear Lt Cutoff	1
O	5305-351	INTERIOR OVERHEAD LIGHTS	Interior Overhead Lts Weldon Red/Clear Split Lens LED	1
S	<u>5388-003</u>	INTERIOR OVERHEAD LIGHTING ACTIVATION	<u>Int Ovrhd Lt Actv Resp Dr & MUX</u>	1
O	5403-051	LIGHTBAR PROVISION	Lightbar Prov Wire & Mnt (2) Chassis Supply	1
O	<u>5450N-006</u>	CAB FRONT LIGHTBAR MODEL	<u>Cab Front Lightbar Model Whelen F4NMINI (2)</u>	1
S	5450-999	CAB FRONT LIGHTBAR	Cab Front Lightbar - Configured in 5450M Subcategory	1
S	<u>5450M-002</u>	FRONT LIGHTBAR LAYOUT	<u>Cab Front Lightbar Layout</u>	1
O	<u>5450X-003</u>	FRONT LIGHTBAR ORIENTATION	<u>Front Lightbar Orientation - Outboard/Aerial Mnt</u>	1
O	<u>5450L2-002</u>	FRONT LIGHTBAR LIGHT POSITION 2	<u>Cab Front Lightbar Position 2 - Red LH Side</u>	1
O	<u>5450L4-003</u>	FRONT LIGHTBAR LIGHT POSITION 4	<u>Cab Front Lightbar Position 4 - White</u>	1
O	<u>5450L5-007</u>	FRONT LIGHTBAR LIGHT POSITION 5	<u>Cab Front Lightbar Position 5 - Red Steady Burn</u>	1
O	<u>5450L12-003</u>	FRONT LIGHTBAR LIGHT POSITION 12	<u>Cab Front Lightbar Position 12 - White</u>	1
O	<u>5450L13-002</u>	FRONT LIGHTBAR LIGHT POSITION 13	<u>Cab Front Lightbar Position 13 - Red</u>	1
O	<u>5450L15-032</u>	FRONT LIGHTBAR LIGHT POSITION 15	<u>Cab Front Lightbar Position 15 - Red RH Side</u>	1
O	5317-243	FRONT SCENE LIGHTS	Frt Scene Lts FireTech FT-MB-12-FT-W 12V LED (2) White	1
O	5329-006	FRONT SCENE LIGHT LOCATION	Frt Scene Lt Loc (2) Outboard Brow Pos	1
O	5335-003	FRONT SCENE LIGHTS ACTIVATION	Frt Scene Lts Actv Vista	1
O	5306-065	SIDE SCENE LIGHTS	Side Scene Lts Whelen 900 12V Super 24 LED Clear Gradient	1
O	5318-004	SIDE SCENE LIGHT LOCATION	Side Scene Lt Loc Upper Mid Rwd 10" Roof Position	1
O	5316-007	SIDE SCENE ACTIVATION	Side Scene Actv Indv Vista Buttons	1
S	5308-300	GROUND LIGHTS	Ground Lts Tecniq T44 LED	1

O	5386-011	GROUND LIGHTING ACTIVATION	Ground Lt Actv Resp Sd Dr & Rkr Sw	1
S	5309-003	LOWER CAB STEP LIGHTS	Lwr Cab Step Lts Tecniq T44 LED	1
O	5382-007	INTERMEDIATE STEP LIGHTS	Intermediate Step Lts Tecniq D06 LED	1
O	5310-002	MAP LIGHTS	Map Lt Roxter RH Dash	1
S	5312-003	ENGINE COMPARTMENT LIGHT	Engine Cmpt Work Lt LED (1)	1

OPTICAL WARNING DEVICES

S	5406-119	DO NOT MOVE APPARATUS LIGHT	Do Not Move App Lt Flashing Red Tecniq K50 LED w/Alarm	1
S	5422-002	MASTER WARNING SWITCH	Mstr Warn Sw MUX	1
S	5409-002	HEADLIGHT FLASHER	Headlight Flasher Alternating	1
O	5425-018	HEADLIGHT FLASHER SWITCH	Headlight Flasher Sw Pnl	1
O	5401-002	INBOARD FRONT WARNING LIGHTS	Inboard Frt Warn Lts Whelen 600 LED Chrm Bezel	1
O	5413-002	INBOARD FRONT WARNING LIGHTS COLOR	<u>Inboard Frt Warn Lts Color Red</u>	1
O	5423-003	FRONT WARNING SWITCH	Frt Warn Sw Vista	1
O	5404-002	INTERSECTION WARNING LIGHTS	Intersection Warn Lts Whelen 600 Super LED	1
O	5419-002	INTERSECTION WARNING LIGHTS COLOR	<u>Int Warn Lts Color Red</u>	1
O	5420-002	INTERSECTION WARNING LIGHTS LOCATION	<u>Intersection Warn Lts Location Bumper Tail Rwd</u>	1
O	5402-002	SIDE WARNING LIGHTS	Side Warn Lts Whelen 600 Super LED	1
O	5418-002	SIDE WARNING LIGHTS COLOR	Side Warn Lts Color Red	1
O	5412-009	SIDE WARNING LIGHTS LOCATION	Side Warn Lts Location Lwr Mid Fwd Position	1
O	5424-003	SIDE AND INTERSECTION WARNING SWITCH	<u>Side & Intersection Warn Sw Vista</u>	1
O	5449-049	REAR WARNING LIGHTS	<u>Rr Warn Lts Prewire & Cutout Whelen TACTL5 Traf Advsr Sw Pnl MstrPwr</u>	1

AUDIBLE WARNING DEVICES

O	5510-004	SIREN CONTROL HEAD	Siren Ctrl Head Whelen 295HFS2	1
O	5514-002	STEERING WHEEL HORN BUTTON SELECTOR SWITCH	<u>Horn Btn Sel Sw Elec Horn/Air Horn</u>	1
O	5527-004	AUDIBLE WARNING RH FOOT SWITCH	<u>Audible Warning RH Foot Switch Siren</u>	1
O	5527C-001	MECHANICAL SIREN FOOT SWITCH RH	<u>Mechanical Siren Foot Switch RH Linemaster 491-S</u>	1
O	5527D-001	MECHANICAL SIREN FOOT SWITCH RH LOCATION	<u>Mechanical Siren Foot Switch RH Location Temporary Behind Dash Panel Coiled</u>	1
S	5512-042	AIR HORN AUXILIARY ACTIVATION	Air Horn Actv PB Sw Pnl	1
O	5513-503	MECHANICAL SIREN BRAKE/AUXILIARY ACTIVATION	<u>Mech Siren Brk (2) Sws</u>	1
O	5532-001	MECHANICAL SIREN INTERLOCK	Mechanical Siren Interlock Master Warn Only	1
S	5505-002	BACK-UP ALARM	Back-Up Alarm Ecco 575	1

INSTRUMENTATION

S	5601-041	INSTRUMENTATION	Instrumentation Standard	1
S	5624-001	BACKLIGHTING COLOR	Backlighting Color Red	1

COMMUNICATIONS SYSTEMS

O	5701-300	RADIO	Radio Jensen WB/AM/FM/iPod/Sat/BT	1
O	5736-200	RADIO LOCATION	Radio Overhead RH	1
O	5707-003	AM/FM ANTENNA	AM/FM Antenna RH Fwd Cab Roof	1
O	5737-200	RADIO SPEAKERS	Radio Speakers (4) Front/Rear	1
O	5726-002	CAMERA LEFT HAND	Camera LH Teardrop	1
O	5727-002	CAMERA RIGHT HAND	Camera RH Teardrop	1
O	5728-009	CAMERA REAR	Camera HD Rear Box	1
O	5731-004	CAMERA DISPLAY	Camera Display on Vista	1
O	5732-002	CAMERA SPEAKER	Camera Speaker	1
O	5702-023	TWO-WAY RADIOS	Two-Way Radio Exterior Conduit to Under RH Seat	1
S	5020-002	PANEL LAYOUT	Panel Layout	1

ADDITIONAL EQUIPMENT

S	8814-002	CAB EXTERIOR PROTECTION	Cab Exterior Protection Front	1
S	8806-001	FIRE EXTINGUISHER	Fire Extinguisher Shiploose	1
O	8807-002	ROAD SAFETY KIT	Road Safety Kit Shiploose	1
S	8810-001	DOOR KEYS	Door Keys for Manual Locks (4)	1

SALES ADMIN

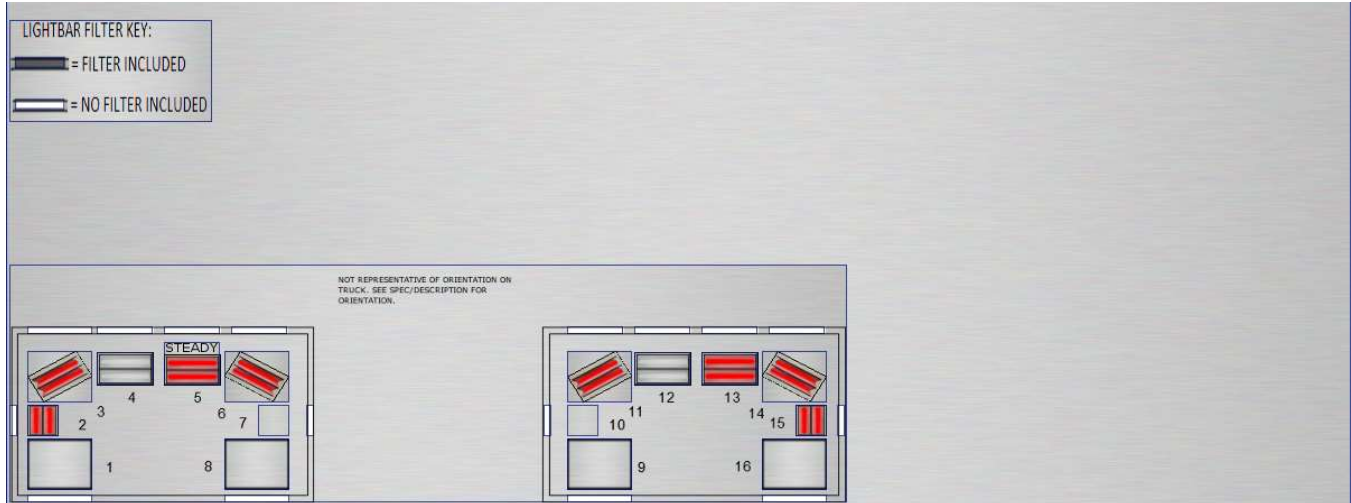
S	8003-197	WARRANTY	Warranty Cab and Chassis (2) Year RFW0102	1
S	8030-006	CHASSIS OPERATION MANUAL	Chassis Operation Manual Digital Copy (2)	1
S	<u>8031-024</u>	ENGINE & TRANSMISSION OPERATION MANUAL	<u>Eng & Trans Operation Man Eng Hard Copy/Trans Digital/Eng Owner Digital</u>	1
O	<u>8032-018</u>	ENGINE SERVICE MANUAL	<u>Engine Service Manual Hard Copy Cummins Lg Displacement</u>	1
O	8033-002	TRANSMISSION SERVICE MANUAL	Transmission Service Manual Hard Copy Allison 4000 EVS	1
S	<u>8805-007</u>	CAB/CHASSIS AS BUILT WIRING DIAGRAMS	<u>Cab/Chassis As Built Wiring Diagrams Digital Copy (2)</u>	1
S	8039-001	SALES TERMS	Sales Terms	1

ENGINEERING

O	9005-002	DRIVELINE LAYOUT CONFIRMATION	Driveline Layout Confirmation Required	1
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Front Lightbar Layout

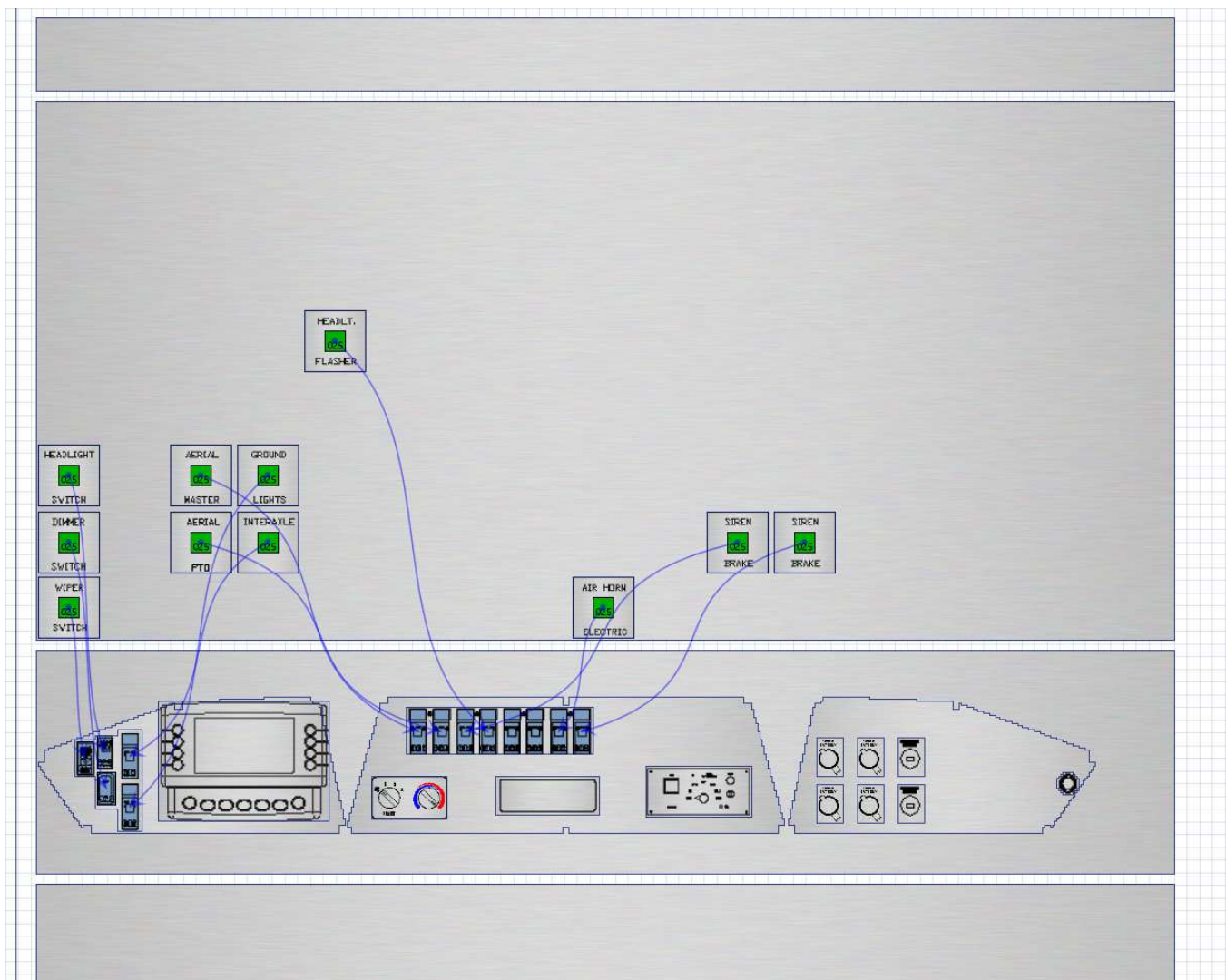
5450M-002 Cab Front Lightbar Layout



Option Description

- NO Cab Front Lightbar Position 1 Filter
 - NO Cab Front Lightbar Position 2 Filter
 - NO Cab Front Lightbar Position 3 Filter
 - NO Cab Front Lightbar Position 4 Filter
 - NO Cab Front Lightbar Position 5 Filter
 - NO Cab Front Lightbar Position 6 Filter
 - NO Cab Front Lightbar Position 11 Filter
 - NO Cab Front Lightbar Position 12 Filter
 - NO Cab Front Lightbar Position 13 Filter
 - NO Cab Front Lightbar Position 14 Filter
 - NO Cab Front Lightbar Position 15 Filter RH Side
 - NO Cab Front Lightbar Position 16 Filter Rear RH Corner
 - NO Cab Front Lightbar Position 7 Filter RH Side
 - NO Cab Front Lightbar Position 8 Filter Rear RH Corner
 - NO Cab Front Lightbar Position 9 Filter Rear LH Corner
 - NO Cab Front Lightbar Position 10 Filter LH Side
 - Cab Front Lightbar Position 1 - Blank Rear LH Corner
 - Cab Front Lightbar Position 2 - Red LH Side
 - Cab Front Lightbar Position 3 - Red Front LH Corner
 - Cab Front Lightbar Position 4 - White
 - Cab Front Lightbar Position 5 - Red Steady Burn
 - Cab Front Lightbar Position 6 - Red Front RH Corner
 - Cab Front Lightbar Position 7 - Blank RH Side
 - Cab Front Lightbar Position 8 - Blank RH Corner
 - Cab Front Lightbar Position 10 - Blank LH Side
 - Cab Front Lightbar Position 9 - Blank Rear LH Corner
 - Cab Front Lightbar Position 11 - Red Front LH Corner
 - Cab Front Lightbar Position 12 - White
 - Cab Front Lightbar Position 13 - Red
 - Cab Front Lightbar Position 14 - Red Front RH Corner
 - Cab Front Lightbar Position 15 - Red RH Side
 - Cab Front Lightbar Position 16 - Blank Rear RH Corner
- FRONT LIGHTBAR LEGEND INSERT

5020-002 Panel Layout



Option Description
 SWITCH PANEL - MISC PANELS
 LEGEND LOCATION
 SW PNL CENTER 8 SWITCHES UPPER LH 99"
 WHELEN TACTL CONTROLLER CUTOUT
 SIREN CONTROL HEAD WHELEN 295HFS2
 CLIMATE CTRLS DASH ROTARY UNDERDASH HTR DEFROSTER CTR PNL
 AIR HORN PB 2010 94"
 USB POWER POINT DASH MNT (2) BATT DIR 2010 94"
 PWR POINT DASH MNT (5) BATT DIR
 USB POWER POINT DASH MNT BATT DIR (3)
 PWR POINT DASH MNT (4) BATT DIR
 POWER POINT DASH MNT (1) BATT DIR
 PWR POINT DASH MNT (4) BATT DIR
 MUX DISPLAY (1) DRIVER PNL 2010
 SWITCH PANEL FAR LH (5) SWITCH 2010
 LH PTO 'AERIAL MASTER'
 PTO AERIAL CONTROL RKR ACTV 'AERIAL PTO'
 GROUND LTS RKR SW MUX
 HDLT & MRKR LT ACTV DIMMER SW

HDLT & MRKR LT RKR SW 94/96
HEADLIGHT FLASHER SW
WINDSHIELD WIPER SYSTEM SINGLE MOTOR
Rear Axle Differential Ctrl Interaxle Lock
HORN RING SEL SW ELEC HORN/AIR HORN
MECH SIREN BRK RKR SW
MECH SIREN BRK RKR SW

Specification

0100-012

MODEL

The chassis shall be a Gladiator model. The cab and chassis shall include design considerations for multiple emergency vehicle applications, rapid transit and maneuverability. The chassis shall be manufactured for heavy duty service with the strength and capacity to support a fully laden apparatus, one hundred (100) percent of the time.

8011-024

MODEL YEAR

The chassis shall have a vehicle identification number that reflects a 2024 model year.

8001-001

COUNTRY OF SERVICE

The chassis shall be put in service in the country of United States of America (USA).

The chassis will meet applicable U.S.A. federal motor vehicle safety standards per CFR Title 49 Chapter V Part 571 as clarified in the incomplete vehicle book per CFR Title 49 Chapter V Part 568 Section 4 which accompanies each chassis. The chassis manufacturer is not responsible for compliance to state, regional, or local regulations. Dealers should identify those regulations and order any necessary optional equipment from the chassis manufacturer or their OEM needed to be in compliance with those regulations.

8017-009

CAB AND CHASSIS LABELING LANGUAGE

The cab and chassis shall include the applicable caution, warning, and safety notice labels with text to be written in English. All applicable caution, warning, and safety notice labels shall be Innovative Controls brand. Where applicable to the location within the specific layout and label package of the cab and chassis, the labels shall include decorative chrome bezels. Designs shall include bezels that fit individual labels or packaged configurations of labels in certain common locations.

The following labels shall be Innovative Controls brand, each including a decorative chrome bezel (where applicable):

- Shoreline
- Aerial Stowed
- Aerial Breakers 2
- Air Conditioner
- Cab Tilt Plate
- Air Compressor Breaker
- Battery Conditioner Breaker
- Helmet Caution
- Horn Tag

- Q2B Tag
- Load Center Plate
- Not a Step Label
- Occupancy Tag
- Do Not Move
- Occupants Must Be Seated
- Do Not Stand
- Danger Do Not Weld
- Danger--Untrained Operator
- DEF Fill Access (Including Additional 2907 Optional Labels)
- Battery Direct
- Kneeling
- IFS Air Fault
- Engine Brake
- Retarder
- LR 100 Amp Node
- 300 Amp EPU
- 100 Amp Front O/R Node
- 100 Amp T/T Node
- 100 Amp RR O/R Node
- 10 Amp EPU
- Master Power
- 12 Volt Power
- Aerial Hours
- Pump In Drive

Windshield Washer Fluid

8006-011

APPARATUS TYPE

The apparatus shall be a Quint vehicle designed for emergency service use. The apparatus shall include a permanently mounted fire pump which has a minimum rated capacity of 750 gallons per minute (3000 L/min), a water tank, a hose storage area, a compliment of ground ladders, and an aerial ladder or elevating platform with a permanently mounted waterway that shall be rear mounted thus providing the following vehicle benefits:

- Improved mobility vs. mid-ship mounted units, due to shorter overall travel length and wheelbase.
- Increased compartment space, hose load, and water capacity in the body, resulting from ladder being raised to clear the cab.
- Shorter vehicle wheelbase.

Shorter overall length of vehicle.

8008-001

VEHICLE TYPE

The chassis shall be manufactured for use as a straight truck type vehicle and designed for the installation of a permanently mounted apparatus behind the cab. The apparatus of the vehicle shall be supplied and installed by the apparatus manufacturer.

8008A-000

VEHICLE ANGLE OF APPROACH PACKAGE

The angle of approach of the apparatus shall be a minimum of 8.00 degrees.

NFPA1901 Angle of Approach definition:

“To determine the angle of approach, place a thin steel strip against the front of the tires where they touch the ground or stretch a tight string from one front tire to the other at the front where they touch the ground. Determine the lowest point (component or equipment) on the vehicle forward of the front tire that would make the smallest angle of approach. Hang a plumb bob from the lowest point and mark the point on the ground where the point of the plumb bob touches. Measure the vertical distance from the ground to the point where the plumb bob was hung (distance V). Measure the horizontal distance from the plumb bob point to the steel strip or string running from front tire to front tire (distance H). Divide the vertical distance by the horizontal distance. The ratio of V/H is the tangent of the angle of approach. If the ratio is known, the angle of approach can be determined from a table of trigonometric functions of angles or from a math calculator. The standard requires a minimum angle of approach of 8.00 degrees: since the tangent of 8.00 degrees is 0.1405, if V divided by H is 0.1405 or larger, the angle of approach is 8.00 degrees or greater.”

0104-003

AXLE CONFIGURATION

The chassis shall feature a 6 x 4 axle configuration consisting of a tandem rear drive axle set with a single front steer axle.

0101-016

GROSS AXLE WEIGHT RATINGS FRONT

The front gross axle weight rating (GAWR) of the chassis shall be 23,000 pounds.

This front gross axle weight rating shall be adequate to carry the weight of the completed apparatus including all equipment and personnel.

0102-010

GROSS AXLE WEIGHT RATINGS REAR

The rear gross axle weight rating (GAWR) of the chassis shall be 52,000 pounds.

This rear gross axle weight rating shall be adequate to carry the weight of the completed apparatus including all equipment and personnel.

8010-201

PUMP PROVISION

The chassis shall include provisions to mount a drive line pump in the middle of the chassis, behind the cab, more commonly known as the midship location. Chassis driveline pump provisions shall include an interlock feature for automatic setting of the park brake when the vehicle is shifted into pump mode while the transmission is in neutral and the transmission output speed translates to less than 1 mph.

When the conditions are met the driver side parking brake valve shall activate. Once shifted to road mode the condition for electric automatic brake engagement is no longer present and the driver's parking brake control valve shall function normally.

8009-004

WATER & FOAM TANK CAPACITY

The chassis shall include a carrying capacity of up to 750 gallons (2839 liters). The water and/or foam tank(s) shall be supplied and installed by the apparatus manufacturer.

1000-004

CAB STYLE

The cab shall be a custom, fully enclosed, MFD model with a 10.00 inch raised roof over the driver, officer, and crew area, designed and built specifically for use as an emergency response vehicle by a company specializing in cab and chassis design for all emergency response applications. The cab shall be designed for heavy-duty service utilizing superior strength and capacity for the application of protecting the occupants of the vehicle. This style of cab shall offer up to eight (8) seating positions.

The cab shall incorporate a fully enclosed design with side wall roof supports, allowing for a spacious cab area with no partition between the front and rear sections of the cab. To provide a superior finish by reducing welds that fatigue cab metal; the roof, the rear wall and side wall panels shall be assembled using a combination of welds and proven industrial adhesives designed specifically for aluminum fabrication for construction.

The cab shall be constructed using multiple aluminum extrusions in conjunction with aluminum plate, which shall provide proven strength and the truest, flattest body surfaces ensuring less expensive paint repairs if needed. All aluminum welding shall be completed to the American Welding Society and ANSI D1.2-96 requirements for structural welding of aluminum.

All interior and exterior seams shall be sealed for optimum noise reduction and to provide the most favorable efficiency for heating and cooling retention.

The cab shall be constructed of 5052-H32 corrosion resistant aluminum plate. The cab shall incorporate tongue and groove fitted 6061-T6 0.13 & 0.19 inch thick aluminum extrusions for extreme duty situations. A single formed, one (1) piece extrusion shall be used for the "A" pillar, adding strength and rigidity to the cab as well as additional roll-over protection. The cab side walls and lower roof skin shall be 0.13 inch thick; the rear wall and raised roof skins shall be 0.09 inch thick; the front cab structure shall be 0.19 inch thick.

The exterior width of the cab shall be 99.40 inches wide with a minimum interior width of 91.00 inches. The overall cab length shall be 131.10 inches with 54.00 inches from the centerline of the front of the axle to the back of the cab.

The cab interior shall be designed to afford the maximum usable interior space and attention to ergonomics with hip and legroom while seated which exceeds industry standards. The crew cab floor shall be flat across the entire walking area for ease of movement inside the cab.

The cab shall offer an interior height of 57.50 inches from the front floor to the headliner in the non-raised roof area and a rear floor to headliner height of 65.00 inches in the raised roof area, at a minimum.

The cab shall offer an interior measurement at the floor level from the rear of the engine tunnel to the rear wall of the cab of 49.88 inches. All interior measurements shall include the area within the interior trimmed surfaces and not to any unfinished surface.

The cab shall include a driver and officer area with two (2) cab doors large enough for personnel in full firefighting gear. The front doors shall offer a clear opening of 40.25 inches wide X 53.50 inches high, from the cab floor to the top of the door opening. The cab shall also include a crew area with up to two (2) cab doors, also large enough for personnel in full firefighting gear. The rear doors shall offer a clear opening of 32.25 inches wide X 61.00 inches high, from the cab floor to the top of the door opening.

The cab shall incorporate a progressive two (2) step configuration from the ground to the cab floor at each door opening. The progressive steps are vertically staggered and extend the full width of each step well allowing personnel in full firefighting gear to enter and exit the cab easily and safely.

The first step for the driver and officer area shall measure approximately 11.50 inches deep X 31.13 inches wide. The intermediate step shall measure approximately 8.50 inches deep X 32.50 inches wide. The height from the first step to the intermediate step and the intermediate step to the cab floor shall not exceed 11.00 inches.

The first step for the crew area shall measure approximately 11.50 inches deep X 20.44 inches wide. The intermediate step shall measure approximately 10.25 inches deep X 22.75 inches wide. The height from the first step to the intermediate step and the intermediate step to the cab floor shall not exceed 12.80 inches.

1501-002

CAB FRONT FASCIA

The front cab fascia shall be constructed of 5052-H32 Marine Grade, 0.13 of an inch thick aluminum plate which shall be an integral part of the cab.

The cab fascia will encompass the entire front of the aluminum cab structure from the bottom of the windshield to the bottom of the cab and shall be the "Classic" design.

The front cab fascia shall include two (2) molded plastic modules on each side accommodating a total of up to four (4) Hi/Low beam headlights and two (2) turn signal lights or up to four (4) warning lights. A chrome plated molded plastic bezel shall be provided on each side around each set of four lamps.

1518-025

FRONT GRILLE

The front cab fascia shall include a classic box style, 304 stainless steel front grille. The grille shall measure 55.45 wide X 33.50 inches high X 1.50 inches deep. The upper portion of the grille shall be hinged to provide service access behind the grille. The grille shall include a minimum free air intake of 750.00 square inches.

1551-002

CAB UNDERCOAT

There shall be a rubberized undercoating applied to the underside of the cab that provides abrasion protection, sound deadening and corrosion protection.

1552-002

CAB SIDE DRIP RAIL

There shall be a drip rail along the top radius of each cab side. The drip rails shall help prevent water from the cab roof running down the cab side.

1521-001

CAB PAINT EXTERIOR

The cab shall be painted prior to the installation of glass accessories and all other cab trim to ensure complete paint coverage and the maximum in corrosion protection of all metal surfaces.

All metal surfaces on the entire cab shall be ground by disc to remove any surface oxidation or surface debris which may hinder the paint adhesion. Once the surface is machine ground a high quality acid etching of base primer shall be applied. Upon the application of body fillers and their preparation, the cab shall be primed with a coating designed for corrosion resistance and surface paint adhesion. The maximum thickness of the primer coat shall be 2.00 mils.

The entire cab shall then be coated with an intermediate solid or epoxy surfacing agent that is designed to fill any minor surface defects, provide an adhesive bond between the primer and the paint and improve the color and gloss retention of the color. The finish to this procedure shall be a sanding of the cab with 360 grit paper followed by sealing the seams with SEM brand seam sealer.

The cab shall then be painted the specific color designated by the customer with an acrylic urethane type system designed to retain color and resist acid rain and most atmospheric chemicals found on the fire ground or emergency scene. The paint shall have a minimum thickness of 2.00 mils, followed by a clear top coat not to exceed 2.00 mils. The entire cab shall then be baked at 180 degrees for one (1) hour to speed the curing process of the coatings.

1533-002

CAB PAINT MANUFACTURER

The cab shall be painted with Sikkens paint.

1522-001

CAB PAINT PRIMARY/LOWER COLOR

The primary/lower paint color shall be:

8013-056

CAB PAINT WARRANTY

Purchaser shall receive a Paint and Finish (Exterior Clear coated) Ten (10) Years limited warranty in accordance with, and subject to, warranty certificate RFW0710. The warranty certificate is incorporated by reference into this proposal, and included with this proposal or available upon request.

1334-036

CAB PAINT INTERIOR

The visible interior cab structure surfaces shall be painted with a multi-tone silver gray texture finish.

1005-001

CAB ENTRY DOORS

The cab shall include four (4) entry doors, two (2) front doors and two (2) crew doors designed for ease of entering and egress when outfitted with an SCBA. The doors shall be constructed of extruded aluminum with a nominal thickness of 0.13 inch. The exterior skins shall be constructed of 0.13 inch aluminum plate.

The doors shall include a double rolled style automotive rubber seal around the perimeter of each door frame and door edge which ensures a weather tight fit.

All door hinges shall be hidden within flush mounted cab doors for a pleasing smooth appearance and perfect fit along each side of the cab. Each door hinge shall be piano style with a 0.38 inch pin and shall be constructed of stainless steel.

1101-102

CAB ENTRY DOOR TYPE

All cab entry doors shall be barrier clear design resulting in exposed lower cab steps. The doors shall provide approximately 32.00 inches of clearance from the ground to the bottom of the door so cab doors may be opened un-hindered by most obstacles encountered, such as guard rails along interstate highways.

Entry doors shall include Pollak mechanical plunger style switches for electrical component activation.

1322-007

CAB INSULATION

The cab ceiling and walls shall include a nonwoven polyester fiber insulation. The insulation shall act as a barrier absorbing noise as well as assisting in sustaining the desired climate within the cab interior.

1556-009

LH MID EMS COMPARTMENT

The cab shall include a compartment located in the middle of the wall above the left side wheel well. The inner rear corner of the compartment shall be chamfered at a 45-degree angle to eliminate the square corner. The chamfered corner shall be cut at a width and depth of 7.00 inches the full height of the compartment. This compartment shall be offset and measure 17.00 inches just inside the door opening offset to 24.00 inches wide X 26.00 inches high X 25.00 inches deep.

1558-007

LH MID EMS EXTERIOR ACCESS

The cab shall include a hinged box pan door featuring a full length stainless steel piano style hinge and a bright aluminum tread plate inner panel located in the middle of the wall above the left side wheel well. The compartment shall have a clear door opening of 15.00 inches wide X 24.00 inches high.

1560-002

LH MID EMS COMPARTMENT INTERIOR

The cab compartment located in the middle of the wall above the left side wheel well shall include solid aluminum walls with no interior access. This compartment shall be finished to customer specification.

1566-002

LH MID EMS COMPARTMENT DOOR HARDWARE

The left side EMS compartment door shall include a locking bent D-ring slam latch. There shall be a switch to activate the open compartment warning light in the cab in the event the door is left ajar.

1557-008

RH MID EMS COMPARTMENT

The cab shall include a compartment located in the middle of the wall above the right side wheel well. The inner rear corner of the compartment shall be chamfered at a 45-degree angle to eliminate the square corner. The chamfered corner shall be cut at a width and depth of 7.00 inches the full height of the compartment. This compartment shall be offset and measure 17.00 inches just inside the door opening offset to 24.00 inches wide X 26.00 inches high X 25.00 inches deep.

1559-007

RH MID EMS EXTERIOR ACCESS

The cab shall include a hinged box pan door featuring a full length stainless steel piano style hinge and a bright aluminum tread plate inner panel located in the middle of the wall above the right side wheel well. The compartment shall have a clear door opening of 15.00 inches wide X 24.00 inches high.

1561-002

RH MID EMS COMPARTMENT INTERIOR

The cab compartment located in the middle of the wall above the right side wheel well shall include solid aluminum walls with no interior access. This compartment shall be finished to customer specification.

1567-002

RH MID EMS COMPARTMENT DOOR HARDWARE

The right side EMS compartment door shall include a locking bent D-ring slam latch. There shall be a switch to activate the open compartment warning light in the cab in the event the door is left ajar.

5384-002

MID EMS COMPARTMENT LIGHTING

The interior portion of each of the mid EMS compartments shall include compartment door activated LED lighting to illuminate all usable surfaces within each compartment.

1535-016

MID EMS COMPARTMENT EXTERIOR FINISH

The mid EMS compartment surfaces that are exposed to the interior of the cab shall be painted with a multi-tone silver gray texture finish.

1536-018

MID EMS COMPARTMENT INTERIOR FINISH

The interior of the mid EMS compartment shall be painted with a multi-tone silver gray texture finish.

1002-011

CAB ROOF TRENCH

The center section of the 10.00 inch raised roof shall include a 50.00 inch wide X 13.00 inch deep trench to accommodate the aerial device.

8004-033

CAB STRUCTURAL WARRANTY

Purchaser shall receive a Cab Structure (Aluminum) Ten (10) Years or 100,000 Miles limited warranty in accordance with, and subject to, warranty certificate RFW0602. The warranty certificate is incorporated by reference into this proposal, and included with this proposal or available upon request.

9001-006

CAB TEST INFORMATION

The cab shall have successfully completed the preload side impact, static roof load application and frontal impact without encroachment to the occupant survival space when tested in accordance with Section 4 of SAE J2420 COE Frontal Strength Evaluation Dynamic Loading Heavy Trucks, Section 5 of SAE J2422 Cab Roof Strength Evaluation Quasi –Static Loading Heavy Trucks and ECE R29 Uniform Provisions Concerning the Approval of Vehicles with regard to the Protection of the Occupants of the Cab of a Commercial Vehicles Annex 3 Paragraph 5.

The above tests have been witnessed by and attested to by an independent third party. The test results were recorded using cameras, high speed imagers, accelerometers and strain gauges. Documentation of the testing shall be provided upon request.

5000-018

ELECTRICAL SYSTEM

The chassis shall include a single starting electrical system which shall include a 12 volt direct current multiplexing system, suppressed per SAE J551. The wiring shall be appropriate gauge cross link with 311 degree Fahrenheit insulation. All SAE wires in the chassis shall be color coded and shall include the circuit number and function where possible. The wiring shall be protected by 275 degree Fahrenheit minimum high temperature flame retardant loom. All nodes and sealed Deutsch connectors shall be waterproof.

5008-072

OEM WIRING

The wiring system shall include a prewire for ECM park brake input and engine ground return circuits located behind the switch panel. The circuits shall include an extra 2.00 feet of wire and shall be labeled “ECM Park Brake Input”.

5006-002

APPARATUS WIRING PROVISION

An apparatus wiring panel shall be installed in the center dash area behind the rocker switch panel which shall include eight (8) open circuits consisting of three (3) 20 amp, one (1) 30 amp, three (3) 10 amp, and one (1) 15 amp circuit, with relays and breakers with trigger wires which shall be routed to the rocker switch panel.

5005-200

MULTIPLEX DISPLAY

The multiplex electrical system shall include a Weldon Vista IV display which shall be located on the left side of the dash in the switch panel. The Vista IV shall feature a full color LCD display screen which includes a message bar displaying the time of day and important messages requiring acknowledgement by the user which shall all be displayed on the top of the screen in the order they are received. There shall be eight (8) push button virtual controls, four (4) on each side of the display for the on-board diagnostics. The display screen shall be video ready for back-up cameras, thermal cameras, and DVD.

The Vista IV display shall offer varying fonts and background colors. The display shall be fully programmable to the needs of the customer and shall offer virtually infinite flexibility for screen configuration options.

5004-002

LOAD MANAGEMENT SYSTEM

The apparatus load management shall be performed by the included multiplex system. The multiplex system shall also feature the priority of sequences and shall shed electrical loads based on the priority list specifically programmed.

5622-003

DATA RECORDING SYSTEM

The chassis shall have a Weldon Vehicle Data Recorder (VDR) system installed. The system shall be designed to meet NFPA 1901 and shall be integrated with the Weldon Multiplex electrical system. The following information shall be recorded:

- Vehicle Speed
- Acceleration
- Deceleration
- Engine Speed
- Engine Throttle Position
- ABS Event
- Seat Occupied Status
- Seat Belt Status
- Master Optical Warning Device Switch Position
- Time
- Date

Each portion of the data shall be recorded at the specified intervals and stored for the specified length of time to meet NFPA 1901 guidelines and shall be retrievable by connecting a laptop computer to the VDR system. The laptop connection shall be a panel mounted female type B USB connection point, remotely mounted in the left side foot well.

5031-013

ACCESSORY POWER

The electrical distribution panel shall include two (2) power studs. The studs shall be size #10 and each of the power studs shall be circuit protected with a fuse of the specified amperage. One (1) power stud shall be capable of carrying up to a 40 amp battery direct load. One (1) power stud shall be capable of

carrying up to a 15 amp ignition switched load. The two (2) power studs shall share one (1) #10 ground stud.

An OEM body connections bracket shall be installed on the chassis near the left hand battery box. The bracket shall include one (1) set each of a 350 amp master power switched and 300 amp battery direct power and ground studs. The 300 amp & 350 amp studs will not have any fuse protection and will be the responsibility of anyone using these studs to have fuse protection for each load attached. The studs will be labeled with max available amperage.

5030-037

AUXILIARY ACCESSORY POWER

An auxiliary ten (10) position blade type fuse panel shall be installed behind the officer's seat. The fuse panel shall be protected by a 40 amp fuse. The panel shall be capable of carrying up to a maximum 40 amp battery direct load. The fuse panel shall include an additional 5.00 feet of coiled wired for permanent relocation by the body builder.

5011-001

EXTERIOR ELECTRICAL TERMINAL COATING

All terminals exposed to the elements will be sprayed with a high visibility protective rubberized coating to prevent corrosion.

8014-002

ELECTRICAL SYSTEM WARRANTY

Purchaser shall receive an Electrical System Two (2) Years or 36,000 Miles limited warranty in accordance with, and subject to, warranty certificate RFW0202. The warranty certificate is incorporated by reference into this proposal, and included with this proposal or available upon request.

1701-172

ENGINE

The chassis engine shall be a Cummins X15 engine. The X15 engine shall be an in-line six (6) cylinder, four cycle diesel powered engine. The engine shall offer a rating of 605 horse power at 1800 RPM and shall be governed at 2100 RPM. The torque rating shall feature 1850 foot pounds of torque at 1000 RPM with 912 cubic inches (14.9 liter) of displacement.

The X15 engine shall feature a VGT™ Turbocharger, a high pressure common rail fuel system, fully integrated electronic controls with an electronic governor, and shall be EPA certified to meet the 2021 emissions standards using cooled exhaust gas recirculation and selective catalytic reduction technology.

The engine shall include an engine mounted combination full flow/by-pass oil filter with replaceable spin on cartridge for use with the engine lubrication system. The engine shall include Citgo brand Citgard 500, or equivalent 15W40 CK-4 low ash engine oil which shall be utilized for proper engine lubrication.

A wiring harness shall be supplied ending at the back of the cab. The harness shall include a connector which shall allow an optional harness for the pump panel. The included circuits shall be provided for a

tachometer, oil pressure, engine temperature, hand throttle, high idle and a PSG system. A circuit for J1939 data link shall also be provided at the back of the cab.

1329-002

CAB ENGINE TUNNEL

The cab interior shall include an integrated engine tunnel constructed of 5052-H32 Marine Grade 0.19 of an inch thick aluminum alloy plate. The tunnel shall be a maximum of 46.50 inches wide X 29.00 inches high.

1731-002

DIESEL PARTICULATE FILTER CONTROLS

There shall be two (2) controls for the diesel particulate filter. One (1) control shall be for regeneration and one (1) control shall be for regeneration inhibit.

1718-002

ENGINE PROGRAMMING HIGH IDLE SPEED

The engine high idle control shall maintain the engine idle at approximately 1250 RPM when engaged.

1719-005

ENGINE HIGH IDLE CONTROL

The vehicle shall be equipped with a virtual Vista button and an automatic high-idle speed control. It shall be pre-set so when activated, it will operate the engine at the appropriate RPM to increase alternator output. This device shall operate only when the engine is running and the transmission is in neutral with the parking brake set. The device shall disengage when the operator depresses the brake pedal, or the transmission is placed in gear, and shall be available to manually or automatically re-engage when the brake is released, or when the transmission is placed in neutral. There shall be an indicator on the Vista display and control screen for the high idle speed control.

1710-001

ENGINE PROGRAMMING ROAD SPEED GOVERNOR

The engine shall include programming which will govern the top speed of the vehicle.

1713-010

AUXILIARY ENGINE BRAKE

A compression brake, for the six (6) cylinder engine shall be provided. A cutout relay shall be installed to disable the compression brake when in pump mode or when an ABS event occurs. The engine compression brake shall activate upon 0% accelerator when in operation mode and actuate the vehicle's brake lights.

The engine shall utilize a variable geometry turbo (VGT) as an integrated auxiliary engine brake to offer a variable rate of exhaust flow, which when activated in conjunction with the compression brake shall enhance the engine's compression braking capabilities.

1708-007

AUXILIARY ENGINE BRAKE CONTROL

An engine compression brake control device shall be included. The electronic control device shall monitor various conditions and shall activate the engine brake only if all of the following conditions are simultaneously detected:

- A valid gear ratio is detected.
- The driver has requested or enabled engine compression brake operation.
- The throttle is at a minimum engine speed position.
- The electronic controller is not presently attempting to execute an electronically controlled final drive gear shift.

The compression brake shall be controlled via an off/low/high virtual button through the Vista display and control screen. The multiplex system shall remember and default to the last engine brake control setting when the vehicle is shut off and re-started.

1720-003

ELECTRONIC ENGINE OIL LEVEL INDICATOR

The engine oil shall be monitored electronically and shall send a signal to activate a warning in the instrument panel when levels fall below normal. The warning shall activate in a low oil situation upon turning on the master battery and ignition switches without the engine running.

1715-004

FLUID FILLS

The front of the chassis shall accommodate fluid fill for the engine oil through the grille. This area shall also accommodate a check for the engine oil. The transmission, power steering, and coolant fluid fills and checks shall be under the cab. The windshield washer fill shall be accessible through the front left side mid step.

1735-001

ENGINE DRAIN PLUG

The engine shall include an original equipment manufacturer installed oil drain plug.

8002-001

ENGINE WARRANTY

The Cummins engine shall be warranted for a period of five (5) years or 100,000 miles, whichever occurs first.

1707-116

REMOTE THROTTLE HARNESS

An apparatus interface wiring harness for the engine and transmission pump interlocks shall be supplied with the chassis. The harness shall include a connector for connection to a chassis pump panel harness supplied by the body builder and shall terminate in the left frame rail behind the cab for connection by the body builder. The harness shall include circuits deemed for a pump panel and shall contain circuits for a hand throttle, and a multiplexed gauge. Separate circuits shall also be included for a pump control switch, "Pump Engaged" and "OK to Pump" indicator lights, open compartment ground, start signal, park brake ground, ignition signal, master power, clean power, customer ignition, air horn solenoid switch, high idle switch and high idle indicator light. The harness shall contain interlocks that will prevent shifting to road or pump mode unless the transmission output speed translates to less than 1 mph and the transmission is in neutral. The shift to pump mode shall also require the park brake be set.

1721-001

ENGINE PROGRAMMING REMOTE THROTTLE

The engine ECM (Electronic Control Module) discreet wire remote throttle circuit shall be turned off for use with a J1939 based pump controller or when the discreet wire remote throttle controls are not required.

1727-001

ENGINE PROGRAMMING IDLE SPEED

The engine low idle speed will be programmed at 700 rpm.

2801-010

ENGINE AIR INTAKE

The engine air intake system shall include an ember separator. This ember separator shall be designed to protect the downstream air filter from embers using a combination of unique flat and crimped metal screens packaged in a heavy duty galvanized steel frame. This multilayered screen shall trap embers and allow them to burn out before passing through the pack.

The engine air intake system shall also include an air cleaner mounted above the radiator. This air cleaner shall utilize a replaceable dry type filter element designed to prevent dust and debris from being ingested into the engine. A service cover shall be provided on the housing, reducing the chance of contaminating the air intake system during air filter service.

The air intake system shall include a restriction indicator light in the warning light cluster on the instrument panel, which shall activate when the air cleaner element requires replacement.

2704-016

ENGINE FAN DRIVE

The engine cooling system fan shall incorporate a thermostatically controlled, Horton fully variable type fan drive with SmartClutch J-1939 CAN controller.

The variable speed fan clutch only engages at the amount needed for proper cooling to facilitate improved vehicle performance, cab heating in cold climates, and fuel economy. The fan clutch design shall be fail-safe so that if the clutch drive fails the fan shall engage to prevent engine overheating due to the fan clutch failure. The fan speed shall include a J-1939 CAN clutch controller to receive signal from the engine control module to activate at variable rates of speed. Variable speeds shall be set through thermostatic and engine speed signals to run as efficiently and quietly as required to maintain temperature.

2701-021

ENGINE COOLING SYSTEM

There shall be a heavy-duty aluminum cooling system designed to meet the demands of the emergency response industry. The cooling system shall have the capacity to keep the engine properly cooled under all conditions of road and pumping operations. The cooling system shall be designed and tested to meet or exceed the requirements specified by the engine and transmission manufacturer and all EPA requirements. The complete cooling system shall be mounted to isolate the entire system from vibration

or stress. The individual cores of the cooling system shall be mounted in a manner to allow expansion and contraction at various rates without inducing stress into the adjoining cores.

The cooling system shall be comprised of a charge air cooler to radiator serial flow package that provides the maximum cooling capacity for the specified engine as well as serviceability. The main components shall include a surge tank, a charge air cooler bolted to the front of the radiator, recirculation shields, a shroud, a fan, and required tubing.

The radiator shall be a down-flow design constructed with aluminum cores, plastic end tanks, and a steel frame. The radiator shall be equipped with a drain cock to drain the coolant for serviceability.

The cooling system shall include a one piece injected molded polymer fan with a three (3) piece fiberglass fan shroud.

The cooling system shall be equipped with a surge tank that is capable of removing entrained air from the system. The surge tank shall be equipped with a low coolant probe and rearward oriented sight glass to observe coolant in the system. A cold fill and observation line shall be included within the frame mounted translucent recovery bottle to monitor the level of the coolant. The surge tank shall have a dual seal cap that meets the engine manufacturer's pressure requirements and allows for expansion and recovery of coolant into a separate integral expansion chamber.

All radiator tubes shall be formed from aluminized steel tubing. Recirculation shields shall be installed where required to prevent heated air from reentering the cooling package and affecting performance.

The charge air cooler shall be a cross-flow design constructed completely of aluminum with cast tanks. All charge air cooler tubes shall be formed from aluminized steel tubing and installed with silicone hump hoses and stainless steel "constant torque" style clamps meeting the engine manufacturer's requirements.

The radiator and charge air cooler shall be removable through the bottom of the chassis.

2711-005

ENGINE COOLING SYSTEM PROTECTION

The engine cooling system shall include a recirculation shield designed to act as a light duty skid plate below the radiator to provide additional protection for the engine cooling system from light impacts, stones, and road debris. The skid plate shall be painted to match the frame components.

2708-001

ENGINE COOLANT

The cooling package shall include Extended Life Coolant (ELC). The use of ELC provides longer intervals between coolant changes over standard coolants providing improved performance. The coolant shall contain a 50/50 mix of ethylene glycol and de-ionized water to keep the coolant from freezing to a temperature of -34 degrees Fahrenheit.

Proposals offering supplemental coolant additives (SCA) shall not be considered, as this is part of the extended life coolant makeup.

2707-002

ENGINE COOLANT FILTER

An engine coolant filter with a shut-off valve for the inlet and outlet shall be installed on the chassis. The location of the filter shall allow for easy maintenance.

Proposals offering engines equipped with coolant filters shall be supplied with standard non-chemical type particulate filters.

2706-003

ELECTRONIC COOLANT LEVEL INDICATOR

The instrument panel shall feature a low engine coolant indicator light which shall be located in the center of the instrument panel. An audible tone alarm shall also be provided to warn of a low coolant incident.

2705-002

ENGINE PUMP HEAT EXCHANGER

A single bundle type coolant to water heat exchanger shall be installed between the engine and the radiator. The heat exchanger shall be designed to prohibit water from the pump from coming in contact with the engine coolant. This shall allow the use of water from the discharge side of the pump to assist in cooling the engine.

2709-001

COOLANT HOSES

The cooling systems hose shall be formed silicone hose and formed aluminized steel tubing and include stainless steel constant torque band clamps.

2710-005

ENGINE COOLANT OVERFLOW BOTTLE

A remote engine coolant overflow expansion bottle shall be provided in the case of over filling the coolant system. The overflow bottle shall capture the expansion fluid or overfill rather than allow the fluid to drain on the ground.

2901-074

ENGINE EXHAUST SYSTEM

The exhaust system shall include an end-in end-out horizontally mounted single module after treatment device, and downpipe from the charge air cooled turbo. The single module shall include four temperature sensors, diesel particulate filter (DPF), urea dosing module (UL2), and a selective catalytic reduction (SCR) catalyst to meet current EPA standards. The selective catalytic reduction catalyst utilizes a diesel exhaust fluid solution consisting of urea and purified water to convert NOx into nitrogen, water, and trace amounts of carbon dioxide. The solution shall be mixed and injected into the system through the DPF and SCR.

The system shall utilize 0.07 inch thick stainless steel exhaust tubing between the engine turbo and the DPF. Zero leak clamps seal all system joints between the turbo and DPF.

The single module after treatment through the end of the tailpipe shall be connected with zero leak clamps. The discharge shall terminate horizontally on the right side of the vehicle ahead of the rear tires.

The exhaust system after treatment module shall be mounted below the frame in the inboard position. The mounting brackets shall be mounted on the inside of the frame.

2907-003

DIESEL EXHAUST FLUID TANK

The exhaust system shall include a molded cross linked polyethylene tank for Diesel Exhaust Fluid (DEF). The tank shall have a capacity of six (6) usable gallons and shall be mounted on the left hand side of the chassis frame behind the batteries below the frame.

The DEF tank shall be designed with capacity for expansion in case of fluid freezing. Engine coolant, which shall be thermostatically controlled, shall be run through lines in the tank to help prevent the DEF from freezing and to provide a means of thawing the fluid if it should become frozen.

The tank fill tube shall be routed under the rear of the cab with the fill neck and splash guard accessible in the top rear step.

2902-010

ENGINE EXHAUST ACCESSORIES

An exhaust temperature mitigation device shall be shipped loose for installation by the body manufacturer on the vehicle. The temperature mitigation device shall lower the temperature of the exhaust by combining ambient air with the exhaust gasses at the exhaust outlet.

2906-002

ENGINE EXHAUST WRAP

The exhaust tubing between the engine turbo and the diesel particulate filter (DPF) shall be wrapped with a thermal cover in order to retain the necessary heat for DPF regeneration. The exhaust wrap shall also help protect surrounding components from radiant heat which can be transferred from the exhaust.

The exhaust flex joint shall not include the thermal exhaust wrap.

8018-002

EMISSIONS SYSTEMS WARRANTY

Purchaser shall receive a Regulated Emissions Systems Five (5) Years or 100,000 Miles limited warranty in accordance with, and subject to, warranty certificate RFW0140. The warranty certificate is incorporated by reference into this proposal, and included with this proposal or available upon request.

1801-018

TRANSMISSION

The drive train shall include an Allison model EVS 4000 torque converting, automatic transmission which shall include electronic controls and an output retarder. The transmission shall feature two (2) 10-bolt PTO pads located on the converter housing.

The transmission shall include two (2) internal oil filters which shall offer Castrol TranSynd™ synthetic TES 295 transmission fluid which shall be utilized in the lubrication of the EVS transmission. An electronic oil level sensor shall be included with the readout located in the shift selector.

The transmission gear ratios shall be:

1st	3.51:1
2nd	1.91:1
3rd	1.43:1
4th	1.00:1
5th	0.74:1
6th	0.64:1 (if applicable)
Rev	4.80:1

1806-001

TRANSMISSION MODE PROGRAMMING

The transmission, upon start-up, will automatically select a four (4) speed operation. The fifth speed over drive shall be available with the activation of the mode button on the shifting pad.

1811-004

TRANSMISSION FEATURE PROGRAMMING

The Allison Gen V/VI-E transmission EVS group package number 127 shall contain the 198 vocational package in consideration of the duty of this apparatus as a pumper. This package shall incorporate an automatic neutral with selector override. This feature commands the transmission to neutral when the park brake is applied, regardless of drive range requested on the shift selector. This requires re-selecting drive range to shift out of neutral for the override.

This package shall be coupled with the use of a split shaft PTO and incorporate pumping circuits. These circuits shall be used allowing the vehicle to operate in the fourth range lockup while operating the pump mode due to the 1 to 1 ratio through the transmission, therefore the output speed of the engine is the input speed to the pump. The pump output can be easily calculated by using this input speed and the drive ratio of the pump itself to rate the gallons of water the pump can provide.

A transmission interface connector shall be provided in the cab. This package shall contain the following input/output circuits to the transmission control module. The Gen V/VI-E transmission shall include prognostic diagnostic capabilities. These capabilities shall include the monitoring of the fluid life, filter change indication, and transmission clutch maintenance.

<u>Function ID</u>	<u>Description</u>	<u>Wire assignment</u>
Inputs		
C	PTO Request	142
J	Fire Truck Pump Mode (4th Lockup)	122 / 123
Outputs		
C	Range Indicator	145 (4th)
G	PTO Enable Output	130
	Signal Return	103

1807-005

TRANSMISSION SHIFT SELECTOR

An Allison pressure sensitive range selector touch pad shall be provided and located to the right of the driver within clear view and easy reach. The shift selector shall have a graphical Vacuum Florescent Display (VFD) capable of displaying two lines of text. The shift selector shall provide mode indication and a prognostic indicator (wrench symbol) on the digital display. The prognostics monitor various operating parameters and shall alert you when a specific maintenance function is required.

1815-002

ELECTRONIC TRANSMISSION OIL LEVEL INDICATOR

The transmission fluid shall be monitored electronically and shall send a signal to activate a warning in the instrument panel when levels fall below normal.

1812-004

TRANSMISSION RETARDER CONTROL

The Allison transmission retarder shall be engaged with the first one-third at 0% throttle and the remaining two-thirds shall be modulated by brake pedal actuation. The system shall include a retarder on/off virtual button on the Vista display and control screen. The engagement of the retarder shall activate the brake lights. The retarder shall be inactive during pump mode.

1816-004

TRANSMISSION RETARDER CAPACITY LEVEL

The transmission retarder shall be programmed so the maximum retardation shall be at the high capacity level.

1814-002

TRANSMISSION PRE-SELECT WITH AUXILIARY BRAKE

When the auxiliary brake is engaged, the transmission shall automatically shift to second gear to decrease the rate of speed assisting the secondary braking system and slowing the vehicle.

1808-007

TRANSMISSION COOLING SYSTEM

The transmission shall include a water to oil cooler system located in the cooling loop between the radiator and the engine. The transmission cooling system shall meet all transmission manufacturer requirements. The transmission cooling system shall feature continuous flow of engine bypass water to maintain uninterrupted transmission cooling.

1817-001

TRANSMISSION DRAIN PLUG

The transmission shall include an original equipment manufacturer installed magnetic transmission fluid drain plug.

8005-001

TRANSMISSION WARRANTY

The Allison EVS series transmission shall be warranted for a period of five (5) years with unlimited mileage. Parts and labor shall be included in the warranty.

2004-004

LH PTO

A PTO shall be installed on the transmission by the OEM.

2001-109

LH PTO MODEL

A ten (10) bolt Chelsea model 280-GGFJP-B5XD heavy duty transmission driven PTO shall be installed. The clutched shifted PTO is designed specifically for the Allison world transmission and provides an intermittent and continuous torque rating of 360 lb. ft.

2005-008

PTO LOCATION

The transmission shall have two (2) power take off (PTO) mounting locations, one (1) in the 8:00 o'clock position and one (1) in the 1:00 o'clock position.

2015-030

LH PTO CONTROL

Switches for the power take off shall be wired to the V-mux node to be used by the OEM. There shall be an on/off rocker switch labeled "Aerial Master" wired to a V-mux input and output with integral light wired to the v-mux input terminal of the switch that shall illuminate when the switch is on and the v-mux output is active.

There shall be an on/off rocker switch labeled "Aerial PTO" activated by the "Aerial Master" rocker switch with an input to the V-mux node when the switch is on and an integral light activated by an independent V-mux output. The switches shall be located on dash.

3001-017

DRIVELINE

All drivelines shall be heavy duty metal tube and equipped with MSI 1810 series universal joints for the main drivelines, and 1710 series for the inter-axle shaft. The shafts shall be dynamically balanced prior to installation to alleviate future vibration. In areas of the driveline where a slip shaft is required, the splined slip joint shall be coated with Glide Coat®. The drivelines shall include Meritor brand u-joints with thrust washers.

3005-074

MIDSHIP PUMP / GEARBOX

A temporary jackshaft driveline shall be installed by the chassis manufacturer to accommodate the midship split shaft pump as specified by the apparatus manufacturer. Holes shall be provided in the frame as specified by the OEM for mounting a Smeal aerial pump module.

See PDF for specific hole pattern.

3008-085

MIDSHIP PUMP / GEARBOX MODEL

The midship pump/gearbox provisions shall be for a Waterous CSUC20 pump.

3048-006

MIDSHIP PUMP GEARBOX DROP

The Waterous pump gearbox shall have a "B" (short) drop length.

3009-007

MIDSHIP PUMP RATIO

The ratio for the midship pump shall be 2.27:1.

3010-1140

MIDSHIP PUMP LOCATION C/L SUCTION TO C/L REAR AXLE

The midship pump shall be located so the dimension from the centerline of the suction to the centerline of the rear axle is 114.00 inches.

5013-005

PUMP SHIFT CONTROLS

One (1) electric over air pump shift control panel shall be located in the left hand side knee area below the dash. The following shall be provided on the panel: a three (3) position locking toggle switch; an engraved PUMP ENGAGED identification light; and an engraved OK TO PUMP identification light. The pump shift control panel shall be black with a yellow border outline and shall include pump instructions. An instruction plate describing the transmission shift selector position used for pumping shall be provided and located so it can be read from the driver's position per NFPA **16.10.1.3**. The pump mode shall be selected when the switch is in the up position and road mode shall be selected when the switch is in the down position.

The center switch position shall exhaust air from both pump and road sides of the pump gear box shift cylinder.

3049-003

PUMP SHIFT CONTROL PLUMBING

Air connections shall be provided from the air supply tank to the pump shift control valve and from the pump shift control valve to the frame mounted bracket. The frame mounted bracket shall include labeling identifying the pump and road connection points with threaded 0.25 inch NPT fittings on the solenoid for attaching the customer installed pump. The air supply shall be pressure protected from service brake system.

3109-064

FUEL FILTER/WATER SEPARATOR

The fuel system shall have a Racor GreenMAX 6600R fuel filter/water separator as a primary filter. The fuel filter shall have a drain valve and a see-through cover to allow visual inspection of fuel and filter condition. The Racor 6600R shall meet engine requirements for particulate size, collection capacity, removal efficiency, and water removal efficiency. The filter shall be capable of handling a maximum flow rate of 150 gallons per hour.

A secondary fuel filter shall be included as approved by the engine manufacturer.

An instrument panel lamp and audible alarm which indicates when water is present in the fuel-water separator shall also be included.

3111-002

FUEL LINES

The fuel system supply and return lines installed from the fuel tank to the engine shall be black textile braided lines which are reinforced with braided high tensile steel wire. The fuel lines shall be connected with reusable steel fittings.

3103-008

ELECTRIC FUEL PRIMER

Integral to the engine assembly is an electric lift pump that serves the purpose of pre-filter fuel priming.

3112-013

FUEL COOLER

An aluminum cross flow air to fuel cooler shall be provided to lower fuel temperature allowing the vehicle to operate at higher ambient temperatures. The fuel cooler shall be located behind the rear axle.

3101-102

FUEL TANK

The fuel tank shall have a capacity of sixty-eight (68) gallons and shall measure 35.00 inches in width X 17.00 inches in height X 29.00 inches in length.

The baffled tank shall have a vent port to facilitate venting to the top of the fill neck for rapid filling without "blow-back" and a roll over ball check vent for temperature related fuel expansion and draw.

The tank is designed with dual draw tubes and sender flanges. The tank shall have 2.00 inch NPT fill ports for right or left hand fill. A 0.50 inch NPT drain plug shall be centered in the bottom of the tank.

The fuel tank shall be mounted below the frame, behind the rear axle. Two (2) three-piece strap hanger assemblies with "U" straps bolted midway on the fuel tank front and rear shall be utilized to allow the tank to be easily lowered and removed for service purposes. Rubber isolating pads shall be provided between the tank and the upper tank mounting brackets. Strap mounting studs through the rail, hidden behind the body shall not be acceptable.

3130-001

FUEL TANK MATERIAL AND FINISH

The fuel tank shall be constructed of 12 gauge aluminized steel. The exterior of the tank shall be powder coated black and then painted to match the frame components.

All powder coatings, primers and paint shall be compatible with all metals, pretreatments and primers used. The cross hatch adhesion test per ASTM D3359 Method B, results to be 5B minimum. The pencil hardness test per ASTM D3363 shall have a final post-cured pencil hardness of H-2H. The direct impact resistance test per ASTM D2794, results to be 5B minimum.

Any proposals offering painted fuel tanks with variations from the above process shall not be accepted. The film thickness of vendor supplied parts shall also be sufficient to meet the performance standards as stated above.

3131-001

FUEL TANK STRAP MATERIAL

The fuel tank straps shall be constructed of ASTM A-36 steel. The fuel tank straps shall be powder coated black and then painted to match the frame components if possible.

3132-011

FUEL TANK MISCELLANEOUS OPTIONS

The fuel tank shall be temporarily mounted, to be permanently relocated by the OEM. The tank and mounting straps as specified shall be included with the chassis along with components for permanent standard installation.

3102-016

FUEL TANK FILL PORT

The fuel tank fill ports shall be provided with two (2) left fill ports located one (1) in the forward position and one (1) in the middle position and the right fill port located in the middle position of the fuel tank.

3114-006

FUEL TANK SERVICEABILITY PROVISIONS

The chassis fuel lines and sender wiring shall have additional length provided so the tank can be easily lowered and removed for service purposes. The additional 12.00 feet of length shall be located above the fuel tank and shall be coiled and secured. The fuel line fittings shall be pointed towards the right side (curbside) of the chassis.

3115-002

FUEL TANK DRAIN PLUG

A 0.5 inch NPT magnetic drain plug shall be centered in the bottom of the fuel tank.

2401-022

FRONT AXLE

The front axle shall be a Meritor Easy Steer Non drive front axle, model number MFS-20. The axle shall include a 3.74 inch drop and a 71.00 inch king pin intersection (KPI). The axle shall include a conventional style hub with a standard knuckle. The weight capacity for the axle shall be rated to 23,000 pounds. This rating shall require special approvals from the wheel manufacturers.

2405-001

FRONT WHEEL BEARING LUBRICATION

The front axle wheel bearings shall be lubricated with oil. The oil level can be visually checked via clear inspection windows in the front axle hubs.

2502-002

FRONT SHOCK ABSORBERS

Two (2) Bilstein inert, nitrogen gas filled shock absorbers shall be provided and installed as part of the front suspension system. The shocks shall be a monotubular design and fabricated using a special extrusion method, utilizing a single blank of steel without a welded seam, achieving an extremely tight peak-to-valley tolerance and maintains consistent wall thickness. The monotubular design shall provide superior strength while maximizing heat dissipation and shock life.

The ride afforded through the use of a gas shock is more consistent and shall not deteriorate with heat, the same way a conventional oil filled hydraulic shock would.

The Bilstein front shocks shall include a digressive working piston assembly allowing independent tuning of the compression and rebound damping forces to provide optimum ride and comfort without compromise. The working piston design shall feature fewer parts than most conventional twin tube and “road sensing” shock designs and shall contribute to the durability and long life of the Bilstein shock absorbers.

Proposals offering the use of conventional twin tube or “road sensing” designed shocks shall not be considered.

2501-018

FRONT SUSPENSION

The front suspension shall include an eleven (11) leaf spring pack in which the longest leaf measures 53.38 inch long and 4.00 inches wide. The springs shall be shot peened for long life and include a military double wrapped front eye. The springs shall be bolted in place with M20 10.9 bolts and have replaceable polyurethane bushings in the spring eyes. The spring capacity shall be rated at 23,000 pounds.

2601-006

STEERING COLUMN/ WHEEL

The cab shall include a Douglas Autotech steering column which shall include a seven (7) position tilt, a 2.25 inch telescopic adjustment, and an 18.00 inch, four (4) spoke steering wheel located at the driver’s position. The steering wheel shall be covered with black polyurethane foam padding.

The steering column shall contain a horn button, self-canceling turn signal switch, four-way hazard switch and headlamp dimmer switch.

2609-002

ELECTRONIC POWER STEERING FLUID LEVEL INDICATOR

The power steering fluid shall be monitored electronically and shall send a signal to activate an audible alarm and visual warning in the instrument panel when fluid level falls below normal.

2603-011

POWER STEERING PUMP

The hydraulic power steering pump shall be a TRW PS and shall be gear driven from the engine. The pump shall be a balanced, positive displacement, sliding vane type. The power steering system shall include an oil to air passive cooler.

2606-009

FRONT AXLE CRAMP ANGLE

The chassis shall have a front axle cramp angle of 48-degrees to the left and 44-degrees to the right.

2610-005

POWER STEERING GEAR

The power steering gear shall be a TRW model TAS 85 with an assist cylinder.

2608-001

CHASSIS ALIGNMENT

The chassis frame rails shall be measured to insure the length is correct and cross checked to make sure they run parallel and are square to each other. The front and rear axles shall be laser aligned. The front tires and wheels shall be aligned and toe-in set on the front tires by the chassis manufacturer.

3401-012

REAR AXLE

The rear axle shall be a Meritor model RT-52-185 tandem drive axle. The axle shall include precision forged, single reduction differential gearing, and shall have a fire service rated capacity of 54,000 pounds.

The axle shall be built of superior construction and quality components to provide the rugged dependability needed to stand up to the fire industry's demands. The axle shall include rectangular shaped, hot-formed housing with a standard wall thickness of 0.56 of an inch for extra strength and rigidity and a rigid differential case for high axle strength and reduced maintenance.

The axle shall have heavy-duty Hypoid gearing for longer life, greater strength and quieter operation. Industry-standard wheel ends for compatibility with both disc and drum brakes, and unitized oil seal technology to keep lubricant in and help prevent contaminant damage will be used.

3403-001

REAR AXLE DIFFERENTIAL LUBRICATION

The rear axle differential shall be lubricated with oil.

3411-001

REAR WHEEL BEARING LUBRICATION

The rear axle wheel bearings shall be lubricated with oil.

3407-003

REAR AXLE DIFFERENTIAL CONTROL

The tandem axle chassis shall include an inter-axle differential lock, which shall allow both axles to be engaged as drive axles. The inter-axle differential lock shall be controlled by a locking rocker switch on the switch panel. The light on the switch shall illuminate with positive engagement of the inter-axle differential lock.

3408-003

VEHICLE TOP SPEED

The top speed of the vehicle shall be approximately 60 MPH +/-2 MPH at governed engine RPM.

3501-035

REAR SUSPENSION

The tandem rear axle shall feature a Hendrickson Firemaax™ air suspension. Each axle will be independently suspended for optimum performance. The suspension shall include four optimized air

springs mounted to cast structural trailing arms, transverse cross beams for increased roll stability and four heavy duty shock absorbers. Dual air height control valves shall be installed on each axle to ensure equal frame height on both sides of the vehicle regardless of the load. Axle alignment is maintained using four eccentric bushings at each frame bracket. The rear tandem suspension shall have 54.00 inch axle centers.

The rear suspension capacity shall be rated at 48,001 to 54,000 pounds

3503-003

REAR SHOCK ABSORBERS

Shock absorbers shall be supplied by the suspension manufacturer and installed on the rear axle suspension.

3625-002

TIRE INTERMITTENT SERVICE RATING

The chassis shall be rated using Intermittent Service ratings provided to the emergency vehicle market by the tire manufacturers as the basis for determining the maximum vehicle load and speed.

3601-063

FRONT TIRE

The front tires shall be Michelin 425/65R-22.5 20PR "L" tubeless radial XZY3 mixed service tread.

The front tire stamped load capacity shall be 22,800 pounds per axle with a nominal speed rating of 65 miles per hour when properly inflated to 120 pounds per square inch.

The Michelin Intermittent Service Rating maximum load capacity shall be 24,396 pounds per axle with a maximum speed of 65 miles per hour when properly inflated to 120 pounds per square inch.

The Michelin Intermittent Service Rating maximum speed capacity shall be 22,800 pounds per axle with a speed rating of 75 miles per hour when properly inflated to 120 pounds per square inch.

The Michelin Intermittent Service Rating limits the operation of the emergency vehicle to no more than fifty (50) miles of continuous operation under maximum recommended payload, or without stopping for at least twenty (20) minutes. The emergency vehicle must reduce its speed to no more than 50 MPH after the first fifty (50) miles of travel.

3602-010

REAR TIRE

The rear tires shall be Michelin 12R-22.5 16PR "H" tubeless radial XZE regional tread.

The rear tire stamped load capacity shall be 27,120 pounds per axle with a speed rating of 75 miles per hour when properly inflated to 120 pounds per square inch.

The Michelin Tire Intermittent Service Rating load capacity shall be 28,880 pounds per axle with a speed rating of 75 miles per hour when properly inflated to 120 pounds per square inch. The Michelin Intermittent Service Rating limits the operation of the emergency vehicle to one (1) hour of loaded travel with a one (1) hour cool down prior to another loaded run.

3413-538

REAR AXLE RATIO

The rear axle ratio shall be 5.38:1.

3614-030

TIRE PRESSURE INDICATOR

There shall be electronic chrome LED valve caps shipped loose for installation by the OEM which shall illuminate with a red LED when tire pressure drops 8psi provided. The valve caps are self-calibrating and set to the pressure of the tire upon installation.

3701-034

FRONT WHEEL

The front wheels shall be Alcoa hub piloted, 22.50 inch X 12.25 inch aluminum wheels. The outer face of the wheels shall feature Alcoa's Dura-Bright® finish as an integral part of the wheel surface. Alcoa Dura-Bright® wheels keep their shine without polishing. Brake dust, grime and road debris are easily removed by simply cleaning the wheels with soap and water. The hub piloted mounting system shall provide easy installation and shall include two-piece flange nuts.

3703-062

REAR WHEEL

The rear wheels shall be Alcoa hub piloted, 22.50 inch X 8.25 inch aluminum wheels with a polished outer surface and Alcoa Dura-Bright® wheel treatment as an integral part of the wheel surface. The inner rear wheels shall be Alcoa hub piloted, 22.50 inch X 8.25 inch aluminum wheels with a bright machine finish. The hub piloted mounting system shall provide easy installation and shall include two-piece flange nuts.

3702-018

WHEEL TRIM

The front wheels shall include two (2) sets of stainless steel lug nut covers and stainless steel baby moons shipped loose with the chassis for installation by the apparatus builder. The baby moons shall have cutouts for oil seal viewing when applicable.

The rear wheels shall include two (2) sets of stainless steel lug nut covers and band mounted spring clip stainless steel high hats shipped loose with the chassis for installation by the apparatus builder.

The lug nut covers, baby moons, and high hats shall be RealWheels® brand constructed of 304L grade, non-corrosive stainless steel with a mirror finish. Each wheel trim component shall meet D.O.T. certification.

3205-015

BRAKE SYSTEM

A rapid build-up air brake system shall be provided. The air brakes shall include, at a minimum, a three (3) air tank, four (4) reservoir system with a total of 6236 cubic inch of air capacity. A floor mounted treadle valve shall be mounted inside the cab for graduated control of applying and releasing the brakes.

An inversion valve shall be installed to provide a service brake application in the unlikely event of primary air supply loss. All air reservoirs provided on the chassis shall be labeled for identification.

The tandem rear axle spring brakes shall automatically apply in any situation when the air pressure falls below 25 PSI and shall include a mechanical means for releasing the spring brakes when necessary. An audible alarm shall designate when the system air pressure is below 60 PSI.

A six (6) sensor, six (6) modulator Anti-lock Braking System (ABS) shall be installed on the front and tandem rear axles in order to prevent the brakes from locking or skidding while braking during hard stops or on icy or wet surfaces. This in turn shall allow the driver to maintain steering control under heavy braking and in most instances, shorten the braking distance. The electronic monitoring system shall incorporate diagonal circuitry which shall monitor wheel speed during braking through a sensor and tone ring on each wheel. A dash mounted ABS lamp shall be provided to notify the driver of a system malfunction. The ABS system shall automatically disengage the auxiliary braking system device when required. The speedometer screen shall be capable of reporting all active defaults using PID/SID and FMI standards.

Additional safety shall be accommodated through Automatic Traction Control (ATC) which shall be installed on the tandem rear axle. The ATC system shall apply the ABS when the drive wheels lose traction. The system shall scale the electronic engine throttle back to prevent wheel spin while accelerating on ice or wet surfaces.

A virtual style switch shall be provided and properly labeled "mud/snow". When the switch is pressed once, the system shall allow a momentary wheel slip to obtain traction under extreme mud and snow conditions. During this condition the ATC light shall blink continuously notifying the driver of activation. Pressing the switch again shall deactivate the mud/snow feature.

The Electronic Stability Control (ESC) unit is a functional extension of the electronic braking system. It is able to detect any skidding of the vehicle about its vertical axis as well as any rollover tendency. The control unit comprises an angular-speed sensor that measures the vehicle's motion about the vertical axis, caused, for instance, by cornering or by skidding on a slippery road surface. An acceleration sensor measures the vehicle's lateral acceleration. The Controller Area Network (CAN) bus provides information on the steering angle. On the basis of lateral acceleration and steering angle, an integrated microcontroller calculates a theoretical angular speed for the stable vehicle condition.

3206-003

FRONT BRAKES

The front brakes shall be Meritor EX225 Disc Plus disc brakes with 17.00 inch vented rotors.

3207-005

REAR BRAKES

The rear brakes shall be Meritor 16.50 inch X 7.00 inch S-cam drum type. The brakes shall feature a cast iron shoe.

3208-001

PARK BRAKE

Upon application of the push-pull valve in the cab, the rear brakes will engage via mechanical spring force. This is accomplished by dual chamber rear brakes, satisfying the FMVSS parking brake requirements.

3219-002

SUPPLEMENTAL BRAKE

A supplemental brake engagement shall be supplied that can only be engaged while the rear spring brakes are engaged. In addition to the mechanical rear brake engagement, the front service brakes shall also be engaged via air pressure, providing additional braking capability. Front service brake activation shall be accomplished with activation of the rear mechanical park brake valve.

3204-029

PARK BRAKE CONTROL

A Meritor-Wabco manual hand control push-pull style valve shall operate the parking brake.

The parking brake actuation valve shall be mounted to the left side of the engine tunnel integrated into the transmission shift pod console within easy access of the driver.

3214-002

REAR BRAKE SLACK ADJUSTERS

Haldex rear brake automatic slack adjusters shall be installed on the axle.

3202-001

AIR DRYER

The brake system shall include a Wabco System Saver 1200 air dryer with an integral 100 watt heater with a Metri-Pack sealed connector. The air dryer incorporates an internal turbo cutoff valve that closes the path between the air compressor and air dryer purge valve during the compressor "unload" cycle. The turbo cutoff valve allows purging of moisture and contaminants without the loss of turbo boost pressure. The air dryer shall be located on the right hand frame rail forward of the front wheel behind the right hand cab step.

3215-004

FRONT BRAKE CHAMBERS

The front brakes shall be provided with MGM type 24 long stroke brake chambers.

3210-015

REAR BRAKE CHAMBERS

The rear axle shall include TSE 30/36 brake chambers which shall convert the energy of compressed air into mechanical force and motion. This shall actuate the brake camshaft, which in turn shall operate the foundational brake mechanism forcing the brake shoes against the brake drum. The TSE Type 36 brake chamber has a 36.00 square inch effective area.

3320-001

AIR COMPRESSOR

The air compressor provided for the engine shall be a Wabco® SS318 single cylinder pass-through drive type compressor which shall be capable of producing 18.7 CFM at 1200 engine RPMs. The air

compressor shall feature a higher delivery efficiency translating to more air delivery per horsepower absorbed. The compressor shall include an aluminum cylinder head which shall improve cooling, reduce weight and decrease carbon formation. Superior piston and bore finishing technology shall reduce oil consumption and significantly increasing the system component life.

3339-004

AIR GOVERNOR

An air governor shall be provided to control the cut-in and cut-out pressures of the engine mounted air compressor. The governor shall be calibrated to meet FMVSS requirements. The air governor shall be located on the air dryer bracket.

3303-002

MOISTURE EJECTORS

Manual cable actuated drain valves shall be installed on all reservoirs of the air supply system. The actuation pull cables shall be coiled and tied at each drain valve. The supplied cables when extended shall be sufficient in length to allow each drain to be activated from the side of the apparatus.

3307-001

AIR SUPPLY LINES

The air system on the chassis shall be plumbed with color coded reinforced nylon tubing air lines. The primary (rear) brake line shall be green, the secondary (front) brake line red, the parking brake line orange and the auxiliary (outlet) will be blue.

Brass compression type fittings shall be used on the nylon tubing. All drop hoses shall include fiber reinforced neoprene covered hoses.

3338-002

REAR AIR TANK MOUNTING

If a combination of wheel base, air tank quantity, or other requirements necessitate the location of one or more air tanks to be mounted rear of the fuel tank, these tank(s) will be mounted perpendicular to frame.

2103-2280

WHEELBASE

The chassis wheelbase shall be 228.00 inches.

2106-0640

REAR OVERHANG

The chassis rear overhang shall be 64.00 inches.

2101-002

FRAME

The frame shall consist of double rails running parallel to each other with cross members forming a ladder style frame. The frame rails shall be formed in the shape of a "C" channel, with the outer rail measuring 10.25 inches high X 3.50 inches deep upper and lower flanges X 0.38 inches thick with an inner channel of 9.44 inches high X 3.13 inches deep and 0.38 inches thick. Each rail shall be constructed of 110,000 psi minimum yield high strength low alloy steel. Each double rail section shall

be rated by a Resistance Bending Moment (RBM) minimum of 3,213,100 inch pounds and have a minimum section modulus of 29.21 cubic inches. The frame shall measure 35.00 inches in width.

Proposals calculating the frame strength using the “box method” shall not be considered.

Proposals including heat treated rails shall not be considered. Heat treating frame rails produces rails that are not uniform in their mechanical properties throughout the length of the rail. Rails made of high strength, low alloy steel are already at the required yield strength prior to forming the rail.

A minimum of seven (7) fully gusseted 0.25 inch thick cross members shall be installed. The inclusion of the body mounting, or bumper mounting shall not be considered as a cross member. The cross members shall be attached using zinc coated grade 8 fasteners. The bolt heads shall be flanged type, held in place by distorted thread flanged lock nuts. Each cross member shall be mounted to the frame rails utilizing a minimum of 0.25 inch thick gusset reinforcement plates at all corners balancing the area of force throughout the entire frame.

Any proposals not including additional reinforcement for each cross member shall not be considered.

All relief areas shall be cut in with a minimum 2.00 inch radius at intersection points with the edges ground to a smooth finish to prevent a stress concentration point.

2111-136

MISCELLANEOUS FRAME OPTIONS

The frame shall include drillings which shall be specific to mounting a Smeal 105RM, 100RM, 125RM, or 100MM substructure.

See PDF for OEM Specified pattern.

2117-004

FRAME CLEAR AREA

The chassis frame shall be left clear of chassis mounted components inside or outside the frame rails within the first 30.00 inches behind the cab to allow space for OEM installed components. Cross members may be installed in the clear area if required for proper frame or driveline configuration.

2110-101

FRAME PAINT

The frame shall be powder coated black prior to any attachment of components.

All powder coatings, primers and paint shall be compatible with all metals, pretreatments and primers used. The cross hatch adhesion test per ASTM D3359 shall not have a fail of more than ten (10) squares. The pencil hardness test per ASTM D3363 shall have a final post-cured pencil hardness of H-2H. The direct impact resistance test per ASTM D2794 shall have an impact resistance of 120.00 inches per pound at 2 mils.

Any proposals offering painted frame with variations from the above process shall not be accepted. The film thickness of vendor supplied parts shall also be sufficient to meet the performance standards as stated above.

8007-036

FRAME ASSEMBLY STRUCTURAL

Purchaser shall receive a Frame Assembly Structural Fifty (50) Years or 250,000 Miles limited warranty in accordance with, and subject to, warranty certificate RFW0305. The warranty certificate is incorporated by reference into this proposal, and included with this proposal or available upon request.

8019-002

FRAME RAIL CORROSION

Purchaser shall receive a Frame Rail Corrosion (Powder Coat) Three (3) Years or 48,000 Miles limited warranty in accordance with, and subject to, warranty certificate RFW0311. The warranty certificate is incorporated by reference into this proposal, and included with this proposal or available upon request.

8022-004

FRAME COMPONENTS CORROSION

Purchaser shall receive a Frame Components Corrosion (Powder Coat) Three (3) Years or 48,000 Miles limited warranty in accordance with, and subject to, warranty certificate RFW0313. The warranty certificate is incorporated by reference into this proposal, and included with this proposal or available upon request.

2201-006

FRONT BUMPER

The chassis shall include a special approach style steel front bumper. The bumper shall be constructed of 0.19 inch thick ASTM A-36 formed steel which shall be painted. The bumper shall be 102.63 inches in width with angled corners. The bottom flange of the bumper shall be designed with a 20-degree angle to allow for an increased angle of approach for the vehicle.

2202-024

FRONT BUMPER EXTENSION LENGTH

The front bumper shall be extended approximately 12.50 inches ahead of the cab. The bumper extensions for bumper mounting shall include an angled bottom and designed for a 7.34 inches tall bumper face. Extensions shall be designed to mount to a standard front frame section.

2206-001

FRONT BUMPER PAINT

The front bumper shall be painted the same as the lower cab color.

2208-003

FRONT BUMPER APRON

The 12.50 inch extended front bumper shall include an apron constructed of 0.19 inch thick embossed aluminum tread plate.

The apron shall be installed between the bumper and the front face of the cab affixed using stainless steel bolts attaching the apron to the top bumper flange.

2237-004

FRONT BUMPER DISCHARGE

The chassis shall include frame mounted 2.00 inch diameter plumbed pipe intended for use as a discharge trash line. The discharge pipe shall be routed from the left hand front splay rail area behind the bumper to the area rear of the front axle, ahead of the battery box.

The discharge shall pipe shall be a, 2.00 inch stainless steel schedule 10 tube. The discharge shall include a Victaulic groove for connecting to the pump and discharge hose plumbing on each end of the tube.

The apparatus manufacturer shall plumb the discharge pipe to the pump and shall provide all valves as required.

2211-012

FRONT BUMPER COMPARTMENT CENTER

The front bumper shall include a compartment in the bumper apron located in the center between the frame rails which may be used as a hose well. The compartment shall be constructed of 0.19 thick ASTM A-36 painted steel.

5503-021

MECHANICAL SIREN

The front bumper shall include an electro mechanical Federal Q2B™ siren, which shall be streamlined, chrome-plated and shall produce 123 decibels of sound at 10.00 feet. The Q2B™ siren produces a distinctive warning sound that is recognizable at long distances. A unique clutch design provides a longer coast down sound while reducing the amp draw to 100 amps. The siren shall measure 10.50 inches wide X 10.00 inches high X 14.00 inches deep. The siren shall include mounting hardware designed to recess or flush mount.

2218-049

MECHANICAL SIREN LOCATION

The siren shall be recess mounted on the driver side of the front fascia of the bumper, in the extreme outboard position.

5501-020

AIR HORN

The front bumper shall include two (2) Hadley brand E-Tone air horns which shall measure 21.00 inches long with a 6.00 inch round flare. The air horns shall be trumpet style with a chrome finish on the exterior and a painted finish deep inside the trumpet.

2216-007

AIR HORN LOCATION

The air horns shall be recess mounted in the front bumper face on the right side of the bumper in the inboard and outboard positions relative to the right hand frame rail.

2232-002

AIR HORN RESERVOIR

One (1) air reservoir, with a 1200 cubic inch capacity, shall be installed on the chassis to act as a supply tank for operating air horns. The reservoir shall be isolated with a 90 PSI pressure protection valve on the reservoir supply side to prevent depletion of the air to the air brake system.

5504-060

ELECTRONIC SIREN SPEAKER

There shall be one (1) Federal Signal Inc. Dynamax® model ES100C, 100 watt speaker provided. The speaker shall measure 5.90 inches tall X 5.50 inches wide X 2.30 inches deep. The speaker shall include a Federal Signal “Electric F” style grille which shall measure 6.61 inches tall X 6.78 inches wide.

2217-003

ELECTRONIC SIREN SPEAKER LOCATION

The electronic siren speaker shall be located on the front bumper face on the left side outboard of the frame rail in the inboard position.

2204-006

FRONT BUMPER TOW EYES

The bumper shall include two (2) chrome plated tow eyes shall be installed through the front bumper. The eyes shall be fabricated from 0.75 inch thick #1020 ASTM-A36 hot rolled steel. The inside diameter of the eye shall be 2.00 inches and include inside/outside chamfered edges.

2301-001

CAB TILT SYSTEM

The entire cab shall be capable of tilting approximately 45-degrees to allow for easy maintenance of the engine and transmission. The cab tilt pump assembly shall be located on the right side of the chassis above the battery box.

The electric-over-hydraulic lift system shall include an ignition interlock and red cab lock down indicator lamp on the tilt control which shall illuminate when holding the “Down” button to indicate safe road operation.

It shall be necessary to activate the master battery switch and set the parking brake in order to tilt the cab. As a third precaution the ignition switch must be turned off to complete the cab tilt interlock safety circuit.

Two (2) spring-loaded hydraulic hold down hooks located outboard of the frame shall be installed to hold the cab securely to the frame. Once the hold-down hooks are set in place, it shall take the application of pressure from the hydraulic cab tilt lift pump to release the hooks.

Two (2) cab tilt cylinders shall be provided with velocity fuses in each cylinder port. The cab tilt pivots shall be 1.90 inch ball and be anchored to frame brackets with 1.25 inch diameter studs.

A steel safety channel assembly, painted safety yellow shall be installed on the right side cab lift cylinder to prevent accidental cab lowering. The safety channel assembly shall fall over the lift cylinder when the cab is in the fully tilted position. A cable release system shall also be provided to retract the safety channel assembly from the lift cylinder to allow the lowering of the cab.

2302-005

CAB TILT AUXILIARY PUMP

A manual cab tilt pump module shall be attached to the cab tilt pump housing.

2303-003

CAB TILT LIMIT SWITCH

A cab tilt limit switch shall be installed. The switch will effectively limit the travel of the cab when being tilted. The limit adjustment of the switch shall be preset by the chassis manufacturer to prevent damage to the cab or any bumper mounted option mounted in the cab tilt arc. Further adjustment to the limit by the apparatus manufacturer shall be available to accommodate additional equipment.

2305-001

CAB TILT CONTROL RECEPTACLE

The cab tilt control cable shall include a receptacle which shall be temporarily located on the right hand chassis rail rear of the cab to provide a place to plug in the cab tilt remote control pendant. The tilt pump shall include 8.00 feet of cable with a six (6) pin Deutsch receptacle with a cap.

The remote control pendant shall include 20.00 feet of cable with a mating Deutsch connector. The remote control pendant shall be shipped loose with the chassis.

2306-002

CAB TILT LOCK DOWN INDICATOR

The cab dash shall include a message located within the dual air pressure gauge which shall alert the driver when the cab is unlocked and ajar. The alert message shall cease to be displayed when the cab is in the fully lowered position and the hold down hooks are secured and locked to the cab mounts.

In addition to the alert message an audible alarm shall sound when the cab is unlocked and ajar and the parking brake is released.

1401-009

CAB WINDSHIELD

The cab windshield shall have a surface area of 2969.88 square inches and be of a two (2) piece wraparound design for maximum visibility.

The glass utilized for the windshield shall include standard automotive tint. The left and right windshield shall be fully interchangeable thereby minimizing stocking and replacement costs.

Each windshield shall be installed using black self locking window rubber.

1402-005

GLASS FRONT DOOR

The front cab doors shall include a window which is 27.00 inches in width X 26.00 inches in height. These windows shall have the capability to roll down completely into the door housing. This shall be accomplished manually utilizing a crank style handle on the inside of the door. A reinforced window regulator assembly shall be provided for severe duty use.

There shall be an irregular shaped fixed window which shall measure 2.50 inches wide at the top, 8.00 inches wide at the bottom X 26.00 inches in height, more commonly known as “cozy glass” ahead of the front door roll down windows.

The windows shall be mounted within the frame of the front doors trimmed with a black anodized ring on the exterior.

1407-001

GLASS TINT FRONT DOOR

The windows located in the left and right front doors shall have a standard green automotive tint which shall allow seventy-five percent (75%) light transmittance.

1419-012

GLASS REAR DOOR RH

The rear right hand side door shall include a window which is 27.00 inches in width X 26.00 inches in height. This window shall roll up and down manually utilizing a crank style handle on the inside of the door. A reinforced window regulator assembly shall be provided for severe duty use.

1430-001

GLASS TINT REAR DOOR RIGHT HAND

The window located in the right hand side rear door shall include a standard green automotive tint which shall allow seventy-five percent (75%) light transmittance.

1412-013

GLASS REAR DOOR LH

The rear left hand side door shall include a window which is 27.00 inches in width X 26.00 inches in height. This window shall roll up and down manually utilizing a crank style handle on the inside of the door. A reinforced window regulator assembly shall be provided for severe duty use.

1431-001

GLASS TINT REAR DOOR LEFT HAND

The window located in the left hand side rear door shall include a standard green automotive tint which shall allow seventy-five percent (75%) light transmittance.

1410-010

GLASS SIDE MID RH

The cab shall include a window on the right side behind the front and ahead of the crew doors which shall measure 16.00 inches wide X 12.00 inches high. This window shall be fixed within this space and shall be rectangular in shape. The window shall be mounted using self-locking window rubber. The glass utilized for this window shall include a green automotive tint unless otherwise noted.

1432-001

GLASS TINT SIDE MID RIGHT HAND

The window located on the right hand side of the cab between the front and rear doors shall include a standard green automotive tint which shall allow seventy-five percent (75%) light transmittance.

1409-010

GLASS SIDE MID LH

The cab shall include a window on the left side behind the front door and ahead of the crew door and above the wheel well which shall measure 16.00 inches wide X 12.00 inches high. This window shall be fixed within this space and shall be rectangular in shape. The window shall be mounted using self-locking window rubber. The glass utilized for this window shall include a green automotive tint unless otherwise noted.

1433-001

GLASS TINT SIDE MID LEFT HAND

The window located on the left hand side of the cab between the front and rear doors shall include a standard green automotive tint which shall allow seventy-five percent (75%) light transmittance.

1614-115

CLIMATE CONTROL

The cab shall include a front under dash heater/defroster.

The cab shall also include a combination heater air-conditioning unit mounted on the engine tunnel. This unit shall offer eight (8) adjustable louvers, four (4) forward facing and four (4) rearward facing, a temperature control valve and two (2) blowers offering three (3) speeds which shall be capable of circulating 550 cubic feet of air per minute. The unit shall be rated for 42,500 BTU/Hr of cooling and 36,000 BTU/Hr of heating.

All defrost/heating systems shall be plumbed with one (1) seasonal shut-off valve at the front corner on the right side of the cab.

The air conditioner lines shall be a mixture of custom bend zinc coated steel fittings and Aeroquip flexible hose with Aeroquip EZ clip fittings.

1632-002

CLIMATE CONTROL DRAIN

The climate control system shall include a gravity drain for water management. The gravity drain shall remove condensation from the air conditioning system without additional mechanical assistance.

1617-113

CLIMATE CONTROL ACTIVATION

The defrosting controls shall be located on the lower left portion of the center dash panel, within easy reach of the driver. There shall be additional heating and air conditioning controls located on the engine tunnel mounted climate control unit.

1603-002

A/C CONDENSER LOCATION

A roof mounted A/C condenser shall be installed on the left side of the cab, mid-roof.

1601-001

A/C COMPRESSOR

The air-conditioning compressor shall be a belt driven, engine mounted, open type compressor that shall be capable of producing a minimum of 32,000 BTU at 1500 engine RPMs. The compressor shall utilize R-134A refrigerant and PAG oil.

1530-103

UNDER CAB INSULATION

The underside of the cab tunnel surrounding the engine shall be lined with multi-layer insulation, engineered for application inside diesel engine compartments.

The insulation shall act as a noise barrier, absorbing noise thus keeping the decibel level in the cab well within NFPA recommendations. As an additional benefit, the insulation shall assist in sustaining the desired temperature within the cab interior.

The engine tunnel insulation shall measure approximately 0.30 inch thick including a multi-layer foil faced glass cloth and polyester fiber layer. The foil surface acts as protection against heat, moisture and other contaminants. The insulation shall meet or exceed FMVSS 302 flammability test.

The insulation shall be cut precisely to fit each section and sealed for additional heat and sound deflection. The insulation shall be held in place by acrylic pressure sensitive adhesive. In addition, the insulation shall have a removable aluminum overlay installed to protect the insulation and assist in retaining the insulation tight against the engine tunnel surfaces.

1327-001

INTERIOR TRIM FLOOR

The floor of the cab shall be covered with a multi-layer mat consisting of 0.25 inch thick sound absorbing closed cell foam with a 0.06 inch thick non-slip vinyl surface with a pebble grain finish. The covering shall be held in place by a pressure sensitive adhesive and aluminum trim molding. All exposed seams shall be sealed with silicone caulk matching the color of the floor mat to reduce the chance of moisture and debris retention.

1302-001

INTERIOR TRIM

The cab interior shall include trim on the front ceiling, rear crew ceiling, and the cab walls. It shall be easily removable to assist in maintenance. The trim shall be constructed of insulated vinyl over a hard board backing.

1368-002

REAR WALL INTERIOR TRIM

The rear wall of the cab shall be trimmed with vinyl.

1306-006

HEADER TRIM

The cab interior shall feature header trim over the driver and officer dash constructed of 5052-H32 Marine Grade, 0.13 inch thick aluminum.

1305-020

TRIM CENTER DASH

The main center dash area shall be constructed of 5052-H32 Marine Grade, 0.13 inch thick aluminum plate and include provisions for the front under dash heater defroster. There shall be four (4) holes located on the top of the dash near each outer edge of the electrical access cover for ventilation.

1339-104

TRIM LH DASH

The left hand dash shall be constructed of 5052-H32 Marine Grade, 0.13 inch thick aluminum plate for a perfect fit around the instrument panel. For increased occupant protection the extreme duty left hand dash utilizes patent pending break away technology to reduce rigidity in the event of a frontal crash. The left hand dash shall offer lower vertical surface area to the left and right of the steering column to accommodate control panels. The left hand dash shall also include provisions for the front under dash heater defroster.

1321-021

TRIM RH DASH

The right hand dash trim shall be constructed of 5052-H32 Marine Grade, 0.13 of an inch thick aluminum plate and shall include provisions for the front under dash heater defroster.

1307-002

ENGINE TUNNEL TRIM

The cab engine tunnel shall be covered with a multi-layer mat consisting of 0.25 inch closed cell foam with a 0.06 inch thick non-slip vinyl surface with a pebble grain finish. The mat shall be held in place by pressure sensitive adhesive. The engine tunnel mat shall be trimmed with anodized aluminum stair nosing trim for an aesthetically pleasing appearance.

5040-116

POWER POINT DASH MOUNT

The cab shall include four (4) 12 volt cigarette lighter type receptacles in the cab dash to provide a power source for 12 volt electrical equipment. The cab shall also include two (2) universal serial bus (USB) charging receptacles in the cab dash to provide a power source for USB chargeable electrical equipment. Each USB port shall be capable of a 12 watt, 2.4 amp fast charge output. The receptacles shall be wired battery direct.

1303-038

STEP TRIM

Each cab entry door shall include a three step entry. The first step closest to the ground shall be constructed of SAE 304 stainless steel with embossed perforations and diamond shaped cutout. The perforations and cutouts shall allow water and other debris to flow through rather than becoming trapped within the stepping surface. The step shall feature a splash guard to reduce water and debris from splashing in to the step. The splash guard shall have drainage holes beneath the back of the step to allow debris and water to flow through rather than becoming trapped within the stepping surface. The stainless steel material shall have a number 8 mirror finish. The lower step shall be mounted to a frame which is integral with the construction of the cab for rigidity and strength. The middle step shall be integral with the cab construction and shall be trimmed with a Flex-Tred® adhesive grit surface material.

1379-003

UNDER CAB ACCESS DOOR

The cab shall include an aluminum access door in the left crew step riser painted to match the cab interior paint with a push and turn latch. The under cab access door shall provide access to the diesel exhaust fluid fill.

1102-013

INTERIOR DOOR TRIM

The interior trim on the doors of the cab shall consist of an aluminum panel constructed of Marine Grade 5052-H32 0.13 of an inch thick aluminum plate. The door panels shall include a painted finish.

1323-001

DOOR TRIM CUSTOMER NAMEPLATE

The interior door trim on the front doors shall include a customer nameplate which states the vehicle was custom built for their Department.

1105-001

CAB DOOR TRIM REFLECTIVE

The interior of each door shall include high visibility reflective tape. A white reflective tape shall be provided vertically along the rear outer edge of the door. The lowest portion of each door skin shall include a reflective tape chevron with red and white stripes and a Spartan logo. The chevron tape shall measure 6.00 inches in height.

1308-001

INTERIOR GRAB HANDLE "A" PILLAR

There shall be two (2) rubber covered 11.00 inch grab handles installed inside the cab, one on each "A" post at the left and right door openings. The left handle shall be located 7.88 inches above the bottom of the door window opening and the right handle shall be located 2.88 inches above the bottom of the door window opening. The handles shall assist personnel in entering and exiting the cab.

1332-008

INTERIOR GRAB HANDLE FRONT DOOR

Each front door shall include one (1) ergonomically contoured 9.00 inch cast aluminum handle mounted horizontally on the interior door panels. The handles shall feature a textured black powder coat finish to assist personnel entering and exiting the cab.

1345-002

INTERIOR GRAB HANDLE REAR DOOR

A black powder coated cast aluminum assist handle shall be provided on the inside of each rear crew door. A 30.00 inch long handle shall extend horizontally the width of the window just above the window sill. The handle shall assist personnel in exiting and entering the cab.

1301-003

INTERIOR SOFT TRIM COLOR

The cab interior soft trim surfaces shall be gray in color.

1337-002

INTERIOR TRIM SUN VISOR

The header shall include two (2) 7.00 inches high X 18.00 inches wide impact resistant, transparent acrylic polycarbonate sun visors with a smoke gray tint shall be provided and installed on the header above the driver and officer.

The see thru visors are designed for maximum flexibility of positioning utilizing an arm with virtually unlimited adjustability with 13.50 inch long lateral travel of the tinted visor at the end of the arm which can be locked in place by a thumbscrew.

The visors are easily adjusted and can be placed into a chosen position with one hand. The sun visors will help protect vehicle occupants from solar glare without obscuring their vision.

1304-001

INTERIOR FLOOR MAT COLOR

The cab interior floor mat shall be gray in color.

1335-017

CAB PAINT INTERIOR DOOR TRIM

The inner door panel surfaces shall be painted with multi-tone silver gray texture finish.

1371-017

HEADER TRIM INTERIOR PAINT

The metal surfaces in the header area shall be coated with multi-tone silver gray texture finish.

1370-019

TRIM CENTER DASH INTERIOR PAINT

The entire center dash shall be coated with multi-tone silver gray texture finish. Any accessory pods attached to the dash shall also be painted this color.

1378-018

TRIM LH DASH INTERIOR PAINT

The left hand dash shall be painted with a multi-tone silver gray texture finish.

1373-018

TRIM RIGHT HAND DASH INTERIOR PAINT

The right hand dash shall be painted with multi-tone silver gray texture finish.

1344-002

DASH PANEL GROUP

The main center dash area shall include three (3) removable panels located one (1) to the right of the driver position, one (1) in the center of the dash and one (1) to the left of the officer position. The center panel shall be within comfortable reach of both the driver and officer.

1312-074

SWITCHES CENTER PANEL

The center dash panel shall include eight (8) standard rocker switch positions in the upper left portion of the panel.

A rocker switch with a blank legend installed directly above shall be provided for any position without a switch and legend designated by a specific option. The non-specified switches shall be two-position, black switches with a green indicator light. Each blank switch legend can be custom engraved by the body manufacturer. All switch legends shall have backlighting provided.

1313-007

SWITCHES LEFT PANEL

The left dash panel shall include five (5) switches in a three (3) over two (2) staggered switch configuration. Two (2) rocker switches, one (1) headlight switch, one (1) windshield wiper/washer control switch and one (1) instrument lamp dimmer switch shall be provided.

A rocker switch with a blank legend installed directly above shall be provided for any position not designated by a specific option. The non-designated switches shall be two-position, black switches with a green indicator light. Each blank switch legend can be custom engraved by the body manufacturer. All switch legends shall have backlighting provided.

1314-001

SWITCHES RIGHT PANEL

The right dash panel shall include no rocker switches or legends.

1225-007

SEAT BELT WARNING

A Weldon seat belt warning system, integrated with the Vehicle Data Recorder system, shall be installed for each seat within the cab. The system shall provide a visual warning indicator in the Vista display and control screen(s).

The warning system shall activate when any seat is occupied with a minimum of 60 pounds, the corresponding seat belt remains unfastened, and the park brake is released. The warning system shall also activate when any seat is occupied, the corresponding seat belt was fastened in an incorrect sequence, and the park brake is released. Once activated, the visual indicators and applicable audible alarm shall remain active until all occupied seats have the seat belts fastened.

1237-004

SEAT MATERIAL

The Seats Inc. 911 Battalion and universal seats shall be covered with Turnout Tuff™ rugged material. Turnout Tuff material is rip-stop weave nylon laminated with a polyurethane backing and is water repellent to 75 PSI to protect seats from being saturated or contaminated by fluids. The material meets FMVSS 302 flammability requirements.

1243-001

SEAT COLOR

All seats supplied with the chassis shall be gray in color. All seats shall include red seat belts.

1249-001

SEAT BACK LOGO

The seat back shall include the “Spartan” logo. The logo shall be centered on the standard headrest of the seat back and on the left side of a split headrest.

1201-021

SEAT DRIVER

The driver's seat shall be a Seats Inc. 911 Battalion series with a ten-way adjustable seat. The seat shall feature six-way electric adjustability up and down, fore and aft with 7.25 inches of travel, and seat rake. The seat shall also include lumbar and recline manual adjustment.

The seat shall feature an all belts to seat (ABTS) style of safety restraint. The ABTS feature shall include a three-point shoulder harness with the lap belt, automatic retractor and buckle as an integral part of the seat assembly. The buckle portion of the seat belt shall be mounted on a semi-rigid stalk extending from the seat base within easy reach of the occupant.

The minimum vertical dimension from the seat H-point to the ceiling for this belted seating position shall be 35.00 inches measured with the seat height adjusted to the lowest position of travel.

This model of seat shall have successfully completed the static load tests set forth by FMVSS 207/210. This testing shall include a simultaneous forward load of 3000 pounds each on the lap and shoulder belts and twenty (20) times the weight through the center of gravity. This model of seat installed in the cab model, as specified, shall have successfully completed the dynamic sled testing using FMVSS 208 as a guide with the following accommodations. In order to reflect the larger size outfitted firefighters, the test dummy used shall be a 95th percentile hybrid III male weighing 225 pounds rather than the 50th percentile male dummy weighing 165 pounds as referenced in FMVSS 208.

The materials used in construction of the seat shall also have successfully completed testing with regard to the flammability of materials used in the occupant compartments of motor vehicles as outlined in FMVSS 302, of which dictates the allowable burning rate of materials in the occupant compartments of motor vehicles.

1213-025

SEAT BACK DRIVER

The driver's seat shall include a standard seat back incorporating the all belts to seat feature (ABTS). The seat back shall feature a contoured head rest.

1219-001

SEAT MOUNTING DRIVER

The driver's seat shall be installed in an ergonomic position in relation to the cab dash.

1202-020

SEAT OFFICER

The officer's seat shall be a Seats Inc. 911 Battalion series. The seat shall feature a tapered and padded seat, cushion. The seat shall feature electric six-way adjustable positioning. The six (6) positions shall include up and down and fore and aft. The control shall be located centered under the front of the seat.

The seat shall feature an all belts to seat (ABTS) style of safety restraint. The ABTS feature shall include a three-point shoulder harness with the lap belt, automatic retractor and buckle as an integral part of the seat assembly.

The minimum vertical dimension from the seat H-point to the ceiling for this belted seating position shall be 35.00 inches measured with the seat height adjusted to the lowest position of travel.

This model of seat shall have successfully completed the static load tests by FMVSS 207/210. This testing shall include a simultaneous forward load of 3000 pounds each on the lap and shoulder belts and twenty (20) times the weight through the center of gravity. This model of seat installed in the cab model, as specified, shall have successfully completed the dynamic sled testing using FMVSS 208 as a guide with the following accommodations. In order to reflect the larger size outfitted firefighters, the test dummy used shall be a 95th percentile hybrid III male weighing 225 pounds rather than the 50th percentile male dummy weighing 165 pounds as referenced in FMVSS 208. The model of seats shall also have successfully completed the flammability of materials used in the occupant compartments of motor vehicles as outlined in FMVSS 302, of which decides the burning rate of materials in the occupant compartments of motor vehicles.

1214-034

SEAT BACK OFFICER

The officer's seat back shall include an IMMI brand SmartDock® Gen 2 hands-free self contained breathing apparatus (SCBA) holder. The hands-free holder shall meet NFPA 1901-03 9G dynamic requirements for cylinder restraint systems for use in crew compartments of emergency response vehicles. The bracket shall accommodate and secure most types of self-contained breathing apparatus cylinders.

The hands-free holder shall consist of a back plate, bottom cradle, non-marring top claws, and claw height adjustment knob. The height adjustment knob shall allow for easy adjustment of the claws to the SCBA. The hands-free holder's claws shall lock from inertial forces to prevent the SCBA from becoming a projectile in the event of a crash to meet the NFPA 1901-03 standard for SCBA retention. The SCBA holder shall offer single-motion insertion into the claws and hands-free release when the SCBA fitted seat occupant rises.

The seat back shall include a removable padded cover which shall be provided over the SCBA cavity.

1220-006

SEAT MOUNTING OFFICER

The officer's seat shall offer a special mounting position which is 3.00 inches forward of the standard location offering increased room behind the officer seat position.

1297-002

POWER SEAT WIRING

The power seat or seats installed in the cab shall be wired directly to battery power.

1273-001

SEAT BELT ORIENTATION CREW

The crew position seat belts shall follow the standard orientation which extends from the outboard shoulder extending to the inboard hip.

1266-001

SEAT FORWARD FACING CENTER LOCATION

The crew area shall include two (2) forward facing center crew seats with both located at the center of the rear wall.

1206-019

SEAT CREW FORWARD FACING CENTER

The crew area shall include a seat in the forward facing center position which shall be a Seats Inc. 911 Battalion series. The seat shall feature a tapered and padded seat, and cushion. The seat and cushion shall be hinged and compact in design for additional room and shall remain in the stored position until occupied.

The seat shall feature an all belts to seat (ABTS) style of safety restraint. The ABTS feature shall include a three-point shoulder harness with the lap belt and automatic retractor as an integral part of the seat assembly. The buckle portion of the seat belt shall extend from the seat base towards the driver position within easy reach of the occupant.

The minimum vertical dimension from the seat H-point to the ceiling for each belted seating position shall be 35.00 inches.

This model of seat shall have successfully completed the static load tests by FMVSS 207/210. This testing shall include a simultaneous forward load of 3000 pounds each on the lap and shoulder belts and twenty (20) times the weight through the center of gravity. This model of seat installed in the cab model, as specified, shall have successfully completed the dynamic sled testing using FMVSS 208 as a guide with the following accommodations. In order to reflect the larger size outfitted firefighters, the test dummy used shall be a 95th percentile hybrid III male weighing 225 pounds rather than the 50th percentile male dummy weighing 165 pounds as referenced in FMVSS 208. The model of seats shall also have successfully completed the flammability of materials used in the occupant compartments of motor vehicles as outlined in FMVSS 302, of which decides the burning rate of materials in the occupant compartments of motor vehicles.

1218-001

SEAT BACK FORWARD FACING CENTER

The seat in the forward facing center position shall include a standard seat back. The seat back shall feature an all belts to seat (ABTS) style safety restraint. The ABTS feature shall include a red, three-point shoulder harness with the lap belt and automatic retractor as an integral part of the seat assembly. The buckle portion of the seat belt shall extend from the seat base towards the driver position within easy reach of the occupant. The seat back shall feature a contoured, adjustable head rest.

1269-107

SEAT FRAME FORWARD FACING

The forward facing center seating positions shall include an enclosed seat frame located and installed on the rear wall. The seat frame shall measure 42.38 inches wide X 8.63 inches high X 22.00 inches deep.

The seat frame shall be constructed of Marine Grade 5052-H32 0.19 inch thick aluminum plate. The seat box shall be painted with the same color as the remaining interior.

1281-112

SEAT FRAME FORWARD FACING STORAGE ACCESS

There shall be two (2) access points to the storage area one (1) each side of the seat frame. Each access point shall be covered by a hinged door which measures 15.00 inches wide X 6.88 inches high to allow access for storage in the seat box.

1224-002

SEAT MOUNTING FORWARD FACING CENTER

The forward facing center seats shall be installed facing the front of the cab.

1311-101

CAB FRONT UNDERSEAT STORAGE ACCESS

The left and right under seat storage areas shall have a solid aluminum hinged door with non-locking latch.

1355-019

SEAT COMPARTMENT DOOR FINISH

All underseat storage compartment access doors shall have a multi-tone silver gray texture finish.

1511-200

WINDSHIELD WIPER SYSTEM

The cab shall include a triple arm linkage wiper system which shall clear the windshield of water, ice and debris. There shall be two (2) windshield wipers; each shall be affixed to a radial arm. The wiper motor shall be activated by an intermittent wiper control located within easy reach of the driver's position.

1534-002

ELECTRONIC WINDSHIELD FLUID LEVEL INDICATOR

The windshield washer fluid level shall be monitored electronically. When the washer fluid level becomes low the yellow "Check Message Center" indicator light on the instrument panel shall illuminate and the message center in the dual air pressure gauge shall display a "Check Washer Fluid Level" message.

1103-004

CAB DOOR HARDWARE

The cab entry doors shall be equipped with exterior pull handles, suitable for use while wearing firefighter gloves. The handles shall be made of aluminum with a chrome plated finish.

The interior exit door handles shall be flush paddle type with a black finish, which are incorporated into the upper door panel.

All cab entry doors shall include locks which are keyed alike. The door locks shall be designed to prevent accidental lockout.

The exterior pull handles shall include a scuff plate behind the handle constructed of polished stainless steel to help protect the cab finish.

1111-004

DOOR LOCKS

The cab entry doors shall include a Controller Area Network (CAN) based electronic door lock system which shall include two (2) external keypads, one (1) located on the left side next to the front grab handle and one (1) on the right side next to the front grab handle. There shall be one (1) red rocker switch provided on the inside of each front cab entry door to actuate the cab door locks. Each door lock may also be manually actuated from the inside of the cab by means of a red knob located on the paddle handle of the respective door. The electronic door lock system shall include four (4) key fobs for actuation with buttons for cab entry door locks and for compartment door locks.

When the doors are unlocked using the external keypad or the key fobs the interior dome lights shall illuminate and remain on for a period of twenty (20) seconds. The interior dome safety feature shall require the interior lighting power to be battery direct.

Wiring shall also be provided for up to four (4) exterior cab compartments and up to four (4) body compartments.

1113-003

DOOR LOCK LH EMS COMPARTMENT

The left hand side EMS compartment shall feature a power door lock actuator.

1114-003

DOOR LOCK RH EMS COMPARTMENT

The right hand side EMS compartment shall feature a power door lock actuator.

1112-003

POWER DOOR LOCK COMPARTMENT ACTIVATION

The power door lock feature shall include activation for exterior compartment door locks through the key fob, keypads and through a virtual switch on the multiplex display.

1503-200

GRAB HANDLES

The cab shall include one (1) 18.00 inch knurled, anti-slip, one-piece exterior assist handle behind each cab door. The grab handle shall be made of SAE 304 stainless steel and be 1.25 inch diameter to enable non-slip assistance with a gloved hand.

1504-039

REARVIEW MIRRORS

Ramco model CRM-310-1750-CHCHR bus style mirrors shall be provided. The mirror heads shall be injection molded chrome plated ABS plastic and shall measure 9.50 inches wide X 17.50 inches high. The mirrors shall be mounted one (1) on each the driver and officer doors of the cab with polished die-cast aluminum arms.

The mirrors shall feature an upper heated remote controlled flat glass and a lower heated manually adjustable convex glass. The mirror control switches shall be located within easy reach of the driver. The mirrors shall be manufactured using the finest quality non-glare glass and shall feature a rigid mounting thereby reducing vibration. The mirrors shall be corrosion free under all weather conditions.

1529-003

REARVIEW MIRROR HEAT SWITCH

The heat for the rearview mirrors shall be controlled through a virtual button on the Vista display and control screen.

1513-010

CAB FENDER

Full width wheel well liners shall be installed on the extruded cab to limit road splash and enable easier cleaning. Each two-piece liner shall consist of an inner liner 16.00 inches wide made of vacuum formed ABS composite and an outer fenderette 5.00 inches wide made of polished aluminum.

1514-002

MUD FLAPS FRONT

The front wheel wells shall have mud flaps installed on them.

1526-031

CAB EXTERIOR FRONT & SIDE EMBLEMS

The cab shall include three (3) Spartan emblems. There shall be one (1) installed on the front air intake grille and two (2) for the exterior sides of the cab shipped loose with the chassis for installation by the body manufacturer.

5109-001

IGNITION

A master battery system with a keyless start ignition system shall be provided. Each system shall be controlled by a one-quarter turn Cole Hersee switch, both of which shall be mounted to the left of the steering wheel on the dash. A chrome push type starter button shall be provided adjacent to the master battery and ignition switches.

Each switch shall illuminate a green LED indicator light on the dash when the respective switch is placed in the "ON" position.

The starter button shall only operate when both the master battery and ignition switches are in the "ON" position.

5101-021

BATTERY

The single start electrical system shall include six (6) Harris BCI 31 925 CCA batteries with a 210 minute reserve capacity and 4/0 welding type dual path starter cables per SAE J541.

5106-003

BATTERY TRAY

The batteries shall be installed within two (2) steel battery trays located on the left side and right side of the chassis, securely bolted to the frame rails. The battery trays shall be coated with the same material as the frame.

The battery trays shall include drain holes in the bottom for sufficient drainage of water. A durable, non-conducting, interlocking mat made by Dri-Dek shall be installed in the bottom of the trays to allow for air flow and help prevent moisture build up. The batteries shall be held in place by non-conducting phenolic resin hold down boards.

5107-007

BATTERY BOX COVER

Each battery box shall include a steel cover which protects the top of the batteries. Each cover shall include flush latches which shall keep the cover secure as well as a black powder coated handle for convenience when opening.

5102-001

BATTERY CABLE

The starting system shall include cables which shall be protected by 275 degree F. minimum high temperature flame retardant loom, sealed at the ends with heat shrink and sealant.

5108-010

BATTERY JUMPER STUD

The starting system shall include battery jumper studs. These studs shall be located in the forward most portion of the driver's side lower step, 8.00 inches apart. The studs shall allow the vehicle to be jump started, charged, or the cab to be raised in an emergency in the event of battery failure.

5104-002

ALTERNATOR

The charging system shall include a 320 amp Leece-Neville 12 volt alternator. The alternator shall include a self-exciting integral regulator.

5105-001

STARTER MOTOR

The single start electrical system shall include a Delco brand starter motor.

5202-116

BATTERY CONDITIONER

A Kussmaul Auto Charge 40 LPC battery conditioner shall be supplied. The battery conditioner shall provide a 40 amp output for the chassis batteries and a 15 amp output circuit for accessory loads. The battery conditioner shall be shipped loose with the cab. The battery conditioner shall include an additional 12.00 feet of coiled wire for relocation by the body manufacturer. This additional wire shall be routed behind the driver's seat.

5203-003

BATTERY CONDITIONER DISPLAY

A Kussmaul battery conditioner display shall be supplied. The battery conditioner display shall be mounted in front of the left side door just below the windshield.

5209-039

ELECTRICAL INLET LOCATION

An electrical inlet shall be installed on the left hand side of the cab ahead of the front door in the mid position.

5204-055

ELECTRICAL INLET

A Kussmaul 20 amp super auto-eject electrical receptacle shall be supplied. It shall automatically eject the plug when the starter button is depressed.

A single item or an addition of multiple items must not exceed the rating of the electric inlet that it's connected to.

Amp Draw Reference List:

Kussmaul 40 LPC Charger - 5 Amps

Kussmaul 40/20 Charger - 8.5 Amps

Kussmaul 80 LPC Charger - 13 Amps

Kussmaul EV-40 - 6.2 Amps

Blue Sea P12 7532 - 7.5 Amps

Iota DLS-45/IQ4 - 11 Amps

1000W Engine Heater - 8.33 Amps

1500W Engine Heater - 12.5 Amps

120V Air Compressor - 4.2 Amps

120V Dometic HVAC - 15 Amps

5210-004

ELECTRICAL INLET CONNECTION

The electrical inlet shall be connected to the battery conditioner.

5206-010

ELECTRICAL INLET COLOR

The electrical inlet connection shall include a white cover.

5301-102

HEADLIGHTS

The cab front shall include four (4) rectangular LED headlamps with separate high and low beams mounted in bright chrome bezels. Each lamp shall include a heating system that de-ices the headlight.

5337-001

HEADLIGHT LOCATION

The headlights shall be located on the front fascia of the cab directly below the front warning lights.

5303-004

FRONT TURN SIGNALS

The front fascia shall include two (2) Whelen model 600 4.00 inches X 6.00 inches programmable amber LED turn signals which shall be installed in an outboard position within the front fascia chrome bezel.

5336-015

SIDE TURN/MARKER LIGHTS

The sides of the cab shall include two (2) Tecniq S170 LED side marker lights which shall be provided just behind the front cab radius corners. The lights shall be amber with chrome bezels.

5302-024

MARKER AND ICC LIGHTS

In accordance with FMVSS, there shall be five (5) Tecniq S170 LED cab marker lamps designating identification, center and clearance provided. These lights shall be installed on the face of the cab within full view of other vehicles from ground level. The lights shall be amber in color.

5350-092

HEADLIGHT AND MARKER LIGHT ACTIVATION

The headlights and marker lights shall be controlled through a rocker switch within easy reach of the driver. There shall be a dimmer switch within easy reach of the driver to adjust the brightness of the dash lights. The headlamps shall be equipped with the "Daytime Running" light feature, which shall illuminate the headlights when the ignition switch is in the "On" position and the parking brake is released.

5426-008

LIGHTBAR SWITCH

The light bar shall be controlled through a virtual button on the Vista display and control screen. There shall be an additional button located on the Vista display and control screen to control the clear lights.

5305-351

INTERIOR OVERHEAD LIGHTS

The cab shall include a Weldon LED dome lamp located over each door. The lights shall include push switches on each lamp to activate both the clear and red portions of the light individually.

5388-003

INTERIOR OVERHEAD LIGHTS ACTIVATION

The clear portion of each lamp shall be activated by opening the respective door and via the multiplex display.

5403-051

LIGHTBAR PROVISION

There shall be two (2) light bars installed on the cab roof. The light bars shall be provided and installed by the chassis manufacturer. The light bar installation shall include mounting and wiring to a control switch on the cab dash.

5450N-006

CAB FRONT LIGHTBAR MODEL

The cab shall be provided with two (2) Whelen model F4NMINI light bars. Each light bar shall be 21.50 inches in length and feature eight (8) customizable pods.

See the light bar layout for specific details.

5317-243

FRONT SCENE LIGHTS

The front of the cab shall include two (2) HiViz model Firetech FT-MB-12-FT-W scene lights installed on the brow of the cab.

Each lamp head shall operate on 12 volt DC and incorporate a 12 LED optic that combines both spot and flood lighting. Each lamp head shall draw 5.0 amps, generate 6,336 total lumens, and measure approximately 2.00 inches in height X 16.00 inches in width. The lamp heads and brackets shall be powder coated white.

5329-006

FRONT SCENE LIGHT LOCATION

There shall be two (2) scene lights mounted to the front brow of the cab in the outboard position.

5335-003

FRONT SCENE LIGHTS ACTIVATION

The front scene lighting shall be activated by a virtual button on the Vista display and control screen.

5306-065

SIDE SCENE LIGHTS

The side of the cab shall include two (2) Whelen 900 series 9SC0ENZR model scene lights, one (1) each side which shall be surface mounted with a chrome bezel. The Whelen lights shall offer LED lighting at a gradient 32-degree angle.

5318-004

SIDE SCENE LIGHT LOCATION

The scene lighting located on the left and right sides of the cab shall be mounted rearward of the cab "B" pillar in the 10.00 inch raised roof portion of the cab between the front and rear crew doors.

5316-007

SIDE SCENE ACTIVATION

The scene lights shall be activated by two (2) virtual buttons on the Vista display and control screen(s), one (1) for each light.

5308-300

GROUND LIGHTS

Each door shall include a Tecniq T44 LED ground light mounted to the underside of the cab step below each door. The lights shall include a polycarbonate lens, a housing which is vibration welded and LEDs which shall be shock mounted for extended life.

5386-011

GROUND LIGHTS

The ground lighting shall be activated by the opening of the door on the respective cab side and a rocker switch in the dash panel.

5309-003

LOWER CAB STEP LIGHTS

The middle step located at each door shall include a Tecniq T44 LED light which shall activate with the opening of the respective door. The lights shall include a polycarbonate lens, a housing which is vibration welded and LEDs which shall be shock mounted for extended life.

5382-007

INTERMEDIATE STEP LIGHTS

The intermediate step well area at each door shall include a TecNiq D06 LED light within a chrome housing. The egress step lights shall provide visibility to the step well area for the first step exiting the vehicle. The egress step lights shall activate with entry step lighting.

5310-002

MAP LIGHTS

A Roxter gooseneck style map light shall be provided. The light shall have a clear bulb and a control switch on the base. The light shall be located on the right hand side of the dash.

5312-003

ENGINE COMPARTMENT LIGHT

There shall be a LED NFPA compliant light mounted under the engine tunnel for area work lighting on the engine. The light shall include a polycarbonate lens, a housing which is vibration welded and a bulb which shall be shock mounted for extended life. The light shall activate automatically when the cab is tilted.

5406-119

DO NOT MOVE APPARATUS LIGHT

The front headliner of the cab shall include a flashing red TecNiq K50 LED light clearly labeled "Do Not Move Apparatus". In addition to the flashing red light, an audible alarm shall be included which shall sound while the light is activated.

The flashing red light shall be located centered left to right for greatest visibility.

The light and alarm shall be interlocked for activation when either a cab door is not firmly closed, or an apparatus compartment door is not closed, and the parking brake is released.

5422-002

MASTER WARNING SWITCH

A master switch shall be included, as a virtual button on the Vista display and control screen which shall be labeled “E Master” for identification. The button shall feature control over all devices wired through it. Any warning device switches left in the “ON” position when the master switch is activated shall automatically power up.

5409-002

HEADLIGHT FLASHER

An alternating high beam headlight flashing system shall be installed into the high beam headlight circuit which shall allow the high beams to flash alternately from left to right.

Deliberate operator selection of high beams will override the flashing function until low beams are again selected. Per NFPA, these clear flashing lights will also be disabled “On Scene” when the park brake is applied.

5425-018

HEADLIGHT FLASHER SWITCH

The flashing headlights shall be activated through a rocker switch on the switch panel. The rocker switch shall be clearly labeled for identification.

5401-002

INBOARD FRONT WARNING LIGHTS

The cab front fascia shall include two (2) Whelen 600 series Super LED front warning lights in the left and right inboard positions. The lights shall feature multiple flash patterns including steady burn for solid colors and multiple flash patterns for split colors. The lights shall be mounted to the front fascia of the cab within a chrome bezel.

5413-002

INBOARD FRONT WARNING LIGHTS COLOR

The warning lights mounted on the cab front fascia in the inboard positions shall be red.

5423-003

FRONT WARNING SWITCH

The front warning lights shall be controlled through a virtual control on the Vista display and control screen. This switch shall be clearly labeled for identification.

5404-002

INTERSECTION WARNING LIGHTS

The chassis shall include two (2) Whelen 600 series Super LED intersection warning lights, one (1) each side. The lights shall feature multiple flash patterns including steady burn for solid colors and multiple flash patterns for split colors.

5419-002

INTERSECTION WARNING LIGHTS COLOR

The intersection lights shall be red.

5420-002

INTERSECTION WARNING LIGHTS LOCATION

The intersection lights shall be mounted on the side of the bumper in the rearward position.

5402-002

SIDE WARNING LIGHTS

The cab sides shall include two (2) Whelen 600 series Super LED warning lights, one (1) on each side. The lights shall feature multiple flash patterns including steady burn for solid colors and multiple flash patterns for split colors. The lights shall be mounted to the sides of the cab within a chrome bezel.

5418-002

SIDE WARNING LIGHTS COLOR

The warning lights located on the side of the cab shall be red.

5412-009

SIDE WARNING LIGHTS LOCATION

The warning lights on the side of the cab shall be mounted over the front wheel well forward from the center of the front axle.

5424-003

SIDE AND INTERSECTION WARNING SWITCH

The side warning lights shall be controlled through a virtual button on the Vista display and control screen. This button shall be clearly labeled for identification.

5449-049

REAR WARNING LIGHTS

The cab shall be prewired and contain a cutout for a Whelen TACTL5 Traffic Advisor control head to be installed by the body builder. The prewire shall be coiled under the center dash panel.

Wiring provisions shall be provided routed to the rear of the frame for OEM installation of up to eight (8) individual traffic advisor warning lights rated at no more than one (1) amp each.

The power to the control head shall be master power switched and activation dependent upon the state of the controllers switched position upon receiving power.

5510-004

SIREN CONTROL HEAD

A Whelen 295HFS2 electronic siren control head with remote amplifier shall be provided and flush mounted in the switch panel with a location specific to the customer's needs. The siren shall feature 200-watt output, hands free mode and shall be in "standby" mode awaiting instruction. The siren shall offer radio broadcast, public address, wail, yelp, or piercer tones and hands free operation which shall allow the operator to turn the siren on and off from the horn ring if a horn/siren selector switch option is also selected.

5514-002

STEERING WHEEL HORN BUTTON SELECTOR SWITCH

A rocker switch shall be installed in the switch panel between the driver and officer to allow control of either the electric horn or the air horn from the steering wheel horn button. The electric horn shall sound by default when the selector switch is in either position to meet FMCSA requirements.

5527-004

AUDIBLE WARNING RH FOOT SWITCH

A foot switch wired to actuate the mechanical siren(s) shall be supplied for installation in the front section of the cab for officer actuation.

5527C-001

MECHANICAL SIREN FOOT SWITCH RH

The mechanical siren foot switch shall be a Linemaster model 491-S.

5527D-001

MECHANICAL SIREN FOOT SWITCH RH LOCATION

The mechanical siren foot switch shall be temporarily tied up with a coiled wire drop behind the center dash for installation by the customer on the right hand side accessible to the officer.

5512-042

AIR HORN AUXILIARY ACTIVATION

The air horn activation shall be accomplished by a black momentary push button on the switch panel. An air horn activation circuit shall be provided to the chassis harness pump panel harness connector.

5513-503

MECHANICAL SIREN BRAKE/AUXILIARY ACTIVATION

Two (2) red momentary siren brake rocker switches shall be provided in the switch panel on the dash.

5532-001

MECHANICAL SIREN INTERLOCK

The siren shall only be active when master warning switch is on to prevent accidental engagement.

5505-002

BACK-UP ALARM

An ECCO model 575 backup alarm shall be installed at the rear of the chassis with an output level of 107 dB. The alarm shall automatically activate when the transmission is placed in reverse.

5601-041

INSTRUMENTATION

An ergonomically designed instrument panel shall be provided. Each gauge shall be backlit with LED lamps. Stepper motor movements shall drive all gauges. The instrumentation system shall be multiplexed and shall receive ABS, engine, and transmission information over the J1939 data bus to reduce redundant sensors and wiring.

A twenty eight (28) icon lightbar message center with integral LCD odometer/trip odometer shall be included. The odometer shall display up to 999,999.9 miles. The trip odometer shall display 9,999.9 miles. The LCD message center screen shall be capable of custom configuration by the users for displaying certain vehicle status and diagnostic functions.

The instrument panel shall contain the following gauges:

One (1) three-movement gauge displaying vehicle speed, fuel level, and Diesel Exhaust Fluid (DEF) level. The primary scale on the speedometer shall read from 0 to 100 MPH, and the secondary scale on the speedometer shall read from 0 to 160 KM/H. The scale on the fuel and DEF level gauges shall read from empty to full as a fraction of full tank capacity. Red indicator lights in the gauge and an audible alarm shall indicate low fuel or low DEF at 1/8th tank level.

One (1) three-movement gauge displaying engine RPM, and primary and secondary air system pressures shall be included. The scale on the tachometer shall read from 0 to 3000 RPM. The scale on the air pressure gauges shall read from 0 to 150 pounds per square inch (PSI) with a red line zone indicating critical levels of air pressure. Red indicator lights in the gauge and an audible alarm shall indicate low air pressure.

One (1) four-movement gauge displaying engine oil pressure, coolant temperature, voltmeter, and transmission temperature shall be included. The scale on the engine oil pressure gauge shall read from 0 to 100 pounds PSI with a red line zone indicating critical levels of oil pressure. A red indicator light in the gauge and audible alarm shall indicate low engine oil pressure. The scale on the coolant temperature gauge shall read from 100 to 250 degrees Fahrenheit (°F) with a red line zone indicating critical coolant temperatures. A red indicator light in the gauge and audible alarm shall indicate high coolant temperature. The scale on the voltmeter shall read from 9 to 18 volts with a red line zone indicating critical levels of battery voltage. A red indicator light in the gauge and an audible alarm shall indicate high or low system voltage. The low voltage alarm shall indicate when the system voltage has dropped below 11.8 volts for more than 120 seconds in accordance with the requirements of NFPA 1901. The scale on the transmission temperature gauge shall read from 100 to 300 degrees °F with a red line zone indicating critical temperatures. A red indicator light in the gauge and an audible alarm shall indicate a high transmission temperature.

The light bar portion of the message center shall include twenty-eight (28) LED backlit indicators. The lightbar shall be split with fourteen (14) indicators on each side of the LCD message screen. The lightbar shall contain the following indicators and produce the following audible alarms when supplied in conjunction with applicable configurations:

RED INDICATORS

Stop Engine - indicates critical engine fault

Air Filter Restricted - indicates excessive engine air intake restriction

Park Brake - indicates parking brake is set

Seat Belt - indicates a seat is occupied and corresponding seat belt remains unfastened

Low Coolant - indicates critically low engine coolant

Cab Tilt Lock - indicates the cab tilt system locks are not engaged.

AMBER INDICATORS

Malfunction Indicator Lamp (MIL) - indicates an engine emission control system fault
Check Engine - indicates engine fault
Check Transmission - indicates transmission fault
Anti-Lock Brake System (ABS) - indicates anti-lock brake system fault
High exhaust system temperature – indicates elevated exhaust temperatures
Water in Fuel - indicates presence of water in fuel filter
Wait to Start - indicates active engine air preheat cycle
Windshield Washer Fluid – indicates washer fluid is low
DPF restriction - indicates a restriction of the diesel particulate filter
Regen Inhibit-indicates regeneration of the DPF has been inhibited by the operator
Range Inhibit - indicates a transmission operation is prevented and requested shift request may not occur.
SRS - indicates a problem in the supplemental restraint system
Check Message - indicates a vehicle status or diagnostic message on the LCD display requiring attention.

GREEN INDICATORS

Left and Right turn signal indicators
ATC - indicates low wheel traction for automatic traction control equipped vehicles, also indicates mud/snow mode is active for ATC system
High Idle - indicates engine high idle is active.
Cruise Control - indicates cruise control is enabled
OK to Pump - indicates the pump is engaged and conditions have been met for pump operations
Pump Engaged - indicates the pump transmission is currently in pump gear
Auxiliary Brake - indicates secondary braking device is active

BLUE INDICATORS

High Beam indicator

AUDIBLE ALARMS

Air Filter Restriction
Cab Tilt Lock
Check Engine
Check Transmission
Open Door/Compartment
High Coolant Temperature
High or Low System Voltage
High Transmission Temperature
Low Air Pressure
Low Coolant Level
Low DEF Level
Low Engine Oil Pressure
Low Fuel
Seatbelt Indicator
Stop Engine
Water in Fuel
Extended Left/Right Turn Signal On
ABS System Fault

BACKLIGHTING COLOR

The instrumentation gauges and the switch panel legends shall be backlit using red LED backlighting.

5701-300

RADIO

A Jensen brand radio with weather band, AM/FM stereo receiver, rear RCA input pigtail connector, Bluetooth, satellite radio capability, and a covered front auxiliary mini stereo input with iPod ready front and rear USB inputs shall be installed in a customer specified location.

5736-200

RADIO LOCATION

The radio shall be installed in the right hand overhead position above the officer.

5707-003

AM/FM ANTENNA

A small antenna shall be located on the right hand side of the cab roof for AM/FM and weather band reception.

5737-200

RADIO SPEAKERS

There shall be two (2) speakers installed in the front portion of the cab recessed overhead and two (2) speakers installed on the upper rear wall of the cab. The speakers shall be provided for connection to the sound system.

5726-002

CAMERA LEFT HAND

One (1) Audiovox Voyager heavy duty rearview teardrop shaped chrome plated housing camera shall be mounted on the driver side of the cab below the windshield ahead of the front door at approximately the same level as the cab door handles. The camera display shall activate when the left side turn signal is activated.

5727-002

CAMERA RIGHT HAND

One (1) Audiovox Voyager heavy duty rearview teardrop shaped chrome plated housing camera shall be mounted on the officer side of the cab below the windshield ahead of the front door at approximately the same level as the cab door handles. The camera display shall activate when the right side turn signal is activated.

5728-009

CAMERA REAR

One (1) Audiovox Voyager heavy duty box shaped HD camera shall be shipped loose for OEM installation in the body to afford the driver a clear view to the rear of the vehicle.

The camera system shall include a one-way communication device that shall be an integral part of the rear camera for the use of voice commands directly to the driver. The rear camera display shall activate when the vehicle's transmission is placed in reverse.

5731-004

CAMERA DISPLAY

The camera system shall be wired to a single Weldon Vista display located on the driver's side dash. The camera system display can be activated through the Vista display panel.

5732-002

CAMERA SPEAKER

The rear camera shall be wired to speaker(s) in the cab and shall audible to the driver and officer. There shall be a virtual button provided on the Vista display and control panel to deactivate the speaker(s).

5702-023

TWO-WAY RADIOS

A radio wire conduit with a pull wire included shall be installed and routed from behind the dash to under the officer's seat for radio installation by the customer. The officer's under seat storage area shall include an access hole for the conduit cut into the rear face of the seat box. The hole shall be approximately 1.00 inch from the bottom and 1.00 from the inner wall of the seat box.

8814-002

CAB EXTERIOR PROTECTION

The cab face shall have a removable plastic film installed over the painted surfaces to protect the paint finish during transport to the body manufacturer.

8806-001

FIRE EXTINGUISHER

A 2.50 pound D.O.T approved fire extinguisher with BC rating shall be shipped loose with the cab.

8807-002

ROAD SAFETY KIT

The cab and chassis shall include one (1) emergency road safety triangle kit.

8810-001

DOOR KEYS

The cab and chassis shall include a total of four (4) door keys for the manual door locks.

8003-197

WARRANTY

Purchaser shall receive a Custom Chassis Two (2) Years or 36,000 Miles limited warranty in accordance with, and subject to, warranty certificate RFW0102. The warranty certificate is incorporated by reference into this proposal, and included with this proposal or available upon request.

8030-006

CHASSIS OPERATION MANUAL

There shall be two (2) digital copies of the chassis operation manual provided with the chassis. The digital data shall include a parts list specific to the chassis model.

8031-024

ENGINE AND TRANSMISSION OPERATION MANUALS

The following manuals specific to the engine and transmission models ordered will be included with the chassis in the ship loose items:

(1) Hard copy of the Engine Operation and Maintenance manual with digital copy

(1) Digital copy of the Transmission Operator's manual

(1) Digital copy of the Engine Owner's manual

8032-018

ENGINE SERVICE MANUALS

There shall be one (1) printed hard copy set of Cummins engine service reference manuals which shall be provided with the chassis.

8033-002

TRANSMISSION SERVICE MANUALS

There shall be one (1) printed hard copy set of Allison 4000 transmission service manuals included with the chassis.

8805-007

CAB/CHASSIS AS BUILT WIRING DIAGRAMS

The cab and chassis shall include two (2) digital copies of wiring schematics and option wiring diagrams.

8039-001

SALES TERMS

The sale of the chassis shall be governed by the terms contained on the Sales Terms – Acceptance of Purchase Order document, a copy of which is attached to this option.

9005-002

DRIVELINE LAYOUT CONFIRMATION

During the design phase of the chassis the Spartan Chassis driveline engineer shall submit the driveline layout to an OEM engineer to review the chassis design for any potential problems integrating the OEM body to the chassis. The OEM engineer shall provide approval to the driveline engineer prior to driveline bills of materials being released.



Quote Summary with Notes

Customer: Dinuba Fire Department
496 E. Tulare Street

Dealership: Fire Apparatus Solutions
1762 S Sycamore Ave

Dinuba, CA 93618

Rialto, CA 92376

Quote No: 0022355

Quote Name: Dinuba FD 105' Aerial 2022

S.O.#:

Unit Type:

Option ID

Description

General Info

General Info Section

900992 **Smeal 105' Rear Mount Aerial Ladder**
 100973 Smeal Branded Badging and Logo's
 911085 Destination, United States
 900998 Intent of Specifications, Aerial, Pump
 911059 Bidding Prerequisites, United States
 911060 Standards Version, NFPA 1901-2016
 911064 Inspection Certificate, NFPA 1901 Compliance
 911070 Documentation, NFPA
 980016 Owner's Manuals, Electronic, (1) USB Drive
 901037 Aerial Operations/Parts/Maintenance Manuals, (1) Printed Copy, (1) USB Drive
 121744 Aerial Demonstration, Aerial Ladder, (3) Consecutive Days
 911081 Misc. Equipment Allowance, 2,500 Lb.
 901080 Tilt Table Test, Not Required, Chassis ESC
 980012 Pump Certification, Independent Third Party
 911066 Pump Certification Measure, U.S. GPM
 911304 Apparatus Production Photos
 911073 Pre-Construction Meeting, OEM Factory
 911074 Final Inspection, OEM Factory, Required
 900489 Overall Height, 141" (11'-9")
 900255 Overall Length, 500 (41'-8")
 900576 Wheelbase, 228 (19'-0")
 900653 Angle of Approach, 8 Degrees
 900674 Angle of Departure, 8 Degrees

Chassis

Chassis Section

910013 **Custom Chassis, Spartan, Gladiator**
 910020 Axles, Tandem
 001360 OEM Chassis Preparations, Spartan Metro Star/Gladiator
 001200 Mud Flaps, Front Chassis Provided, Rear OEM Provided
 910021 Cab Electrical, Multiplex
 007487 Extend Chassis Air Tank Drains, Outside of Body

Option ID	Description
UPOxxxxxxx	Grab Handles, (2), Mounted Vertically on Front of Chassis Cab
001379	Heat Exchanger, Chassis Supplied and Installed
100964	Relocate Cab Tilt Pendant, Standard Location
910156	Front Bumper, Chassis Supplied and Installed
UPOxxxxxxx	Center Front Bumper Storage Well Cover
UPOxxxxxxx	Map Console, 3-Slot MultiSpec to Match Cab Interior, (2) Radio Slots (Dinuba)
911113	Map Console Location, Engine Tunnel Mounted, Drop-In
008571	Battery Charger, Chassis Supplied, OEM Installed
UPO0058220	No Charger Cover
110034	Helmet Brackets (4), Zico, UHH-1
UPOxxxxxxx	Flashlights, (4) Streamlight SL-20XP LED Rechargeable Orange w/ Charger Sleeve
111539	Flashlights (2), Streamlight, E-Spot LiteBox, LED, Orange, 45855, Vehicle Mount System
UPOxxxxxxx	SCBA Compartment - Rear Facing, Behind Driver's Seat (Dinuba)
UPOxxxxxxx	Gear Compartment Behind Engine Tunnel, (Dinuba)
UPOxxxxxxx	SCBA Compartment - Rear Facing, Behind Officer's Seat (Dinuba)
112100	EMS Finish, Multi-Spec to Match Cab Interior, 3 EMS Compartments
Water/Foam Tanks	<u>Water/Foam Tanks Section</u>
110073	Water Tank, Pro-Poly, 400 U.S. Gallons
005143	Water Tank Mounting, Pro-Poly, Aerials
002230	Water Tank Drain, 1-1/2" Valve, Aerials
910158	Water Tank Fill Tower, Pro-Poly, Black
003589	Water Tank Level Gauge, Class 1 Intelli-Tank ITL-12093, Pump Operator's Panel
004776	Water Tank Overflow, Pro-Poly, 4"
005537	Foam Cell, Pro Poly, 40 U.S. Gallon
910172	Foam Cell Type, Class A
910168	Foam Cell Fill Tower, Pro Poly, Black
002929	Foam Cell Level Gauge, Class 1 Intelli-Tank ITL-12105, Class A Foam
Hose Bed	<u>Hose Bed Section</u>
003506	Hose Bed, EHL, Black Bedliner Coating Finish (105'/125'/RMP)
911300	EHL Hose Load, Double-Jacket Hose, 1000' of 5"
Body / Pump Module	<u>Body / Pump Module</u>
002647	Body, 100" Wide, Rear Mount Aerial, Tandem-Axle, Aluminum, 1/8" (75'/UT 100'/105'/107)
120790	Side Compartment Doors, Lap Doors, Painted
901192	Inner Door Pan, Side Doors, Painted Main Body Color
101229	Compartment Door Handles, Lap Doors, All Non-Locking (10), D-Ring Handle(s)
009818	Rear Compartment Door, (1), Painted Lap Door, Grab Handle
901195	Inner Door Pan, (1) Rear Door, Painted Main Body Color
121085	Compartment Lighting, On-Scene, Access Series LED (20)
000934	Compartment Finish, Bedliner Coating, Gray

Option ID	Description
120482	Flooring, Black Turtle Tiles, All Interior Body Compartment Shelves Only
000474	Air Release and Drain Holes, All Compartments
000440	Sill Protectors, Anodized Aluminum, Lap Door Compartments
112149	Fuel Fill, OEM Brushed Door, Driver's Side
121956	Wheel Well Storage Design, Tandem Axle, Smart Storage
121545	Driver's (Left) Side Body, Mid-Size RMA, Tandem Axle, L1 Full, L2 Upper, L3 Upper, L4 Upper, L5 Full
L1	L1 Components
Height	Height - 62
Width	Width - 28"
Upper Depth	Upper Depth - 13"
Lower Depth	Lower Depth - 22"
Divide Height	Intermediate Divide Height - 30"
900983	Lap Door Hinge, Vertical, Rearward
002743	Shelf (1), Adjustable, Aluminum, Shallow Depth (2 Struts), Bedliner Coating
003437	Tray (1), Floor-Mounted Roll Out, Innovative Ind., 300# (SM3-LP), 100% Extension, Bedliner Coating
120785	Compartment Struts, Vertical, Welded Aluminum
Cmpt. Layout	The compartment layout shall be detailed at the pre-construction meeting.
L2	L2 Components
Height	Height - 32"
Width	Width - 39"
Upper Depth	Upper Depth - 13"
Lower Depth	Lower Depth - 13"
Divide Height	Intermediate Divide Height - "
900982	Lap Door Hinge, Horizontal, Top
002743	Shelf (1), Adjustable, Aluminum, Shallow Depth (2 Struts), Bedliner Coating
120785	Compartment Struts, Vertical, Welded Aluminum
Cmpt. Layout	The compartment layout shall be detailed at the pre-construction meeting.
L3	L3 Components
Height	Height - 32"
Width	Width - 39"
Upper Depth	Upper Depth - 13"
Lower Depth	Lower Depth - 13"
Divide Height	Intermediate Divide Height - "
900982	Lap Door Hinge, Horizontal, Top
Cmpt. Layout	The compartment layout shall be detailed at the pre-construction meeting.
L4	L4 Components
Height	Height - 18"
Width	Width - 53"
Upper Depth	Upper Depth - 13"

Option ID	Description
Lower Depth	Lower Depth - 13"
Divide Height	Intermediate Divide Height - "
900982	Lap Door Hinge, Horizontal, Top
Cmpt. Layout	The compartment layout shall be detailed at the pre-construction meeting.
L5	L5 Components
Height	Height - 50"
Width	Width - 27"
Upper Depth	Upper Depth - 13"
Lower Depth	Lower Depth - 23"
Divide Height	Intermediate Divide Height - 23"
900981	Lap Door Hinge, Vertical, Forward
002743	Shelf (1), Adjustable, Aluminum, Shallow Depth (2 Struts), Bedliner Coating
120785	Compartment Struts, Vertical, Welded Aluminum
Cmpt. Layout	The compartment layout shall be detailed at the pre-construction meeting.
121926	WL1, Smart Storage, Air Bottle Storage, OEM Brushed SS Door, Triple Triangle Design
121933	WL2, Smart Storage, Open Storage, OEM Brushed SS Drop-Down Door
121936	WL3, Smart Storage, Air Bottle Storage, OEM Brushed SS Door, Triple Triangle Design
121583	Officer's (Right) Side Body, Mid-Size RMA, Tandem Axle, R1 Full, R2 Upper, R3 Upper, R4 Upper, R5 Full
R1	R1 Components
Height	Height - 62
Width	Width - 28"
Upper Depth	Upper Depth - 13"
Lower Depth	Lower Depth - 22"
Divide Height	Intermediate Divide Height - 25"
900983	Lap Door Hinge, Vertical, Rearward
002743	Shelf (1), Adjustable, Aluminum, Shallow Depth (2 Struts), Bedliner Coating
003437	Tray (1), Floor-Mounted Roll Out, Innovative Ind., 300# (SM3-LP), 100% Extension, Bedliner Coating
120785	Compartment Struts, Vertical, Welded Aluminum
Cmpt. Layout	The compartment layout shall be detailed at the pre-construction meeting.
R2	R2 Components
Height	Height - 32"
Width	Width - 39"
Upper Depth	Upper Depth - 13"
Lower Depth	Lower Depth - 13"
Divide Height	Intermediate Divide Height - "
900982	Lap Door Hinge, Horizontal, Top

Option ID	Description
002743	Shelf (1), Adjustable, Aluminum, Shallow Depth (2 Struts), Bedliner Coating
120785	Compartment Struts, Vertical, Welded Aluminum
Cmpt. Layout	The compartment layout shall be detailed at the pre-construction meeting.
R3	R3 Components
Height	Height - 32"
Width	Width - 39"
Upper Depth	Upper Depth - 13"
Lower Depth	Lower Depth - 13"
Divide Height	Intermediate Divide Height - "
900982	Lap Door Hinge, Horizontal, Top
Cmpt. Layout	The compartment layout shall be detailed at the pre-construction meeting.
R4	R4 Components
Height	Height - 18"
Width	Width - 53"
Upper Depth	Upper Depth - 13"
Lower Depth	Lower Depth - 13"
Divide Height	Intermediate Divide Height - "
900982	Lap Door Hinge, Horizontal, Top
Cmpt. Layout	The compartment layout shall be detailed at the pre-construction meeting.
R5	R5 Components
Height	Height - 50"
Width	Width - 51"
Upper Depth	Upper Depth - 13"
Lower Depth	Lower Depth - 23"
Divide Height	Intermediate Divide Height - 23"
900984	Lap Door Hinge, Vertical, Double Doors
002743	Shelf (1), Adjustable, Aluminum, Shallow Depth (2 Struts), Bedliner Coating
002745	Shelf (1), Adjustable, Aluminum, Full Depth (4 Struts), Bedliner Coating
120785	Compartment Struts, Vertical, Welded Aluminum
Cmpt. Layout	The compartment layout shall be detailed at the pre-construction meeting.
121942	WR1, Smart Storage, Air Bottle Storage, OEM Brushed SS Door, Triple Triangle Design
121949	WR2, Smart Storage, Open Storage, OEM Brushed SS Drop-Down Door
121952	WR3, Smart Storage, Air Bottle Storage, OEM Brushed SS Door, Triple Triangle Design
901045	Rear Side Body, Rear Mounts, Torque Box Compartment
008773	Sub Frame Body Mounts, GS-36, Hot-Dip Galvanized Steel, Aerial (105')
005118	Rub Rails, "C" Channel Design
000516	Tow Option, Rear, Tow Eye, Two (2), Chrome

Option ID	Description
UPO0040538	Modifications
121960	Wheel Wells, Rear, Tandem Axle, Black Polymer, Smart Storage
121958	Fenderettes, (4), Tandem Axle, Stainless Steel, Smart Storage
120489	Exhaust Heat Deflector Shield, 4"
002427	License Plate Bracket
006375	Stainless Steel Screws, Aerial
911283	NO Bag of Bolts
900963	Walkways/Overlays/Stepping Surfaces, Tread Plate, NFPA 1901
007906	Turntable Access Ladder, Driver's Side, Grote LED Light, Knurled Aluminum Handrails, Rear Mounts
000505	Overlay, Tread Plate, Vertical Areas of Both Front Compartments
007897	Front Steps and Lighting, Cast Products, Folding Steps (4), Driver's Side, Smeal Logo
007902	Front Steps and Lighting, Cast Products, Folding Steps (4), Officer's Side, Smeal Logo
900960	Handrail Material, Knurled Aluminum
UPOxxxxxxx	Front Steps and Lighting, Cast Products, Folding Steps (2), Rear of Front Stabilizers, One Each Side, Smeal Logo
003598	Handrail, Body (Front), Top, Driver's Side, Knurled Aluminum
000521	Handrail, Body (Front), Top, Officer's Side, Knurled Aluminum
120676	Handrails, Pump Module, Above Pump Panel, Horizontal, Both Sides, Knurled Aluminum
001316	Ladder Storage, In Torque Box, (2) Enclosed Compartments (105')
121676	Ground Ladder Package, Duo-Safety, (1) 10' Attic (585-A), (1) 14' Fresno (701), (1) 16' Roof (875-A), (1) 24' Two-Section (900-A), (1) 35' Three-Section (1225-A)
009223	Pike Pole Storage, In Upper Portion of Torque Box, (6) Tubes
121692	Pike Pole Package, Duo-Safety, Fiberglass, Standard Hooks, (2) 6' Poles (FP6), (2) 8' Poles (FP8), (2) 12' Poles (FP12)
009226	Pike Pole Storage, In Upper Portion of Torque Box, (2) Trays
121263	Pike Poles (2), Fire Hooks Unlimited, 4' Fiberglass, National Hook, Ash Core, D-Handle, NHF-4 w/D
900953	Wheel Chock Storage, Under Rear of Body, Driver's Side
001204	Wheel Chocks, (1) Pair, Zico SAC-44 and Bracket, OEM Installed
002648	Pump Module, Rear Mount Aerial, Independent, 1/8" Aluminum (105')
004731	Pump Compartment Internal Lighting, LED, On-Scene
009864	Running Board, Driver's Side, Bolt-On, Tread Plate
010108	Running Board, Officer's Side, Bolt-On, Tread Plate
009863	Pull-Out Platforms (2), Both Sides of Pump Module, Innovative Industries
009985	Tread Plate Dunnage, Above Pump Module, Tread Plate Cover
005149	Access Panel, Pump, Front Pump Module, Removable, Tread Plate, Compression Latches, Side Mounts, RMA's
000460	Access Panel, Pump, Officer's Side Pump Module, Side-Hinged, Tread Plate, Compression Latches
121716	Pump Panels, Rear Mount Aerial and Platform, Controls on Driver's Side, Black Bedliner Coating Finish, IC Bezels/Trim Rings/Labels

Option ID	Description
003659	Pump Panel Lighting, Side Panels, LED, On-Scene Night Axe
910612	Pump Panel Lighting Activation, Automatic with Park Brake Engaged
UPOxxxxxxx	Speaker, University Sound, Left Side Of Pump Module, With Volume Control (D-226-3021) (D-CT22152)
Pump / Foam System	<u>Pump / Foam System</u>
100157	Pump, Waterous, Single-Stage, 2000 GPM, CSUC20, Flame Plated Impeller Hubs
910618	Grafoil Packing, Waterous
002792	Anodes, Waterous, Magnesium, 2 Discharge, 2 Intake
910622	Pump Rating, 1500 GPM
910640	Pump Mounting, Independent Pump Module
100272	Pump Shift, Chassis Sup/Instl, Electric-Over-Air, Lights Incorporated with Pres. Gov.
101457	Relocate Chassis Supplied Knee Area Pump Shift
UPOxxxxxxx	Governor, Total Pressure Governor (UV-TPG), Class 1
UPOxxxxxxx	Pump Hour Meter
002210	Intake Relief Valve, Pump, Elkhart, Factory Preset
006588	Primer, Trident, AirPrime (3-Barrel), Air-Operated Valve (31.001.7)
000112	Master Drain Valve, Trident
000087	Overheat Protection Manager (OPM), Waterous, With Lights
005848	Pump Color Painted Gray - Intakes Primary Body Color
901166	Pump Manuals Waterous, (2)
111069	Pump and Engine Cooling System, Inn. Cntrls, 3/8" I.D., Hose, Controls on Pump Panel
100743	Foam System, Eductor, Akron, 3096 Bypass, 95 GPM, Class A, Flush System <i>Shop Note:</i> <i>Only one (1) fill tube for the Foam Refill System</i>
980014	Foam System Testing, Single System
006643	Manifold, Waterous, Standard, Side Mounts, Non-Foam
910503	Akron 8800/8600 - Push/Pull Discharges (RC-10 on 3" or Larger) - Manual Intakes
910589	Gauge Brand, Thuemling, 2-1/2" Liquid Filled (No Bezel) - PSI 0-400
006940	Master Gauges, Thuemling, 4-1/2", Liquid Filled, PSI -30-0-400
111067	Test Ports, Pressure/Vacuum, Inn. Cntrls, Operators Panel
910527	Hardware Brand, South Park, NH Intake Swivels, NH Discharges, TFT Storz
100377	Drains, Innovative Controls, Manual Lift Handle <i>Shop Note:</i> <i>No auto drains will be installed on the front bumper or crosslays. These need to be manual.</i>
911305	Plumbing Labels, OEM Standard
Tank/Pump Plumbing Labels	Tank/Pump Plumbing Labels - See label order form (required)
100349	Pump to Tank Fill, 2", Akron 8800 2" Manual Valve, IC Push-Pull Handle

Option ID	Description
100310	Tank to Pump, 3", Akron 8800 3" Manual Valve, IC Push-Pull Handle <i>Shop Note:</i> <i>Reverse the tank lever handle; label "PULL TO CLOSE"</i>
Intakes	<u>Intakes</u>
100381	Main Intake, Driver Side, 6", Short Tube, Full-Body Pump, MNST
UPOxxxxxxx	TFT 6" FNST x 5" Storz, Jumbo Ball intake Valve AB3ST-NX, 5" Storz Cap with Lanyard A01ST
UPO0050330	None
UPO0050331	None
UPO0046300	No Cap
002588	Auxiliary Intake, Driver-Side, 2-1/2", Fully Recessed
007059	Valve, 2-1/2", Akron, Manual, 8825, Stainless Ball, TS Handle
001246	Plug, NH, 2-1/2", South Park, HPC3008AC
100385	Main Intake, Officer Side, 6", Short Tube, Full-Body Pump, MNST
UPOxxxxxxx	TFT 6" FNST x 5" Storz, Jumbo Ball intake Valve AB3ST-NX, 5" Storz Cap with Lanyard A01ST
UPO0046301	No Cap
Intake Labels	Intake Labels - See label order form (required)
Discharges	<u>Discharges</u>
002545	Discharge, Driver-Side, 2-1/2", NST (250 GPM NFPA Rated)
910534	Foam Capable Discharge <i>Shop Note:</i> <i>This is the only foam capable discharge. There will be special plumbing involved for the Akron Foam Eductor,</i>
111712	Valve, 2-1/2", Akron, Manual, 8625, Stainless Ball, Innovative Controls Push Pull Controller (Rack and Sector)
005849	Pressure Gauge, 2-1/2", Thuemling, Liquid Filled - psi 0-400
100542	Elbow (45 Deg.) 2-1/2" FNH x 2-1/2" MNH (SE394505AC) - Adapter, 2-1/2" FNH x 1-1/2" MNH (A3720AC) - NH Cap (HCC2804AC), Chrome, South Park
002545	Discharge, Driver-Side, 2-1/2", NST (250 GPM NFPA Rated)
111712	Valve, 2-1/2", Akron, Manual, 8625, Stainless Ball, Innovative Controls Push Pull Controller (Rack and Sector)
005849	Pressure Gauge, 2-1/2", Thuemling, Liquid Filled - psi 0-400
100542	Elbow (45 Deg.) 2-1/2" FNH x 2-1/2" MNH (SE394505AC) - Adapter, 2-1/2" FNH x 1-1/2" MNH (A3720AC) - NH Cap (HCC2804AC), Chrome, South Park
002538	Discharge, Officer-Side, 2-1/2", NST (250 GPM NFPA Rated)
100659	Valve, 2-1/2", Akron, Manual, 8825, Stainless Ball, Innovative Controls Push Pull Controller (Operators Panel)
005849	Pressure Gauge, 2-1/2", Thuemling, Liquid Filled - psi 0-400
100527	Elbow (30 Deg.) 2-1/2" FNH x 2-1/2" MNH (SE393010AC) - NH Cap (HCC2808AC), Chrome, South Park
002553	Discharge, Officer-Side, 4", NST (625 GPM NFPA Rated)
100642	Valve, 3", Akron, Gear, 8630, Stainless Ball, 4" Handwheel with Vert. Position Indicator
005849	Pressure Gauge, 2-1/2", Thuemling, Liquid Filled - psi 0-400

Option ID	Description
100612	Elbow (30 Deg.) 4" FNH x 5" Storz (AH3ST-NP), Storz Cap (A01ST), TFT
121828	Discharge, Front Bumper Driver-Side, 1-1/2", Chassis Installed Plumbing, Above Gravelshield, NST <i>Shop Note:</i> <i>The front bumper shall NOT have any auto drains, they will be manual.</i>
100658	Valve, 2-1/2", Akron, Manual, 8825, Stainless Ball, Innovative Controls Push Pull Controller
005849	Pressure Gauge, 2-1/2", Thuemling, Liquid Filled - psi 0-400
910526	Preconnect Discharge
006998	Crosslays, Above Front Stabilizers, (2) 1-1/2" and (1) 2-1/2"
007013	Pre-connect Hose Bed Housing Coating, Abraded Finish
007018	Flooring, Dura-Dek
000205	Crosslay Rollers
009842	Crosslay Dividers (2), Abraded Aluminum, Notched
007020	Crosslay Cover, Hinged Tread Plate, Side Mount <i>Shop Note:</i> <i>Non Skid tread plate to be used.</i>
110291	Crosslay End Covers, Vinyl, C-Rail Top and Footman Loop / J-Hook on Bottom, Black
910701	Pre-connect, Crosslay/Speedlay, 1-1/2", NST <i>Shop Note:</i> <i>The crosslay shall NOT have any auto drains, they will be manual.</i>
910654	Crosslay Load, 200' of 1-3/4" Hose, Single Stack
100653	Valve, 2", Akron, Manual, 8820, Stainless Ball, Innovative Controls Push Pull Controller
005849	Pressure Gauge, 2-1/2", Thuemling, Liquid Filled - psi 0-400
910526	Preconnect Discharge
910701	Pre-connect, Crosslay/Speedlay, 1-1/2", NST <i>Shop Note:</i> <i>The crosslay shall NOT have any auto drains, they will be manual.</i>
910654	Crosslay Load, 200' of 1-3/4" Hose, Single Stack
100653	Valve, 2", Akron, Manual, 8820, Stainless Ball, Innovative Controls Push Pull Controller
005849	Pressure Gauge, 2-1/2", Thuemling, Liquid Filled - psi 0-400
910526	Preconnect Discharge
910702	Pre-connect, Swivel, Crosslay/Speedlay, 2-1/2", NST <i>Shop Note:</i> <i>The crosslay shall NOT have any auto drains, they will be manual.</i>
910651	Crosslay Load, 150' of 2-1/2" Hose, Single Stack
100658	Valve, 2-1/2", Akron, Manual, 8825, Stainless Ball, Innovative Controls Push Pull Controller
005849	Pressure Gauge, 2-1/2", Thuemling, Liquid Filled - psi 0-400
910526	Preconnect Discharge
100768	Booster Reel, Hannay, Aluminum, Polished, Electric Rewind, 200' of 1" Hose Capacity
910703	Booster Reel Location, Dunnage, Above the Pump

Option ID	Description
	<i>Shop Note:</i> <i>The booster reel will be mounted on the officers side next to the cord reel.</i>
100648	Valve, 1-1/2", Akron, Manual, 8815, Stainless Ball, Innovative Controls Push Pull Controller
100809	Booster Hose, 1", 800 lb Test, 200', (2) 100' Sections
100831	Rewind Switches, Booster Reel, (1) Officer's Side Pump Panel, (1) Foot Switch Below Running Board
007596	Discharge, Aerial Waterway, 4" (UT100'/105'/110'/125')
101350	Valve, 4", Akron, Electric, 8940, Composite Ball, 9335 Navigator Pro Controller (Valve, Pressure, Flow)
Discharge Labels	Discharge Labels - See label order form (required)
Low Voltage	Low Voltage
002956	Electrical System, Aerial, Weldon V-MUX Multiplex, QL-12 Harnesses, Sealed Switches
911058	Electrical System Test, 12 Volt
002842	Tail Lights, LED, Whelen, 600 Series, Stop-Tail (Separate) (604BTT)/Turn (604T)/Warning, 4-Light Vertical Casting
002192	Switch, Rear Work Light, At Rear/Reverse
006766	Turn Signals, (2) in Wheel Well Area, LED, Truck-Lite, Model 21
100958	Ground Lights, LED, T44, Tecniq, Activation by Park Brake
006296	Parking Lights, Rear Fender Wells, LED, Innovative Lighting
007397	Clearance Lights, With Rubber Extension Arms, LED, Grote (65282) and Truck-Lite (35741R ID), Red
004882	Camera System, Back-Up, Chassis Supplied, OEM Installed
100040	Intercom System, Sigtronics US45S, 4 Cab Position, Wired Driver/Officer (SE-8), 2 Wired Crew (SE-2)
100060	Additional Intercom Position, (1) Pump Panel, Sigtronics US67S, Headset Extension Cable
100061	Additional Intercom Position, (1) Rear Body, Driver's Side, Sigtronics US67S, Headset Extension Cable
UPOxxxxxxx	Radio Interface Cable, Sigtronics, Y Adapter (2)
911317	Upper Zone A, Chassis Supplied and Installed
110409	Upper Zone C, Beacons (2), Whelen, L31 LED
Upper Zone C Light/ Lens Color	Light/Lens Color - Red LED's with Clear Lenses
110473	Lower Zone Warning Lights (4 OEM Provided), A (0), B (1), C (2), D (1), Whelen, LED, 600 Series
Lower Zone Light/ Lens Color	Light/Lens Color - Red LED's with Clear Lenses
003120	Traffic Advisor, Whelen, 6-Light, 5mm LED Low-Profile, TAL65, TACTL5 Controller
910738	Traffic Directional Light Location, Rear Body Face, Recess Mounted
000890	Air Horn Activation, Push Button on Pump Panel, Driver's Side
110631	Scene Lights, Pair, 12V, Whelen, Surface Mount, LED 900 Series Gradient Opti-Scene
910851	Lighting Location, Rear Face of Body, Both Sides

Option ID	Description
110838	Lighting Activation, On V-Mux Screen and Pump Panel, 'REAR SCENE', Wired to Reverse and Rear Work Light Switch
110589	Scene Lights (2), 12V, FRC, Pedestal Mount, LED Spectra 20,000 Lumen, Switch on Lighthouse, Model SPA570-Q20-ON
910845	Lighting Location, On Top of the Body, Rearward, Both Sides
110848	Lighting Activation, Pair, In Cab and On Pump Panel, 'LEFT SCENE' and 'RIGHT SCENE', Rocker Switches
110589	Scene Lights (2), 12V, FRC, Pedestal Mount, LED Spectra 20,000 Lumen, Switch on Lighthouse, Model SPA570-Q20-ON
910848	Lighting Location, On Top of the Pump Module, Rearward, Both Sides
110848	Lighting Activation, Pair, In Cab and On Pump Panel, 'LEFT SCENE' and 'RIGHT SCENE', Rocker Switches
Line Voltage	Line Voltage
UPOxxxxxxx	Inverter, GoWISE PS1004, 3000W
UPOxxxxxxx	Transfer Switch, Inverter-to-Shoreline
UPOxxxxxxx	Inverter Location, Above Pump Module
UPOxxxxxxx	Receptacle, 120V, 5-15R Household, Duplex, Wired to Inverter
910914	Receptacle Location, In L3 Cmpt
UPOxxxxxxx	Receptacle, 120V, 5-15R Household, Duplex, Wired to Inverter
910914	Receptacle Location, In L3 Cmpt
110888	Cord Reel, Hannay, 120V, 200' 10/3 Yellow Cord, Terminate L5-30 Receptacle, Junction Box with Pigtail, Circle D
901149	Junction Box Option, Powder Coat Silver Hammertone
910860	Junction Box Receptacle, 120V, 5-15R Household, Duplex
910860	Junction Box Receptacle, 120V, 5-15R Household, Duplex
910860	Junction Box Receptacle, 120V, 5-15R Household, Duplex
910860	Junction Box Receptacle, 120V, 5-15R Household, Duplex
110908	Cord Reel Location, In Pump Module, Terminate Thru Roller Assembly on Side Pump Module, Officer's Side
Aerial	Aerial
001481	Construction and Dimensions, Rear Mount Ladder Structure (105')
911154	Ladder Specifications (105')
001837	Aerial Information Specification Plate
121500	Aerial Test, Non-Destructive Testing (NDT), Independent Third Party Certification
901000	Aerial Test, Structural Safety Factor, Stability Factor and Testing
911156	Rung Covers
001509	Ladder Travel Support/Cradle, Light, Cradle Interlock System (UT 100'/105'/107')
001514	Elevation System (UT 100'/105')
911166	Extension/Retraction System, Maintenance Free Sheaves (UT 100'/105'/107')
911168	Wear Pads/Bearing Surfaces
911172	Rotation System, Bearing/Gear Box/Interlocks (UT 100'/105')
911175	Cab / Body Damage Protection Interlock System
001632	Aerial Power Take-Off
001636	Hydraulic Pump with "Thru-Drive" (75'/100' MMA/UT100'/105'/107')

Option ID	Description
001640	Hydraulic System (UT 100'/105')
111765	Hydraulic Pressure Gauge, Rear Control Station, Inn. Cntrls, 2-1/2", Brass Case Gauge, psi 0-5000
001649	Emergency Hydraulic Pump (55'/75'/UT100'/100'MMA/105')
911194	Swivel
001805	Aerial Angle Indicator, Base Section
001807	Aerial Extension Tape
001464	Aerial Tool, Manual Rotation Drive Tool
007719	Torque Box, Painted Black, AkzoNobel #41878 (105'/107')
010207	Stabilizers, Front and Rear "H" Style, 16' Spread, Standard Stroke, WITH Stabilizer Pins (105')
911178	Stabilizer Extension System (105'/UT100'/107')
001594	Stabilizer Angle Level Gauges (2)
001603	Ground Control System, Electric Over Hydraulic Controls, Front and Rear Stabilizers, Lower Center Rear, Horizontal, Brushed Stainless Doors
001597	Stabilizer 1" Auxiliary Pads (4) with Racks Below Body <i>Shop Note:</i> <i>Mount (2) LS/RS behind rear stabilizers</i>
007609	Stabilizer Cover Warning Lights (4), Whelen, 600 Series Super-LED (60R02FRR), Red, Activated with Aerial Master
008768	Stabilizer Arm Warning Lights (8), Whelen, 5G Series Super-LED (5GR00FRR), Red
003737	Stabilizer Work Lights (4), Truck-LiteLED (81380), Clear
UPOxxxxxxx	Turntable, Standard (105') Bottom Walking Surface to be Black Line-X Coated
008307	Turntable Handrails, Ribbed Rubber SS, Standard Turntable, (2) Openings
008344	Turntable Restraints, (2) ManSaver Bars
008037	Turntable Work Lights (4), Whelen LED, 0AC0EDCR
001614	Ladder Hour Meter, At Turntable
007390	Turntable Control Console, Painted, AL-11, IC Panel, On-Scene Light Under Lid (55'/75'/105'/125')
111973	System Lock Control, Red Mushroom Switch on Turntable Console
008025	Retraction Override Safety System, Switched Through AL-11
007407	Load Sensing System, Programmed into AL-11
008264	Load Chart (105')
008026	Communication System, 3-Way, Pump Panel-Turntable-Tip, FRC Always Clear Talking (ACT) (ICA900-213)
111832	Tracking Lights (2), 12V, On Front of Cradle, FRC LED SoBrite (SRA110-07A)
111842	Tracking Lights Switch, AL-11
001492	Egress, Bolt-On, Standard (105'/100' MMA)
007921	Ladder Creeper Controls at Tip, Switched Through AL-11 (105'/125')
001505	Folding Steps on Fly Section (55'/75'/100' MMA/105'/107'/125')
911157	Load Lifting/Rappelling Eyes on Fly Section
007797	Axe Mounting Bracket (1), Fly Section, WITH Flat Head Axe (FA6)

Option ID	Description
111863	Tip Lights (2), 12V, FRC, LED SoBrite (SRA110-07A)
911218	Tip Lights Locations, Ladder Tip, Both Sides
111883	Tip Light(s) Switch, AL-11
911201	Waterway System (UT 100'/105')
007925	Positional Waterway, Switched Through AL-11 (75'/100' MMA/UT 100'/105')
001713	Waterway Relief Valve / Drain Valve
111770	Flow Meter with Paddle Wheel, FRC Insight Ultimate, 4", Turntable
001717	Waterway Inlet, Rear, 4" Inlet and 4" Plumbing (UT 100'/105'/107)
101347	Valve, 4", Akron, Electric, 8940, Composite Ball, 9333 Navigator Pro Controller (Valve Only)
101250	Intake Relief Valve, Aerial, Elkhart, Factory Preset
007744	Bushing, 4" NST - NH Cap (HCC2814AC), Chrome, South Park
112156	Aerial Monitor, Electric, Elkhart, Cobra EXM2 7250X2, WITH Stow Signal Output
112069	Monitor Finish, Elkhart EXM Anodized Gray
003552	Nozzle, Electric, Elkhart X-Stream 1250 GPM, SM-1250E, 3-1/2" NH
911204	Monitor Sweep, Ladder, Single Monitor
911209	Master Stream Controls, Turntable and Ladder Tip
112116	Valve Under Monitor (VUM), TFT, Electric, (1) 2-1/2" NST Left Gated Discharge, With Drain, AKE13-B181D
008326	Rope Rescue Package
111925	Rung Lighting, Blue LED (105')
111933	Rung Lighting Switch, AL-11
007022	Ladder Signs (2), On Base Section
111956	Pike Pole Storage, Officer's Side Fly Section, 6' Pole
111962	Solid Beam Roof Ladder Storage, Driver's Side Fly Section, Special Width Ladder
008200	Ladder (1), Duo-Safety, 16' Aluminum Roof (Special Width), 875-A
Paint / Striping / Decals	<u>Paint / Striping / Decals</u>
900717	Chassis Paint, Chassis Manufacturer Painted, Single Tone
009165	Body Paint, Single Tone, Aerial, Aluminum Material
008907	Body Paint Color, Aerial, Single Tone, Red, AkzoNobel #32545
008794	Aerial Ladder Paint Color, White, AkzoNobel #41876, 75 RMA, 105', UT 100', 107
901036	Aerial Corrosion Protection
000968	Aerial Egress Paint, Red, AkzoNobel #32035
911225	Ladder Sign Paint, Match Aerial Ladder Structure Color
001170	Under Body Finish, Two-Step Undercoating Process
006089	Corrosion Protection, Electrolysis Corrosion Control (ECK)
900875	Coating Material Technical Specification, Bedliner Coating
001033	Sample Paint Card with Paint Formula
911237	Reflective Lettering, White
004523	Rub Rail Striping, 2", Silver, Reflective, Aerial
008704	Body Striping, Aerial, 1"-6"-1", High Angle Transition

Option ID	Description
900881	Upper Stripe Color, Black
900900	Main Stripe Color, Blue
900917	Lower Stripe Color, Black
121752	Stabilizer Beam Striping, Front and Rear, (4) Stabilizers, 4" Reflective Striping, White
900935	Chevron Color, Red / Fluorescent Yellow-Green, 3M 1172EC & 3983
007383	Chevron Layout, Rear Body Surface, Torque Box Lap Door, Ladder Storage Doors
Warranties	<u>Warranties</u>
RFW0002	General Two (2) Years or 36,000 Miles Limited Warranty
RFW0502	Body Structure (Aluminum) Ten (10) Years or 100,000 Miles Limited Warranty
RFW0403	Aerial Ladder Structure Twenty (20) Years or 100,000 Miles Limited Warranty
RFW0421	Aerial Leak-Free Hydraulics Three (3) Years or 48,000 Miles Limited Warranty
RFW0810	Aerial Waterway Ten (10) Years or 100,000 Miles Limited Warranty
RFW0202	Electrical Two (2) Years or 36,000 Miles Limited Warranty
RFW0800	Plumbing and Piping (Stainless Steel) Ten (10) Years or 100,000 Miles Limited Warranty
WLF810	Warranty, Water Tank, Pro Poly, Standard Lifetime
RFW0710	Paint and Finish (Exterior Clear coated) Ten (10) Years Limited Warranty
W05810-A	Warranty, Pump, Waterous, Standard 7 Year

Option ID:100973 QTY:1

Smeal Branded Badging and Logo's

Smeal branded badging and Logo's shall be supplied.

Option ID:900998 QTY:1

Intent of Specifications, Aerial, Pump

INTENT OF SPECIFICATIONS

It is the intent of these specifications to cover the furnishing and delivery to the purchaser of a complete apparatus equipped as herein specified. With a view to obtaining the best results and the most acceptable apparatus for service in the fire department, these specifications cover the general requirements as to the type of construction, together with certain details as to finish, equipment, and appliances with which the successful bidder must conform. Minor details of construction and materials where not otherwise specified are left to the discretion of the contractor, who shall be solely responsible for the design and construction of all features.

Bids shall only be considered from companies that have an established reputation in the field of fire apparatus construction and have been in business for a minimum of 50 years.

Each bidder shall furnish satisfactory evidence of his ability to construct the apparatus specified. The bidder shall also show that they are in a position to render prompt service and furnish replacement parts for said apparatus.

Aerials containing load ratings and capabilities of the highest level within the respective model class shall be accepted. Bids submitted containing medium duty or light duty aerial ladders shall not be considered as meeting minimum requirements and will automatically be rejected.

CONTRACTOR'S SPECIFICATIONS

Each bid shall be accompanied by a set of "Contractor's Specifications" consisting of a detailed description of the apparatus and equipment proposed and to which the apparatus furnished under contract shall conform.

These specifications shall indicate size, type, model, and make of all component parts and equipment.

The submitted bids shall clearly describe the capabilities of the aerial device. Items such as safety factor certification, horizontal reach, vertical reach, scrub chart information, load capabilities, flow ratings, monitor capabilities, short set capabilities, safety interlock information, estimated completed weight information and other pertinent information shall be either submitted with the bid or readily available if requested.

TIMELY PROPOSALS

It is the bidder's responsibility to see that their proposals arrive on time. Late proposals, facsimiles, e-mails, telegram, or telephone bids shall not be considered.

DRAWINGS

All bid drawings shall be stamped PROPOSAL.

- A total of six (6) drawings shall be supplied. The provided drawings can be printed to any paper size, but the scale will only be valid when printed to the paper size listed in the title block
- Drawings shall show five (5) views: left (drivers), right (officers), front, rear, and top
- OAL (overall length) in feet and inches. The estimated length shall be rounded up to the nearest inch
- OAH (overall height) in feet and inches. The estimated height shall be rounded up to the nearest inch
- Wheelbase in inches
- Pump house width in inches
- Front of the body to the centerline of the rear axle in inches
- Front and rear overhang in inches
- Angle of approach and departure
- Roll up doors will be shown in open position. Lap doors will be shown in the closed position
- Compartment dimensions shall be shown in a table on the drawing. The table shall display
 1. Clear door opening - The width/height of the clear door opening
 2. Interior dimensions - The interior compartment dimensions excluding any accessories or pockets (i.e. roll up door drums, hard suction hose pans, suspension pockets, etc.)
 3. Divide heights - The measurement where the compartment changes from full depth to shallow depth
 4. Compartment depths - Depth of the compartment with the door closed
- Ground ladders shall be labeled with a letter designation referring to the table for an explanation of the ladder
- No pump panel or instrument panel controls, discharges or inlets shall be shown. The panel space is to be left blank and labeled "Pump Panel"
- Rear plumbing, such as 2-1/2" discharges, rear steamers, and direct tank fills, shall be shown
- Water tank outline (if applicable)
- Water tank and foam cell fill towers (If applicable)

- Generator outline (if applicable)
- Warning lights
- D.O.T. lights

Text Block Items

- Chassis make/model
- Fire pump make/model
- Water tank capacity (if applicable)
- Foam cell capacity (if applicable)
- Body material
- Hose bed capacity in cubic feet (if applicable)
- Total compartment cubic feet
- Utilize an unique bid number
- Drawings shall be printed on white paper with black ink

PURCHASER'S OBLIGATIONS

The purchaser reserves the right to accept or reject any or all bids on such basis as the purchaser deems to be in its best interest. All bidders shall be advised that the purchaser is not bound in any manner to automatically accept the lowest bid. The purchaser shall only be obligated to purchase the lowest bid that meets these detailed specifications as closely as possible.

SPECIALIZATION

Due to the complexity of the apparatus proposed, it is the desire of the purchaser to obtain equipment that is built by companies that specialize in the construction in accordance with NFPA 1901, current edition compliant aerial devices.

The aerial device shall be engineered and fabricated by a manufacturer with a minimum of 40 years of experience in the aerial field. No exceptions shall be allowed.

No prototype devices or aerals without a proven field record shall be acceptable. The aerial device provided shall be of the highest quality available in the industry.

SAFETY REQUIREMENTS

It is required that the bidder shall meet all State and Federal safety standards and laws that are in effect on the date of the bid for the item(s) that are specified and the particular use for which they are meant.

ACQUAINTANCE WITH SPECIFICATIONS

It is the responsibility of the bidder to review all of the bidding requirements. Failure of a bidder to be acquainted with this information shall not relieve them from any obligations of the bid requirements.

QUALITY AND WORKMANSHIP

The design of the apparatus shall embody the latest approved automotive engineering practices. Experimental designs and methods shall not be acceptable.

The workmanship shall be of the highest quality in its respective field. Special consideration shall be given to the following points: accessibility of the various units that require periodic maintenance, ease of operation (including pumping and driving), and symmetrical proportions.

Construction shall be rugged and ample safety factors shall be provided to carry loads as specified.

GENERAL CONSTRUCTION

The complete apparatus, assemblies, sub-assemblies, component parts etc., shall be designed and constructed with due consideration to the nature and distribution of the load to be sustained and to the general character of service which the apparatus is to be subjected when placed in service.

All parts of the apparatus shall be strong enough to withstand the general service under full load. The apparatus shall be so designed that the various parts are readily accessible for lubrication, inspection, adjustment, and repair.

The apparatus shall be designed and constructed, and the equipment mounted, with due consideration to the distribution of the load between the front and rear axles, and side to side loading that all specified equipment, including a full complement of specified ground ladders, full water tank, loose equipment, and firefighters; shall be carried without overloading or damaging the apparatus in accordance with NFPA 1901, current edition requirements.

LIABILITY

The bidder, if their bid is accepted, shall defend any and all suits and assume all liability for the use of any patented process, device or article forming a part of the apparatus or any appliance furnished under the contract.

WARRANTY

A copy of the warranties for the chassis, pump, body, paint, water tank (if applicable), aerial device, waterway, and waterway seals shall be furnished with each bidder's proposal.

INFORMATION REQUIRED UPON DELIVERY

The manufacturer shall supply at the time of delivery at least two copies of a complete operation and maintenance manual covering the completed aerial device as delivered.

Parts manuals, where possible, shall be cross-referenced to show the actual manufacturer's name, part number and description on all parts and fittings that are commercially available.

DESIGN / CONSTRUCTION / TESTING CRITERIA

The following criteria shall be applicable to this specification to the extent specified herein:

- NFPA 1901, Current Edition
- American Society for Testing and Materials (ASTM A-36)
- Society of Automotive Engineers, Inc. (SAE) "SAE Handbook"
- American Welding Society (AWS) AWSO 14.4-77
- American Welding Society (AWS) D1.1 and D1.2
- American Society of Non-Destructive Testing (ASNT) "ASNT CP-189"

The aerial ladder shall be designed, fabricated, and tested in accordance with the above codes and specifications, as well as all other applicable codes, standards, and specifications that may be referenced by any of the above.

NON-DESTRUCTIVE TESTING

Steel ladders, turntable, stabilizers, and torque box shall have 100% of all welds tested using both magnetic particle method and visual testing method. Aerials that are fabricated of aluminum shall have 100% of all welds tested using dye penetrant method and visual method. All testing shall be performed by certified technicians, which are employees of an independent nationally recognized and certified third-party testing company. Manufacturers who rely on visual inspection (either in-house or by a third party) as the primary method of testing, and magnetic particle or dye penetrant as a secondary or "proving" test method for only suspect areas shall not be acceptable. In

any case, welds shall be tested using two (2) separate NDT inspection methods regardless of the material used to construct the aerial device.

THIRD PARTY CERTIFICATION

All bids shall include copies of the certification of testing of the aerial device. The purchaser desires a device that has been tested by a third party for compliance with the minimum 2 to 1 safety factor specified in accordance with NFPA 1901, current edition. Devices that have not been certified by a third party engineering firm that is independent of the manufacturer shall not be acceptable, no exceptions.

AERIAL DEVICE SAFETY FACTOR AND RATED CAPACITY

The purchaser desires to purchase, using these specifications, an aerial device with a minimum 2.0:1 Safety Factor as required and defined in accordance with NFPA 1901, current edition. Therefore, the aerial manufacturer shall hereby certify, by submitting a bid for these specifications that the aerial device meets or exceeds all requirements and conditions in these specifications, no exceptions.

BID FORMS / SPECIFICATIONS

All bid forms shall be submitted on the attached bid form. The bid form and/or these specifications shall be filled out by checking either the "YES" or "NO" column for each and every section/paragraph. Failure to use this form and/or these specifications shall be cause for immediate rejection of any bid.

EXCEPTION TO SPECIFICATIONS

The following chassis, pump, and body specifications shall be strictly adhered to. Exceptions shall be allowed if they are equal to or superior to that specified and provided, they are listed and fully explained on a separate page entitled "EXCEPTIONS TO SPECIFICATIONS". Exception lists shall refer to the specification page number. Each check in the "NO" column shall be listed and fully explained. Where no check is made in a particular paragraph either "YES" or "NO", it shall be assumed the bidder is taking exception to that paragraph. If a paragraph contains an empty column, where the bidder neglected to check the proper "YES" or "NO" column, it is assumed the bidder is not conforming to the requirements of this paragraph. If no explanation is given in the "EXCEPTIONS TO SPECIFICATIONS" document, the bid is subject to immediate rejection.

PROPOSALS TAKING TOTAL EXCEPTION TO THESE SPECIFICATIONS WILL BE IMMEDIATELY REJECTED.

The buyer is aware that all bidders shall have to take some exceptions, therefore; **BIDDERS THAT TAKE NO EXCEPTIONS shall BE REQUIRED TO MEET EVERY PARAGRAPH TO THE FULLEST EXTENT SHOULD THEIR BID BE ACCEPTED.** It is the intent of the purchaser to receive bids that do not require telephone calls or other communications to ascertain what a bidder is intending to supply.

Upon delivery, the apparatus shall be inspected against these specifications and not those supplied by the bidder with their proposal. Deviations shall not be acceptable unless noted as exceptions at the time of bid. The apparatus shall be rejected until said deviations are corrected to the satisfaction of the buyer.

Decisions regarding equal to or better than shall be the sole responsibility of the recipient of the bids rather than companies submitting bids. All deviations, regardless of significance, must be explained in the "EXCEPTIONS TO SPECIFICATIONS" section of the bid.

When exceptions are not taken but inconsistencies are noted in the submitted detailed specifications, the bid may be rejected.

ROADABILITY

The apparatus, when fully equipped and loaded, shall be capable of the following performance while on dry paved roads that are in good condition:

- Accelerating from 0 to 35 mph within 25 seconds on a 0 percent grade
- Attaining a speed of 50 mph on 0 percent grade
- Maintaining a speed of at least 20 mph on any grade up to and including 6 percent
- The maximum top speed of the apparatus shall not exceed the tire manufacturer's maximum speed rating for the tires installed on the apparatus

FAILURE TO MEET TESTS

In the event the apparatus fails to meet the test requirements of these specifications on the first trials, second trials may be made at the option of the bidder within 30 days of the date of the first trials.

Such trials shall be final and conclusive and failure to comply with these requirements shall be cause for rejection. Failure to comply with changes as required to conform to any clause of the specifications within 30 days after notice is given to the bidder of such changes, shall be cause for rejection of the apparatus.

Permission to keep or store the apparatus in any building owned or occupied by the department during the specified period, with the permission of the bidder, shall not constitute acceptance.

PROPOSAL SEQUENCE

Bid specifications shall be submitted in the same sequence as these specifications for ease of checking compliance. No exceptions shall be allowed to this requirement. The apparatus committee intends to be thorough during the evaluation of bids process. In order to maximize efficiency and minimize time to thoroughly evaluate all received bids, this requirement must be strictly enforced.

AWARD OF CONTRACT

All bids submitted shall be valid for a minimum of 30 days during which time bid securities submitted with the proposals shall be held by the purchaser. Criteria for the award shall include, but not be limited to, the following:

- Apparatus Performance And Safety Levels / Considerations
- Completeness of proposal
- Accuracy of accompanying data
- Past performance of bidder
- Compliance with the detailed specifications
- Compliance with purchasers request(s) for personnel qualifications or certifications
- Exceptions and clarifications
- Financial stability of bidder
- Local representation of the manufacturer
- Serviceability of the proposed apparatus
- Service capabilities of the bidder's local representative
- Compliance with NFPA 1901, current edition
- Any other factor the purchaser deems relevant

After the evaluation and award process is complete, all bidders shall be notified of the results and securities shall be returned.

Option ID:911059 QTY:1

Bidding Prerequisites, United States

PREREQUISITE BIDDING REQUIREMENTS

Any manufacturer submitting a proposal or bid, to these specifications, shall meet the following conditions:

- The manufacturer of the apparatus herein specified, shall be wholly owned (100%) and managed by a Company, Corporation, and/or Parent Company that is wholly based and permanently resides in the United States of America.
- The Company, Corporation, and/or Parent Company, and all assets belonging to such, shall be wholly owned and managed (100%) by the entities specified above.

Any proposal, bid, or response to these specifications by any foreign based, owned, or managed (in part or in whole) Company, Corporation, and/or Parent Company shall be cause for immediate rejection. Any proposal, bid, or response to these specifications by any Company, Corporation, and/or Parent Company, that is owned, operated, managed, or held in contract, in part or wholly by a partnership or other agreement, shall be cause for immediate rejection.

Exceptions to these conditions will not be allowed under any circumstances.

Option ID:911060 QTY:1

Standards Version, NFPA 1901-2016

NFPA 1901-2016

The National Fire Protection Association "Standard for Automotive Fire Apparatus", 2016 edition, is hereby adopted and made a part of these specifications, the same as if it were written out in full detail, with the exception of the section dealing with "Equipment Recommended for Various Types of Apparatus". Bidders shall provide the equipment requested herein and the buyer shall supply the rest before the apparatus is put into service. It is the intent of the purchaser to purchase an apparatus that meets 100% of the minimum standards defined and outlined in NFPA 1901-2016 edition. There are to be no exceptions to this requirement.

Option ID:911064 QTY:1

Inspection Certificate, NFPA 1901 Compliance

INSPECTION CERTIFICATE - NFPA 1901 COMPLIANCE

An OEM inspection certificate for the apparatus shall be furnished upon delivery. The purpose of this NFPA 1901 compliance inspection shall be to serve as proof to the customer that all applicable standards have been met or exceeded by the responsible manufacturer.

The following objectives shall be achieved as a result (this listing shall not be construed as being all inclusive):

- Ensure that understanding of all parties respective responsibilities have been addressed by the actual referencing of NFPA 1901 and the amendments in these specifications and the purchase contract and documentation.
- Ensure that only structural materials complying with appropriate standards and codes are used for construction.
- Ensure the applicable standards of design and manufacturing have been met or exceeded.
- Ensure that safety factors have been met or exceeded where required.
- Ensure that applicable standards for testing and inspection have been met or exceeded by personnel with the appropriate qualifications, experience, and certifications.
- Ensure that where applicable components, equipment, and loose equipment carry the appropriate characteristics, classifications, and/or certifications.
- Ensure that in general and as a whole, all applicable requirements set forth in NFPA 1901, and those codes, standards, and specifications referenced by said parties are met, exceeded, and/or addressed.

Option ID:911070 QTY:1

Documentation, NFPA

CONSTRUCTION DOCUMENTATION

The contractor shall supply, at the time of delivery, at least one (1) copy of the following documents:

1. The manufacturer's record of apparatus construction details, including the following information:

- Owners name and address
- Apparatus manufacturer, model, and serial number
- Chassis make, model, and serial number
- GAWR of front and rear axles
- Front tire size and total rated capacity in pounds or kilograms
- Rear tire size and total rated capacity in pounds or kilograms
- Chassis weight distribution in pounds with water and manufacturer mounted equipment (front and rear)
- Engine make, model, serial number, rated horsepower, related speed, and governed speed
- Type of fuel and fuel tank capacity
- Electrical system voltage and alternator output in amps
- Battery make, model, and capacity in cold cranking amps (CCA)
- Chassis transmission make, model, and serial number; and if so equipped, chassis transmission PTO(s) make, model, and gear ratio
- If applicable, the pump make, model, rated capacity in gallons or liters per minute, and serial number
- Pump transmission make, model, serial number, and gear ratio, if unit is equipped with a pump
- If applicable, the auxiliary pump make, model, rated capacity in gallons or liters per minute, and serial number
- Water tank certified capacity in gallons or liters
- On aerial apparatus, the device type, rated vertical height in feet or meters, rated horizontal reach in feet or meters, and rated capacity in pounds or kilograms
- Paint manufacturer and paint number(s)
- Company name and signature of responsible company representative

2. Certification of slip resistance of all stepping, standing, and walking surfaces

3. If the apparatus has a fire pump, a copy of the following shall be provided: pump manufacturers certification of suction capability, apparatus manufacturers approval for stationary pumping applications, engine manufacturers certified brake horsepower curve showing the maximum governed speed, pump manufacturers certification of the hydrostatic test, and the certification of inspection and test for the fire pump

4. If the apparatus has an aerial device, the certification of inspection and test for the aerial device, and all the technical information required for inspections to comply with NFPA 1914, Standard for Testing Fire Department Aerial Devices

5. If the apparatus has a fixed line voltage power source, the certification of the test for the fixed power source

6. If the apparatus is equipped with an air system, test results of the air quality, the SCBA fill station, and the air system installation

7. Weight documents from a certified scale showing actual loading on the front axle, rear axle(s), and overall fire apparatus (with the water tank full but without personnel, equipment, and hose)

8. Written load analysis and results of the electrical system performance tests

9. When the apparatus is equipped with a water tank, the certification of water tank

capacity

OPERATION AND SERVICE DOCUMENTATION

The contractor shall supply at the time of delivery, at least two (2) sets of complete operation and service documentation covering the completed apparatus as delivered and accepted. The documentation shall address at least the inspection, service, and operations of the fire apparatus and all major components thereof. The contractor shall also provide documentation of the following items for the entire apparatus and each major operating system or major component of the apparatus:

- Manufacturers name and address
- Country of manufacturer
- Source of service and technical information
- Parts and replacement information
- Descriptions, specifications, and ratings of the chassis, pump, and aerial device
- Wiring diagrams for low voltage and line voltage systems to include the following information: representations of circuit logic for all electrical components and wiring, circuit identification, connector pin identification, zone location of electrical components, safety interlocks, alternator-battery power distribution circuits, and input/output assignment sheets or equivalent circuit logic implemented in multiplexing systems
- Lubrication charts
- Operating instructions for the chassis, any major components such as a pump or aerial device, and any auxiliary systems
- Precautions related to multiple configurations of aerial devices, if applicable
- Instructions regarding the frequency and procedure for recommended maintenance
- Overall apparatus operating instructions
- Safety considerations
- Limitations of use
- Inspection procedures
- Recommended service procedures
- Troubleshooting guide
- Apparatus body, chassis, and other component manufacturers warranties
- Special data required by this standard
- Copies of required manufacturer test data or reports, manufacturer certifications, and independent third-party certifications of test results
- A material safety data sheet (MSDS) for any fluid that is specified for use on the apparatus
- One (1) copy of the FAMA Safety Guide

The contractor shall deliver with the apparatus all manufacturers operations and service documents supplied with components and equipment that are installed or supplied by the contractor.

STATEMENT OF EXCEPTIONS

The proposed apparatus as described in this specification document and all related material with the bid package shall meet or exceed all applicable sections for the category of apparatus as defined by NFPA 1901 unless specifically noted within this specification or other official documents associated with this bid.

Should any area, section or portion of the apparatus not meet the intent and applicable

requirements, a clearly defined listing or explanation of what and why compliance was not achieved shall be provided to the purchaser at the time of delivery.

Option ID:980016 QTY:1

Owner's Manuals, Electronic, (1) USB Drive

OWNER'S MANUAL

An owner's manual containing the construction, operation, and service documentation shall be provided on a USB Drive. One (1) copy of the USB shall be provided with the apparatus.

ELECTRICAL MANUAL

A complete electrical manual for the apparatus shall also be provided on the USB Drive. This manual shall be specifically prepared for this individual unit rather than a generic schematic manual designed to accommodate all apparatus. The electrical manual shall also include electrical schematics, harness layouts, V-Mux specifications (including Node Input/output Spreadsheet and Node Relationship Spreadsheet), and Master Wire Listing. A contact letter shall also be provided by the electrical engineer, who built the manual, with instructions on using the manual and contact information for assistance with electrical manual questions.

ELECTRICAL SCHEMATICS

A section of the electrical manual shall include schematics of the electrical system and components on the apparatus. These schematics shall be specifically prepared for this individual unit rather than a generic schematic designed to accommodate all apparatus.

PUMP PLUMBING SCHEMATICS (if applicable)

A section of the electrical manual shall include a schematic of the pump plumbing. This schematic shall be specifically prepared for this individual unit rather than a generic schematic designed to accommodate all apparatus.

HYDRAULIC SCHEMATICS (if applicable)

A section of the electrical manual shall include schematics of the hydraulic components on the apparatus including but not limited to:

- Ladder Rack(s) and Hose Bed Door(s) (if applicable)
- Aerial - Retraction/Extension (if applicable)
- Aerial - Rotation (if applicable)
- Tiller - HVAC Hydraulics System (if applicable)

FIRE APPARATUS SAFETY GUIDE

One (1) printed copy of the FAMA Fire Apparatus Safety Guide shall be provided with the apparatus. This guide provides safety instructions for operations of the fire apparatus.

Option ID:901037 QTY:1

Aerial Operations/Parts/Maintenance Manuals, (1) Printed Copy, (1) USB Drive

AERIAL OPERATION/PARTS/MAINTENANCE MANUALS

One (1) printed aerial operation and maintenance manual shall be provided with the apparatus at the time of delivery. These manuals shall be written in a "step by step" format for ease of reference. One (1) USB shall be provided with a digital copy of the aerial manuals included with the printed version. Finally, a digital version of the aerial manuals will also be included with the complete Owner's Manual USB for the apparatus.

Information included in the manuals shall include, but no be limited to the following:

1. Manufacturer Defined Terminology; (to help impart full understanding of terminology used in the manuals)
2. Safety Information and Warnings; (to warn of dangerous conditions/personnel injury/equipment damage)
3. Complete Rated Capacities Information; (allowable loads and GPM flows)
4. Complete and Detailed Operating Systems Descriptions; (to impart understanding of operation/capabilities/working principles)
5. Instruction For Manufacturer Recommended Deployment and Operation Of All Systems During All Specific Conditions; (to ensure safer, more efficient operation of the aerial device)
6. Current, Actual Illustrations Of Aerial Components Throughout The Manual; (to aid in location of specific components, being addressed in the manual)
7. Complete Maintenance Instructions/Methods/Materials/Intervals/Inspections.

Option ID:121744 QTY:1

Aerial Demonstration, Aerial Ladder, (3) Consecutive Days

AERIAL LADDER DEVICE DEMONSTRATION - (3) DAYS

A factory trained and authorized instructor shall provide three (3) consecutive days of on-site classes after apparatus acceptance.

Topics covered in the class shall include:

- General familiarization and demonstration of aerial device
- Aerial apparatus safety including a review of all safety devices, interlocks, and operational hazards
- Positioning and locating the vehicle for safe operations
- Chassis parking brakes and engagement of hydraulic system
- Deployment of stabilization devices and use of ground pads
- Operation of elevation, extension, and rotation of the aerial device
- Operation of waterway, nozzle, and other firefighting devices of aerial device
- Operation and use of breathing air system
- Specific aerial device maintenance and service areas for operators
- Shutdown and return to service operations
- Operation of tip controls and platform controls if equipped

Classes shall consist of presentations as well as hands-on demonstration.

Option ID:911081 QTY:1

Misc. Equipment Allowance, 2,500 Lb.

MISCELLANEOUS EQUIPMENT ALLOWANCE

The Gross Axle Weight Rating (GAWR) and the Gross Combined Weight Rating (GCWR) or Gross Vehicle Weight Rating (GVWR) of the chassis shall be adequate to carry the weight of the unequipped apparatus with the water tank and other tanks full, specified hose load, unequipped personnel weight, ground ladders, and miscellaneous equipment allowance of 2,500 pounds.

Option ID:901080 QTY:1

Tilt Table Test, Not Required, Chassis ESC

TILT TABLE TESTING NOT REQUIRED

The chassis of the apparatus is equipped with Electronic Stability Control (ESC), which is in accordance with NFPA 1901, current edition requirement of maintaining a stability of 26.5 degrees in both directions.

VEHICLE STABILITY

The apparatus shall comply with the requirements of NFPA 1901 as it applies to vehicle stability. The particular apparatus as described in the specification provided within the

bid package shall be classified into one of the following categories:

- The apparatus shall go through actual tilt table testing which shall be determined by the apparatus manufacturer.
- The apparatus shall be equipped with a rollover stability control system as defined in section 4.13.1.2 of NFPA 1901.
- The apparatus shall be deemed a similar apparatus and meeting the intent of section 4.13.1.1.2 of NFPA 1901.

Option ID:980012 QTY:1

Pump Certification, Independent Third Party

INDEPENDENT THIRD PARTY PUMP CERTIFICATION

The fire pump shall be tested and certified by an independent third party testing company. Tests shall be conducted so that the pump performs as listed below:

- 100% of rated capacity at 150 pounds net pressure
- 70% of rated capacity at 200 pounds net pressure
- 50% of rated capacity at 250 pounds net pressure
- 100% of rated capacity at 165 pounds net pressure

The entire pump, both suction and discharge passages, shall be hydrostatically tested to a pressure of 600 PSI. The pump shall be fully tested at the pump manufacturer's factory to the performance spots as outlined in accordance with NFPA 1901, current edition. The pump shall be free from objectionable pulsation and vibration.

Option ID:911066 QTY:1

Pump Certification Measure, U.S. GPM

PUMP CERTIFICATION

The pump shall be certified in U.S. gallons per minute (GPM).

Option ID:911304 QTY:1

Apparatus Production Photos

ONLINE CUSTOMER INTERACTION

Smeal Holding LLC. shall provide the capability for online access.

The fire department shall be able to view digital photos of their apparatus in the specified phases of construction.

The following phases will be captured and displayed:

- Chassis arrival to the OEM
- Fabrication
- Pump and Plumbing
- Paint
- Assembly
- Completion of production

The photos shall be uploaded to a secure website, only accessible to the customer and representatives of the OEM.

Option ID:911073 QTY:1

Pre-Construction Meeting, OEM Factory

PRE-CONSTRUCTION MEETING

A pre-construction meeting shall be held at the apparatus manufacturer's factory. Fire department personnel, dealer representative(s) and factory representative(s) shall be present during the pre-construction meeting process. The purpose of conducting this meeting at the factory is to allow the fire department personnel to see various features of or similar components on other apparatus that may be found on the production floor. The pre-construction meeting is the most important meeting during the after-sale production process. The purpose of this meeting is to finalize all aspects of the specifications, discuss and clarify all design details of the apparatus, and to share or provide all information so all parties are in agreement on the apparatus being constructed. The ultimate goal of the pre-construction meeting is for the fire department officials, dealer representative(s), and factory representative(s) to discuss and clarify all aspects of the proposed apparatus and to provide all necessary information to the apparatus manufacturer that will ensure the apparatus is built to the satisfaction of all parties involved.

The apparatus manufacturer shall create and forward to the dealer a "Pre-construction" document containing the following items:

- Complete specifications of the apparatus including the chassis
- Detailed amp draw report
- Listing of clarifications or questions from the manufacturer that require attention (shelf locations, lettering details, etc.)
- A pre-construction drawing shall be provided that encompasses all views on a single page

During this pre-construction meeting, any changes or clarifications must be documented on a manufacturer issued change order. The change order shall be signed by the customer and dealership and ultimately by the apparatus manufacturer. The change order becomes an extension of the contract with the official signatures of all three parties. All change order items resulting from the pre-construction meeting shall be implemented into the official shop order document.

Option ID:911074 QTY:1

Final Inspection, OEM Factory, Required

FINAL INSPECTION

The department/dealer representative will inspect the final apparatus prior to it leaving the apparatus body manufacturer's facility. This will allow any changes that may be required, to be done so in a timely manner. After leaving the facility, all repairs or alterations will be performed by either the dealer or an OEM-approved service center.

Option ID:900489 QTY:1

Overall Height, 141" (11'-9")

MAXIMUM OVERALL HEIGHT

The overall height of the apparatus shall not exceed 141" (11'-9") from the ground. This measurement shall be taken with the tires properly inflated and with the apparatus in the unloaded condition to ensure a maximum overall height. In order to provide the maximum overall height, proposed units using calculated weight as a means to achieve a lower overall height shall not be accepted. The measurement shall be taken at the highest point of the apparatus.

Option ID:900255 QTY:1
Overall Length, 500 (41'-8")

MAXIMUM OVERALL LENGTH

The overall length of the apparatus shall not exceed 500" (41'-8").

Option ID:900576 QTY:1
Wheelbase, 228 (19'-0")

WHEELBASE

The wheelbase of the apparatus shall not exceed 228".

Option ID:900653 QTY:1
Angle of Approach, 8 Degrees

ANGLE OF APPROACH

The angle of approach of the apparatus shall be a minimum of 8 degrees.

Option ID:900674 QTY:1
Angle of Departure, 8 Degrees

ANGLE OF DEPARTURE

The angle of departure of the apparatus shall be a minimum of 8 degrees.

Option ID:910013 QTY:1
Custom Chassis, Spartan, Gladiator

SPARTAN GLADIATOR CHASSIS

The chassis shall be a Spartan Gladiator.

Option ID:001200 QTY:1
Mud Flaps, Front Chassis Provided, Rear OEM Provided

MUD FLAPS

In addition to the chassis supplied front mud flaps, two (2) mud flaps shall be provided rearward of the rear axles on the apparatus.

Option ID:007487 QTY:1

Extend Chassis Air Tank Drains, Outside of Body

EXTEND AIR TANK DRAIN CABLES

The chassis air tank drain cables shall be extended to the outside of the body for ease of maintenance.

Option ID:UPOxxxxxxx QTY:1

Grab Handles, (2), Mounted Vertically on Front of Chassis Cab

CHASSIS GRAB HANDLES

There shall be two (2) vertically installed grab handles on the front face of the chassis cab. They shall be installed one (1) on each side of the grill, above the headlight assemblies.

Option ID:001379 QTY:1

Heat Exchanger, Chassis Supplied and Installed

The chassis supplied and installed heat exchanger shall be attached to the pump by the OEM manufacturer.

Option ID:100964 QTY:1

Relocate Cab Tilt Pendant, Standard Location

RELOCATE CAB TILT

The cab tilt pendant shall be relocated as deemed best fit by the OEM.

Option ID:UPOxxxxxxx QTY:1

Center Front Bumper Storage Well Cover

STORAGE WELL COVER

An aluminum tread plate cover shall be installed on the storage well. The cover shall be notched to allow for the stored hose to be pre-connected.

Option ID:UPOxxxxxxx QTY:1

Map Console, 3-Slot MultiSpec to Match Cab Interior, (2) Radio Slots (Dinuba)

MAP CONSOLE

There shall one (1) map console installed in the chassis cab. The console shall have three (3) slots. The map console shall be constructed of aluminum and shall have a zolatone finish. The map consoles shall have a radio holder installed on each side.

Notch faces rearward. Position will be against the forward lip, and the box will be centered side-to-side.

Option ID:911113 QTY:1

Map Console Location, Engine Tunnel Mounted, Drop-In

The map console shall be mounted on the engine tunnel. The map console shall be mounted upright, utilizing a "drop-in" style so the maps are accessible from the top.

Option ID:008571 QTY:1

Battery Charger, Chassis Supplied, OEM Installed

The chassis supplied battery charger shall be installed by the OEM. Please specify location in the shop note.

Option ID:UPO0058220 QTY:1

No Charger Cover

No Charger Cover

Option ID:110034 QTY:1

Helmet Brackets (4), Zico, UHH-1

HELMET BRACKETS

Four (4) Zico, model UHH-1, helmet brackets shall be installed in the chassis cab. The helmet brackets shall hold both traditional and contemporary style helmets without any adjustments necessary. The brackets shall meet the 9G requirements of NFPA 1901.

Option ID:UPOxxxxxxx QTY:1

Flashlights, (4) Streamlight SL-20XP LED Rechargeable Orange w/Charger Sleeve

STREAMLIGHT FLASHLIGHTS

There shall be four SL-20LP LED (25313)rechargeable flashlights provided. They shall also come with charger sleeves to allow for recharge ability.

Option ID:111539 QTY:1

Flashlights (2), Streamlight, E-Spot LiteBox, LED, Orange, 45855, Vehicle Mount System

RECHARGEABLE FLASHLIGHTS

Two (2) Streamlight, model 45855, rechargeable LED E-Spot LiteBox flashlights shall be supplied and installed on the apparatus. Each LiteBox shall be orange in color, include one (1) Vehicle Mount System, and be wired directly to the chassis batteries.

Option ID:UPOxxxxxxx QTY:1

SCBA Compartment - Rear Facing, Behind Driver's Seat (Dinuba)

SCBA STORAGE COMPARTMENT DRIVER'S

One (1) SCBA storage compartment shall be installed in the chassis cab, behind the driver's seat. The compartment shall be sized to hold a complete SCBA. The compartment shall be constructed of aluminum and shall be hinged to allow the SCBA to be removed while standing on the ground. There shall be one (1) Zico Load and Lock SCBA bracket provided. The swing out portion of the compartment shall be secured with a compression latch.

There shall be a 3" Lip around the top perimeter of the EMS compartment to for a storage tray.

Option ID:UPOxxxxxxx QTY:1

Gear Compartment Behind Engine Tunnel, (Dinuba)

GEAR STORAGE - REAR FACING

There shall be a gear storage compartment that extends between the SCBA storage modules rearward of the engine tunnel. The top of the compartment shall provide an area for mounting equipment. The lower portion shall provide an area to store gear. Items stored in the compartment shall be secured with netting. Cam Buckles shall be used to secure the netting.

Option ID:UPOxxxxxxx QTY:1

SCBA Compartment - Rear Facing, Behind Officer's Seat (Dinuba)

SCBA STORAGE COMPARTMENT DRIVER'S

One (1) SCBA storage compartment shall be installed in the chassis cab, behind the officer's seat. The compartment shall be sized to hold a complete SCBA. The compartment shall be constructed of aluminum and shall be hinged to allow the SCBA to be removed while standing on the ground. There shall be one (1) Zico Load and Lock SCBA bracket provided. The swing out portion of the compartment shall be secured with a compression latch.

There shall be a 3" Lip around the top perimeter of the EMS compartment to for a storage tray.

Option ID:112100 QTY:1

EMS Finish, Multi-Spec to Match Cab Interior, 3 EMS Compartments

Each EMS compartment exterior, interior, and shelves shall be coated with a Multi-Spec finish to match the color of the interior chassis cab.

Option ID:110073 QTY:1

Water Tank, Pro-Poly, 400 U.S. Gallons

WATER TANK

The apparatus shall be equipped with a Pro-Poly 400 U.S. gallon water tank. Certification of the tank capacity shall be recorded on the manufacturer's record of

construction and shall be provided to the purchaser upon delivery of the apparatus. The water tank shall be constructed of Polypropylene sheet stock, a non-corrosive, stress-relieved thermoplastic material, black in color and UV-stabilized for maximum protection. The tank shall be of a special configuration and shall be designed to be completely independent of the body and compartments. All joints and seams shall feature snap-in tank components for a mechanical lock as well as extrusion welding. All joints shall be tested for maximum strength and integrity. The top of the tank shall be fitted with removable lifting eyes designed with a 3:1 safety factor to facilitate easy removal.

TANK BAFFLES

The transverse and longitudinal swash partitions shall be manufactured of Polypropylene material. All partitions shall be equipped with vent and air holes to permit movement of air and water between compartments. The partitions shall be designed to provide maximum water flow, interlock with one another, and be welded to each other and the walls of the tank.

TANK SUMP

One (1) sump shall be provided in the bottom of the tank, constructed of 1/2" black Polypropylene and be located in the driver's side front corner of the tank. Tanks requiring a front suction shall incorporate a schedule 40 polypropylene pipe with a dip tube from the front of the tank to the sump location. The sump shall be used as a combination clean out and drain and shall have a minimum 3" NPT female threaded outlet on the bottom for a drain plug. An anti-swirl plate located approximately 2-1/2" above the dip tube.

TANK FILL CONNECTION

All tank fill couplings shall be backed with flow deflectors to break up the stream of water entering the tank, and shall be capable of withstanding sustained fill rates of up to 1,000 GPM.

TANK LID

The tank cover shall be constructed of recessed and mechanically locked 1/2" thick black Polypropylene stress-relieved, UV-stabilized material. A minimum of two (2) lifting dowels shall be drilled and tapped 1/2" x 2" to accommodate the lifting eyes.

Option ID:005143 QTY:1

Water Tank Mounting, Pro-Poly, Aerials

WATER TANK MOUNTING

The water tank carrier shall be designed specifically for this apparatus. The carrier structure shall be supported by and welded directly to the top plate of the torque-box.

Option ID:002230 QTY:1

Water Tank Drain, 1-1/2" Valve, Aerials

WATER TANK DRAIN

A 1-1/2" drain valve shall be provided in the pump compartment to drain the water tank. The valve shall include a locking lever to prevent accidental draining of the water tank.

Option ID:910158 QTY:1

Water Tank Fill Tower, Pro-Poly, Black

WATER TANK FILL TOWER

The tank shall have a combination vent and manual fill tower, marked "Water Fill", located at the driver's side front corner of the tank. The fill tower shall be constructed of black 1/2" Polypropylene and be a minimum dimension of 8" x 8" at the outer perimeter. The tower shall have a 1/4" thick removable Polypropylene screen and a Polypropylene hinged-type cover.

Option ID:003589 QTY:1

Water Tank Level Gauge, Class 1 Intelli-Tank ITL-12093, Pump Operator's Panel

WATER TANK LEVEL GAUGE

One (1) Class 1 Intelli-Tank ITL water tank level gauge shall be provided on the pump operator's control panel. The water tank level gauge shall indicate the water level on an easy to read LED display and show increments of 1/8 of a tank.

The water tank level gauge shall include:

- A pressure transducer that is mounted on the outside of the tank in an easily accessible area.
- Super bright LED 4-light display with a visual indication of nine accurate levels.
- A set of weather resistant connectors to connect to the digital display to the pressure transducer and to the apparatus power.

Option ID:004776 QTY:1

Water Tank Overflow, Pro-Poly, 4"

4" WATER TANK OVERFLOW

The tank shall be equipped with a minimum of a 4" schedule 40 polypropylene overflow/air vent pipe installed in the fill tower extending through the tank and dumping behind the rear axle.

Option ID:005537 QTY:1

Foam Cell, Pro Poly, 40 U.S. Gallon

FOAM CELL

One (1) Pro-Poly 40 U.S. gallon foam cell shall be incorporated into the water tank. One (1) pressure/vacuum vent shall be installed and one (1) drain hose shall be connected to the foam cell. The drain shall have a quarter-turn valve installed inside the pump compartment and it shall drain below the frame rail of the chassis.

Option ID:910172 QTY:1

Foam Cell Type, Class A

The foam cell shall be designed for use with Class "A" foam.

Option ID:910168 QTY:1

Foam Cell Fill Tower, Pro Poly, Black

The foam cell shall have a combination vent and fill tower. The fill tower shall be constructed of black colored 1/2" thick Polyprene and shall be a minimum dimension of 8"x 8" outer perimeter. The tower shall be located in the officer's side front corner of the water tank. The tower shall have a 1/4" thick removable Polyprene screen and a Polyprene hinged-type cover.

Option ID:002929 QTY:1

Foam Cell Level Gauge, Class 1 Intelli-Tank ITL-12105, Class A Foam

FOAM CELL LEVEL GAUGE

One (1) Class 1 Intelli-Tank Class "A" foam tank level gauge shall be provided on the pump operator's control panel and shall have a label that indicates it is for the foam cell that contains the Class "A" foam. The gauge shall indicate the foam level on an easy to read LED display and show increments of 1/8 of a tank.

The foam tank level gauge system shall include the following:

- A pressure transducer that is mounted on the outside of the tank in an easily accessible area.
- Sealed foam tanks will require zero pressure vacuum vents.
- A super bright LED 4-light display with a visual indication at nine accurate levels.
- A set of weather resistant connectors to connect to the digital display, to the pressure transducer and to the apparatus power.

Option ID:003506 QTY:1

Hose Bed, EHL, Black Bedliner Coating Finish (105'/125'/RMP)

HOSE BED

The hose bed shall be located within the enclosed torque box and accessible from the rear of the apparatus. The hose bed shall allow department personnel to deploy and reload hose from ground level without the use of steps or climbing on the apparatus. Hose bed designs that require department personnel to climb on the apparatus to reload hose into the hose bed area, or that utilize hose chutes in the design, shall only be acceptable if they provide guard railings around the perimeter of reloading area and tether capabilities to protect firefighters and aid in preventing them from accidentally falling off the apparatus.

Storage capacity shall be for a minimum of 1,000 feet of 5" double-jacket or rubber, large diameter fire hose in 100' lengths. The hose shall be stored in a storage box specifically designed for ease of operation and maximum safety. The hose box shall be located within the torque box when the apparatus is in travel condition. The storage box shall contain a bottom floor, two sidewalls, and a front wall. For rapid ease of unloading hose, there shall be no rear wall. The hose storage structure shall contain a mechanical means

that shall extend and lower the storage box out the rear of the truck for ease of loading the hose. Once reloading operations have been completed the structure shall raise and retract into the bedded condition.

The aerial hydraulic pump shall be the power source for the mechanical operational functions of the storage box system. The operational control shall consist of an electric switch that shall be located at the rear of the apparatus for ease of operation. When the box is fully extended and lowered to reload position, it shall extend out the rear of the apparatus approximately 12' 6". For ease of reloading hose, the top portion of the storage box shall be no higher than 50" from ground level when in the reload position while on flat terrain. A hydraulic motor pinion gear assembly shall be utilized for the extension/retraction function. One hydraulic cylinder shall be utilized for the lowering/raising function. Provisions shall allow for this system to be manually positioned to the travel position should a mechanical malfunction occur.

The extending substructure shall consist of heavy-duty steel structural members. The storage box shall be fabricated from 3/16" aluminum. The approximate dimensions shall be 144" long x 15-1/2" high x 32" wide. Drain holes shall be located in the bottom of the aluminum storage box. The interior of the hose bed shall be coated with black Bedliner Coating, a thermoplastic polyurethane coating.

Two flashing warning lights shall be installed, one (1) each side on the end of the substructure tubes that alert personnel of the deployed position of the hose box structure. An aluminum side safety shield shall be installed designed to keep items from being caught and damaged when the structure is being lowered and raised. There shall be a 4" white reflective striping secured to the safety shield to alert motorist during night operations.

Nylon wear pads impregnated with molybdenum disulfide and high in molecular weight shall be used between the telescoping sections for maximum weight distribution, strength, and smoothness of operation. The system shall be designed in such a manner to only allow activation of the down function after full-extension has been achieved. The retraction function will not be activated until the maximum upward travel has been reached.

The torque box enclosure door shall not be connected to the open door warning light system. The hose bed shall include a separate warning light in the cab to specifically warn the driver that the hose bed structure is not in the stowed position. The inside, upper portion of the torque box area shall be free of items that may cause interference with the rapid deployment of the hose. The design shall ensure that hose couplers do not bind up or get caught during the deployment operation.

The floor of the hose bed shall be constructed of Dura-Dek fiber reinforced plastic material to prevent the accumulation of water and to allow ventilation to aid in drying hose. The flooring shall be fabricated of "T" beam pultrusions in parallel connected with cross slats that are first mechanically bonded and then epoxied, forming a large sheet. The top portion of each "T" cross section shall measure 1-1/4" wide and 3/16" thick with beaded ends. The vertical portion shall be 3/8" thick, beading out at the bottom to a thickness of 1/2" and tall enough to result in an overall height of 1". The "T" sections shall be spaced 3/4" apart to allow for drainage and ventilation.

Each "T" beam shall be constructed utilizing a core of 250,000 continuous glass fiber strands that are high in resistance to tension, compression, and bending. An outer

sheath consisting of a continuous strand mat to prevent linear splitting and slipping shall surround the core. The sheath shall also serve to draw the protective resin to the bar surface. Both reinforcements shall be pulled through an isophthalic polyester resin, treated with antimony trioxide for fire resistance, to form a solid length.

The flooring shall then be protected with a polyurethane coating to screen out ultraviolet rays. The bright white coating shall be baked on.

The hose bed shall contain the following hose load:

Option ID:911300 QTY:1

EHL Hose Load, Double-Jacket Hose, 1000' of 5"

1000' of 5" double jacket hose

Option ID:002647 QTY:1

Body, 100" Wide, Rear Mount Aerial, Tandem-Axle, Aluminum, 1/8" (75'/UT 100'/105'/107)

ALUMINUM BODY CONSTRUCTION

The apparatus body shall be fabricated from 1/8" 5052-H32, smooth aluminum sheet. The total outside width of the apparatus body shall not exceed 100 inches. The width measurement of the sidewalls shall be made from the outside wall of the two opposite sides of the body.

The complete apparatus body shall be fabricated utilizing the break and bend techniques in order to form a strong, yet flexible, uni-body structure. The body shall be constructed with holding fixtures to ensure proper dimensioning. Each apparatus body is specific in design in order to meet the unique requirements of the purchasing fire department.

The main body compartments on each side, as well as the rear center compartment if applicable, shall contain a sweep out floor design. Each compartment shall be made to the most practical dimensions in order to provide maximum storage capacity for the fire department's equipment. The door opening threshold shall be positioned lower than the compartment floor permitting easy cleaning of the compartments.

Continuous, solid welded seams shall be located at the upper front and upper rear corners of the apparatus body. The flooring of all lower, main body compartmentation shall also have solid weld seams. All door jams, on both the top and the bottom, shall be solid welded as well. Each main door jam consists of a double jam design; this is comparable to a double struck frame design, which provides superior strength and durability. All double door jams are to be welded together utilizing the plug weld technique. All remaining compartment walls shall be stitch welded.

The compartment floors, specifically L1 and R1, shall have a minimum of two (2) 2" x 2" square tubes welded to the entire width of the compartment floor. The two (2) rear side compartments as well as the rear center compartment, if applicable, shall be welded to the rear deck support structure. This rear deck support structure is specially designed for the galvanized apparatus body substructure. Each lower, rear compartment shall be adequately stitch welded to the cross tubes providing strength and durability to the entire apparatus body.

The body design shall include a "false wall" design in the lower portion of each lower, rear compartment. This "false wall" is required in order to allow for easy accessibility to the rear electrical components found in the rear tail light cluster area.

On the upper area of the apparatus body, directly above the side compartment door openings, a header is to be fabricated from smooth, aluminum sheet. This area shall be free of any body seams and shall be painted the same color as the apparatus body. The height of the header may vary depending on the following factors: apparatus design, lettering requirements, scene lights and warning light requirements as well as various other options. A "J" channel shall be incorporated into the body design in order to provide a rain gutter to further assist in preventing excessive moisture from getting into the compartments.

Option ID:120790 QTY:1

Side Compartment Doors, Lap Doors, Painted

SIDE COMPARTMENT DOORS

Hinged lap-type compartment doors shall be installed on each side body compartment. Each lap door shall be a double panel construction with the outer panel fabricated of .190" 3003-H14 aluminum and the inner panel of .125" 3003-H14 aluminum. Rubber molding shall be installed in the overlap area of the door to insure a weatherproof seal and prevent water from collecting in the door sills. Weep holes shall be installed at the bottom of the doors to drain moisture from between the door panels. The compartment door shall have a polished stainless steel continuous hinge with a rubber seal installed between the hinge and the aluminum door to separate the dissimilar metals. The hinge pin shall be stainless steel with a minimum diameter of 1/4".

Compartments with vertically hinged doors that are wider than 36" will require double doors. Each vertically hinged door shall be supplied with one (1) Cleveland-style spring loaded door holder on the compartment door to hold the door in either the fully open or partially closed position. Each spring-loaded door holder shall close the door automatically when it is positioned past center or return the door to the fully open position if the center point is not reached and the door is released. On compartments having double doors, the secondary door shall have a latch mechanism to secure the door when the primary door is opened.

Pressurized gas-filled cylinders shall be furnished on the horizontally hinged lift-up compartment door. Any lift-up style door that is wider than 30" shall require two (2) cylinders. The cylinder(s) shall hold the door in the open position and assist in raising it. The gas filled cylinder(s) shall assist in closing the door automatically when the door is positioned over center.

Each compartment door handle shall be a stainless steel recessed "D" ring type handle. A safety latch with striker plate shall be included with the door handle assembly.

Option ID:901192 QTY:1

Inner Door Pan, Side Doors, Painted Main Body Color

The inner lap type door panels shall be painted the primary body color. The panels shall have a grade "B" paint finish, therefore it will not be buffed and may be subject to imperfections.

Option ID:101229 QTY:1

Compartment Door Handles, Lap Doors, All Non-Locking (10), D-Ring Handle(s)

DOOR HANDLES

All ten (10) side compartment lap doors shall have Non-Locking door handles.

Option ID:009818 QTY:1

Rear Compartment Door, (1), Painted Lap Door, Grab Handle

One (1) horizontally hinged lap type compartment door shall be installed on the compartment face. The lap door shall be a single panel construction and fabricated of aluminum. The door shall be painted job color. The edges of the door shall be formed to an inward angle for added rigidity. Rubber molding shall be installed in the overlap area of the door to ensure a weatherproof seal and prevent water from collecting in the door sill. The compartment door shall have a polished stainless steel continuous hinge with a rubber seal installed between the hinge and the aluminum door to separate the dissimilar metals. The hinge pin shall be stainless steel with a minimum diameter of 1/4".

The compartment door handle shall be a non-locking grab handle.

Two (2) pressurized gas-filled cylinders shall be furnished on the compartment door. The cylinders shall hold the door in the open position and assist in raising it. The gas filled cylinders shall assist in closing the door automatically when the door is positioned over center.

Option ID:901195 QTY:1

Inner Door Pan, (1) Rear Door, Painted Main Body Color

The inner lap type door panel shall be painted the primary body color. The panels shall have a grade "B" paint finish, therefore it will not be buffed and may be subject to imperfections.

Option ID:121085 QTY:1

Compartment Lighting, On-Scene, Access Series LED (20)

BODY COMPARTMENT LIGHTING

A total of twenty (20) On-Scene Access Series LED compartment lights shall be installed in the body compartments. Each light shall be enclosed within a tough waterproof Lexan tube enclosure and offer 400 lumens per 18" of light and an adjustable beam angle. The lights shall have a five (5) year replacement warranty.

Option ID:000934 QTY:1

Compartment Finish, Bedliner Coating, Gray

COMPARTMENT COATING

The interior of the body compartments shall be coated with gray Bedliner Coating unless otherwise specified. The coating shall be durable enough to withstand the everyday wear and tear of equipment removal and shifting.

Option ID:120482 QTY:1

Flooring, Black Turtle Tiles, All Interior Body Compartment Shelves Only

TURTLE TILES

Black Turtle Tile Plastics interlocking squares shall be provided in all of the body compartments. The Turtle Tiles shall be applied in all body compartment shelves only. For maximum slip resistance and drainage each square shall have a grid surface design.

Option ID:000474 QTY:1

Air Release and Drain Holes, All Compartments

COMPARTMENT AIR RELEASE

Each compartment shall be vented to help remove trapped air when closing the compartment door. The vent shall be a rubber gasket in the area of the outboard corners of the compartment. Wiring may also be run through these areas.

COMPARTMENT DRAIN HOLES

Each body compartment shall be equipped with drain holes to allow standing water to exit underneath the apparatus.

Option ID:000440 QTY:1

Sill Protectors, Anodized Aluminum, Lap Door Compartments

SILL PROTECTORS

An anodized aluminum angle sill protector shall be installed on the bottom sill area of the compartments with lap style doors to aid in reducing paint damage from equipment. The sill protectors shall be attached using permanent-bonding double-sided tape.

Option ID:112149 QTY:1

Fuel Fill, OEM Brushed Door, Driver's Side

FUEL FILL

The fuel fill pocket shall be located in the driver's side rear wheel well area. The fuel fill shall utilize a stainless steel OEM door with a brushed finish. The hinge and frame shall all be constructed out of stainless steel material.

Option ID:121956 QTY:1

Wheel Well Storage Design, Tandem Axle, Smart Storage

WHEEL WELL "SMART STORAGE"

The wheel wells shall be designed to accept "Smart Storage" modules for maximum compartment efficiency.

Option ID:121545 QTY:1

Driver's (Left) Side Body, Mid-Size RMA, Tandem Axle, L1 Full, L2 Upper, L3 Upper, L4 Upper, L5 Full

DRIVER'S (LEFT) SIDE BODY COMPARTMENTS

COMPARTMENT L1

A full height compartment shall be located ahead of the rear wheels on the driver's side of the apparatus body. This compartment shall be designated as L1 within these specifications and any ensuing paperwork or drawings after contract execution.

The dimensions of the compartment shall be:

- Height: 62"
- Width: 28"
- Depth: 13" Upper and 22" Lower
- Intermediate Divide Height: 30"

COMPARTMENT L2

A standard height compartment shall be located above the rear wheels on the driver's side of the apparatus body. This compartment shall be designated as L2 within these specifications and any ensuing paperwork or drawings after contract execution.

The dimensions of the compartment shall be:

- Height: 32"
- Width: 39"
- Depth: 13" Upper and 13" Lower
- Intermediate Divide Height: "

COMPARTMENT L3

A standard height compartment shall be located above the rear wheels on the driver's side of the apparatus body. This compartment shall be designated as L3 within these specifications and any ensuing paperwork or drawings after contract execution.

The dimensions of the compartment shall be:

- Height: 32"
- Width: 39"
- Depth: 13" Upper and 13" Lower
- Intermediate Divide Height: "

COMPARTMENT L4

A standard height compartment shall be located above the rear wheels on the driver's side of the apparatus body. This compartment shall be designated as L4 within these specifications and any ensuing paperwork or drawings after contract execution.

The dimensions of the compartment shall be:

- Height: 18"
- Width: 53"
- Depth: 13" Upper and 13" Lower
- Intermediate Divide Height: "

COMPARTMENT L5

A full height compartment shall be located behind the rear wheels on the driver's side of the apparatus body. This compartment shall be designated as L5 within these specifications and any ensuing paperwork or drawings after contract execution.

The dimensions of the compartment shall be:

- Height: 50"
- Width: 27"
- Depth: 13" Upper and 23" Lower
- Intermediate Divide Height: 23"

Option ID:L1 **QTY:**1

L1 Components

L1 Components

Option ID:002743 **QTY:**1

Shelf (1), Adjustable, Aluminum, Shallow Depth (2 Struts), Bedliner Coating

ADJUSTABLE SHELF

One (1) aluminum adjustable shallow-depth shelf shall be installed in the compartment. The shelf shall be constructed of 3/16" aluminum sheet with a minimum of 2" lips. The shelf shall be coated with Bedliner Coating and shall be designed in such a manner that will allow liquids to readily drain.

Option ID:003437 **QTY:**1

Tray (1), Floor-Mounted Roll Out, Innovative Ind., 300# (SM3-LP), 100% Extension, Bedliner Coating

FLOOR MOUNTED ROLL OUT TRAY

One (1) roll out tray shall be installed on the floor of the compartment. The tray shall be provided with a SlideMaster roller type assembly. The roller assembly shall have a rated capacity of 300 lb. distributed load and have 100% extension capability. A mechanical lock assembly shall be provided to lock the tray in the extended or retracted position. The tray shall be constructed of 3/16" aluminum sheet with 3" lips and shall be coated with Bedliner Coating. The tray roller assembly shall have a powder coated finish for added corrosion protection.

Option ID:120785 **QTY:**1

Compartment Struts, Vertical, Welded Aluminum

COMPARTMENT STRUTS

Aluminum vertical strut channels shall be welded in the compartment. Two (2) struts shall be provided for any full depth portion and one (1) strut shall be provided for any shallow depth portion.

Option ID:Cmpt. Layout **QTY:**1

The compartment layout shall be detailed at the pre-construction meeting.

The compartment layout shall be detailed at the pre-construction meeting.

Option ID:L2 **QTY:**1

L2 Components

L2 Components

Option ID:002743 **QTY:**1

Shelf (1), Adjustable, Aluminum, Shallow Depth (2 Struts), Bedliner Coating

ADJUSTABLE SHELF

One (1) aluminum adjustable shallow-depth shelf shall be installed in the compartment. The shelf shall be constructed of 3/16" aluminum sheet with a minimum of 2" lips. The shelf shall be coated with Bedliner Coating and shall be designed in such a manner that will allow liquids to readily drain.

Option ID:120785 **QTY:**1

Compartment Struts, Vertical, Welded Aluminum

COMPARTMENT STRUTS

Aluminum vertical strut channels shall be welded in the compartment. Two (2) struts shall be provided for any full depth portion and one (1) strut shall be provided for any shallow depth portion.

Option ID:Cmpt. Layout **QTY:**1

The compartment layout shall be detailed at the pre-construction meeting.

The compartment layout shall be detailed at the pre-construction meeting.

Option ID:L3 **QTY:**1

L3 Components

L3 Components

Option ID:Cmpt. Layout **QTY:**1

The compartment layout shall be detailed at the pre-construction meeting.

The compartment layout shall be detailed at the pre-construction meeting.

Option ID:L4 QTY:1
L4 Components

L4 Components

Option ID:Cmpt. Layout QTY:1

The compartment layout shall be detailed at the pre-construction meeting.

The compartment layout shall be detailed at the pre-construction meeting.

Option ID:L5 QTY:1
L5 Components

L5 Components

Option ID:002743 QTY:1

Shelf (1), Adjustable, Aluminum, Shallow Depth (2 Struts), Bedliner Coating

ADJUSTABLE SHELF

One (1) aluminum adjustable shallow-depth shelf shall be installed in the compartment. The shelf shall be constructed of 3/16" aluminum sheet with a minimum of 2" lips. The shelf shall be coated with Bedliner Coating and shall be designed in such a manner that will allow liquids to readily drain.

Option ID:120785 QTY:1

Compartment Struts, Vertical, Welded Aluminum

COMPARTMENT STRUTS

Aluminum vertical strut channels shall be welded in the compartment. Two (2) struts shall be provided for any full depth portion and one (1) strut shall be provided for any shallow depth portion.

Option ID:Cmpt. Layout QTY:1

The compartment layout shall be detailed at the pre-construction meeting.

The compartment layout shall be detailed at the pre-construction meeting.

Option ID:121926 QTY:1

WL1, Smart Storage, Air Bottle Storage, OEM Brushed SS Door, Triple Triangle Design

DRIVER'S SIDE SMART STORAGE - WL1

A three (3) air bottle Smart Storage compartment shall be installed in the forward portion of the rear wheel well area, on the driver's side of the apparatus. The compartment shall be a triangle design. The compartment door and hinge shall be constructed of stainless steel material. The door shall have a rubber gasket to create a 100% seal against an

aluminum flange to protect the interior of the compartment. The door shall have a brushed stainless steel finish.

Option ID:121933 QTY:1

WL2, Smart Storage, Open Storage, OEM Brushed SS Drop-Down Door

DRIVER'S SIDE SMART STORAGE - WL2

A Smart Storage open storage compartment shall be installed in the rear wheel well area between the tandem axles on the driver's side of the apparatus. The compartment door and hinge shall be constructed of stainless steel material. The door shall have a rubber gasket to create a 100% seal against an aluminum flange to protect the interior of the compartment. The door shall have a brushed stainless steel finish.

Option ID:121936 QTY:1

WL3, Smart Storage, Air Bottle Storage, OEM Brushed SS Door, Triple Triangle Design

DRIVER'S SIDE SMART STORAGE - WL3

A three (3) air bottle Smart Storage compartment shall be installed in the rearward portion of the rear wheel well area, on the driver's side of the apparatus. The compartment shall be a triangle design. The compartment door and hinge shall be constructed of stainless steel material. The door shall have a rubber gasket to create a 100% seal against an aluminum flange to protect the interior of the compartment. The door shall have a brushed stainless steel finish.

Option ID:121583 QTY:1

Officer's (Right) Side Body, Mid-Size RMA, Tandem Axle, R1 Full, R2 Upper, R3 Upper, R4 Upper, R5 Full

OFFICER'S (RIGHT) SIDE BODY COMPARTMENTS

COMPARTMENT R1

A full height compartment shall be located ahead of the rear wheels on the officer's side of the apparatus body. This compartment shall be designated as R1 within these specifications and any ensuing paperwork or drawings after contract execution.

The dimensions of the compartment shall be:

- Height: 62"
- Width: 28"
- Depth: 13" Upper and 22" Lower
- Intermediate Divide Height: 25"

COMPARTMENT R2

A standard height compartment shall be located above the rear wheels on the officer's side of the apparatus body. This compartment shall be designated as R2 within these specifications and any ensuing paperwork or drawings after contract execution.

The dimensions of the compartment shall be:

- Height: 32"
- Width: 39"
- Depth: 13" Upper and 13" Lower
- Intermediate Divide Height: "

COMPARTMENT R3

A standard height compartment shall be located above the rear wheels on the officer's side of the apparatus body. This compartment shall be designated as R3 within these specifications and any ensuing paperwork or drawings after contract execution.

The dimensions of the compartment shall be:

- Height: 32"
- Width: 39"
- Depth: 13" Upper and 13" Lower
- Intermediate Divide Height: "

COMPARTMENT R4

A standard height compartment shall be located above the rear wheels on the officer's side of the apparatus body. This compartment shall be designated as R4 within these specifications and any ensuing paperwork or drawings after contract execution.

The dimensions of the compartment shall be:

- Height: 18"
- Width: 53"
- Depth: 13" Upper and 13" Lower
- Intermediate Divide Height: "

COMPARTMENT R5

A full height compartment shall be located behind the rear wheels on the officer's side of the apparatus body. This compartment shall be designated as R5 within these specifications and any ensuing paperwork or drawings after contract execution.

The dimensions of the compartment shall be:

- Height: 50"
- Width: 51"
- Depth: 13" Upper and 23" Lower
- Intermediate Divide Height: 23"

Option ID:R1 QTY:1
R1 Components

R1 Components

Option ID:002743 QTY:1

Shelf (1), Adjustable, Aluminum, Shallow Depth (2 Struts), Bedliner Coating

ADJUSTABLE SHELF

One (1) aluminum adjustable shallow-depth shelf shall be installed in the compartment. The shelf shall be constructed of 3/16" aluminum sheet with a minimum of 2" lips. The shelf shall be coated with Bedliner Coating and shall be designed in such a manner that will allow liquids to readily drain.

Option ID:003437 QTY:1

Tray (1), Floor-Mounted Roll Out, Innovative Ind., 300# (SM3-LP), 100% Extension, Bedliner Coating

FLOOR MOUNTED ROLL OUT TRAY

One (1) roll out tray shall be installed on the floor of the compartment. The tray shall be provided with a SlideMaster roller type assembly. The roller assembly shall have a rated capacity of 300 lb. distributed load and have 100% extension capability. A mechanical lock assembly shall be provided to lock the tray in the extended or retracted position. The tray shall be constructed of 3/16" aluminum sheet with 3" lips and shall be coated with Bedliner Coating. The tray roller assembly shall have a powder coated finish for added corrosion protection.

Option ID:120785 QTY:1

Compartment Struts, Vertical, Welded Aluminum

COMPARTMENT STRUTS

Aluminum vertical strut channels shall be welded in the compartment. Two (2) struts shall be provided for any full depth portion and one (1) strut shall be provided for any shallow depth portion.

Option ID:Cmpt. Layout QTY:1

The compartment layout shall be detailed at the pre-construction meeting.

The compartment layout shall be detailed at the pre-construction meeting.

Option ID:R2 QTY:1

R2 Components

R2 Components

Option ID:002743 QTY:1

Shelf (1), Adjustable, Aluminum, Shallow Depth (2 Struts), Bedliner Coating

ADJUSTABLE SHELF

One (1) aluminum adjustable shallow-depth shelf shall be installed in the compartment. The shelf shall be constructed of 3/16" aluminum sheet with a minimum of 2" lips. The shelf shall be coated with Bedliner Coating and shall be designed in such a manner that will allow liquids to readily drain.

Option ID:120785 QTY:1

Compartment Struts, Vertical, Welded Aluminum

COMPARTMENT STRUTS

Aluminum vertical strut channels shall be welded in the compartment. Two (2) struts shall be provided for any full depth portion and one (1) strut shall be provided for any shallow depth portion.

Option ID:Cmpt. Layout QTY:1

The compartment layout shall be detailed at the pre-construction meeting.

The compartment layout shall be detailed at the pre-construction meeting.

Option ID:R3 QTY:1**R3 Components**

R3 Components

Option ID:Cmpt. Layout QTY:1

The compartment layout shall be detailed at the pre-construction meeting.

The compartment layout shall be detailed at the pre-construction meeting.

Option ID:R4 QTY:1**R4 Components**

R4 Components

Option ID:Cmpt. Layout QTY:1

The compartment layout shall be detailed at the pre-construction meeting.

The compartment layout shall be detailed at the pre-construction meeting.

Option ID:R5 QTY:1**R5 Components**

R5 Components

Option ID:002743 QTY:1

Shelf (1), Adjustable, Aluminum, Shallow Depth (2 Struts), Bedliner Coating

ADJUSTABLE SHELF

One (1) aluminum adjustable shallow-depth shelf shall be installed in the compartment. The shelf shall be constructed of 3/16" aluminum sheet with a minimum of 2" lips. The shelf shall be coated with Bedliner Coating and shall be designed in such a manner that will allow liquids to readily drain.

Option ID:002745 QTY:1

Shelf (1), Adjustable, Aluminum, Full Depth (4 Struts), Bedliner Coating

ADJUSTABLE SHELF

One (1) aluminum adjustable full-depth shelf shall be installed in the compartment. The shelf shall be constructed of 3/16" aluminum sheet with a minimum of 2" lips. The shelf shall be coated with Bedliner Coating and shall be designed in such a manner that will allow liquids to readily drain.

Option ID:120785 QTY:1

Compartment Struts, Vertical, Welded Aluminum

COMPARTMENT STRUTS

Aluminum vertical strut channels shall be welded in the compartment. Two (2) struts shall be provided for any full depth portion and one (1) strut shall be provided for any shallow depth portion.

Option ID:Cmpt. Layout QTY:1

The compartment layout shall be detailed at the pre-construction meeting.

The compartment layout shall be detailed at the pre-construction meeting.

Option ID:121942 QTY:1

WR1, Smart Storage, Air Bottle Storage, OEM Brushed SS Door, Triple Triangle Design

OFFICER'S SIDE SMART STORAGE - WR1

A three (3) air bottle Smart Storage compartment shall be installed in the forward portion of the rear wheel well area, on the officer's side of the apparatus. The compartment shall be a triangle design. The compartment door and hinge shall be constructed of stainless steel material. The door shall have a rubber gasket to create a 100% seal against an aluminum flange to protect the interior of the compartment. The door shall have a brushed stainless steel finish.

Option ID:121949 QTY:1

WR2, Smart Storage, Open Storage, OEM Brushed SS Drop-Down Door

OFFICER'S SIDE SMART STORAGE - WR2

A Smart Storage open storage compartment shall be installed in the rear wheel well area between the tandem axles on the officer's side of the apparatus. The compartment door and hinge shall be constructed of stainless steel material. The door shall have a rubber gasket to create a 100% seal against an aluminum flange to protect the interior of the compartment. The door shall have a brushed stainless steel finish.

Option ID:121952 QTY:1

WR3, Smart Storage, Air Bottle Storage, OEM Brushed SS Door, Triple Triangle Design

OFFICER'S SIDE SMART STORAGE - WR3

A three (3) air bottle Smart Storage compartment shall be installed in the rearward portion of the rear wheel well area, on the officer's side of the apparatus. The compartment shall be a triangle design. The compartment door and hinge shall be constructed of stainless steel material. The door shall have a rubber gasket to create a 100% seal against an aluminum flange to protect the interior of the compartment. The door shall have a brushed stainless steel finish.

Option ID:901045 QTY:1

Rear Side Body, Rear Mounts, Torque Box Compartment

REAR BODY COMPARTMENT

A compartment shall be located at the rear of the apparatus that extends into the apparatus torque box.

Option ID:008773 QTY:1

Sub Frame Body Mounts, GS-36, Hot-Dip Galvanized Steel, Aerial (105')

HOT-DIP GALVANIZED STEEL BODY MOUNT SUB FRAME

The main body mount sub frame shall be constructed from formed steel channel bolted and welded to the torque box. The sub frame shall be located at the front and rear of the body and in front of, above, and rear of the wheel well opening.

The compartment area behind the rear axle shall be supported by a drop frame fabricated of steel tube and angles. All drop frame structures shall be welded directly to the torque box to allow the body to be a completely separate structure from the chassis.

Option ID:005118 QTY:1

Rub Rails, "C" Channel Design

BODY RUB RAILS

Rub rails shall be installed beneath the compartment doors to protect the apparatus body from damage should the body be brushed or rubbed against another object. The rub rails shall be 2-1/2" x 1" , 3/16" aluminum channel. The rub rails shall be highly polished and then bright dip anodized.

The rub rails shall be installed on the body utilizing non-corrosive nylon spacers and secured with stainless steel bolts. The outside edge of the rub rails shall be even with the fenderettes and bolt-on steps to prevent snagging.

Option ID:000516 QTY:1

Tow Option, Rear, Tow Eye, Two (2), Chrome

TWO REAR TOW EYES

Two (2) chrome plated tow eyes shall be installed at the rear of the apparatus above the

rear step area. The tow eyes shall be bolted to a heavy-duty assembly that is welded to the torque box. The tow eyes shall have a 2-1/2" ID hole.

Option ID:UPO0040538 QTY:1

Modifications

Modifications

Option ID:121960 QTY:1

Wheel Wells, Rear, Tandem Axle, Black Polymer, Smart Storage

REAR WHEEL WELLS

Wheel wells shall have semicircular black polymer composite inner liners that are bolted to the wheel well panel and supported inboard by brackets that are connected to the body framework. Each wheel well shall be a continuous piece with no breaks or ledges where road grime or debris may accumulate. This liner shall be removable for access to suspension assembly for repairs. There shall be no exception to the bolted wheel well inner liner requirement.

Option ID:121958 QTY:1

Fenderettes, (4), Tandem Axle, Stainless Steel, Smart Storage

STAINLESS STEEL FENDERETTES

Four (4) stainless steel fenderettes shall be installed at the outboard edge of the rear wheel well area, two (2) on each side. Rubber welting shall be provided between the body and the crown to seal the seam and restrict moisture from entering. A dielectric barrier shall be provided between the fender crown fasteners (screws) and the fender sheet metal to resist deterioration. The fenderettes shall be constructed of stainless steel that has been polished to a high-quality finish.

Option ID:120489 QTY:1

Exhaust Heat Deflector Shield, 4"

EXHAUST HEAT DEFLECTOR SHIELD

A 4" heat deflector shield shall be installed over the exhaust to aid in dissipating the heat to prevent exhaust heat from adversely affecting contents stored in the body.

Option ID:002427 QTY:1

License Plate Bracket

LICENSE PLATE BRACKET

A license plate bracket shall be mounted on the rear of the apparatus. A clear LED light shall be incorporated into the bracket.

Option ID:006375 QTY:1

Stainless Steel Screws, Aerial

TRIMRITE STAINLESS STEEL FASTENERS

TrimRite stainless steel fasteners shall be provided for all exposed and unpainted fasteners throughout the body in locations such as overlays, pump panels, and other numerous hardware mounting locations. TrimRite stainless is a hardenable martensitic stainless steel that provides a high level of corrosion resistance, hardness up to Rockwell C 51, good cold formability and ease of heat treatment, all of which combine to provide an alloy which has been used for many applications. TrimRite stainless is tested to salt spray standard ASTM B117, which is a 200-hour salt spray test. The OEM shall use TrimRite stainless with an added blue patch which provides improved vibration resistance for the fasteners.

Option ID:900963 QTY:1

Walkways/Overlays/Stepping Surfaces, Tread Plate, NFPA 1901

WALKWAYS AND OVERLAYS

All exterior surfaces designated by the manufacturer as stepping, standing, or walking areas shall be overlaid with 3003 H22 bright tread plate to provide a slip resistant surface, even when the surface is wet. All interior surfaces designated by the manufacturer as stepping, standing, or walking areas shall be slip resistant when the surface is dry. The degree of slip resistance shall be in accordance with NFPA 1901, current edition.

Horizontal walkways shall have .080" aluminum tread plate overlays installed and vertical surfaces shall have .125" aluminum tread plate overlays. Overlays shall be installed that are totally insulated from the apparatus with nylon shoulder washers that extend into holes in the body. Stainless steel cap nuts shall be employed where bolt ends may damage equipment or cause injury. After the apparatus is painted and the overlays are reinstalled, they shall be additionally sealed at the edges with a caulking compound. The exterior top tread plate overlay shall be mounted flush with the outer edges of the apparatus body.

Any designated horizontal standing or walking surface higher than 48" from the ground and not guarded by a railing, or structure at least 12" high shall have a "safety yellow line" marking the outside perimeter of the designated standing or walking surface area. Yellow reflective SCENE dots shall be used to create the line along the outside edges of standing and walking surfaces. Steps and ladders shall not be required to have the yellow line.

STEPPING SURFACES

All steps shall have a surface area of at least 35 square inches and shall be able to withstand a load of at least 500 pounds. Steps shall be provided at any area that personnel may need to climb and shall be adequately lit.

Option ID:007906 QTY:1

Turntable Access Ladder, Driver's Side, Grote LED Light, Knurled Aluminum Handrails, Rear Mounts

TURNTABLE ACCESS LADDER - DRIVER'S SIDE

For access to the turntable, a turntable access ladder shall be furnished on the driver's side of the apparatus. The ladder design shall utilize two (2) air cylinders to aid in the deployment of the ladder into the climbing position and a positively locking mechanism to lock the ladder assembly into the travel position. The main structural members of the assembly shall be fabricated from 12 gauge 304 stainless steel with aluminum tread plate overlays on the step area. The degree of slip resistance shall be in accordance with NFPA 1901, current edition.

The access ladder shall be designed as a two (2) part assembly. The lower ladder assembly shall swing out and down and the upper ladder assembly will angle when the lower assembly is in the down position to an approximate slope of 81 degrees to provide ease of access from the ground to the first step and allow for the maximum angle of departure of the apparatus. When the access ladder is in the down position, the maximum height from the ground to the first step shall not exceed 24". All remaining steps shall have a maximum stepping height that shall not exceed 18".

The access ladder shall be connected to the door open warning circuit to warn the driver it is not in the stored position. The access ladder shall be illuminated for night time operation with Grote LED lighting. The lights shall be activated by the parking brake. To aid in ascending and descending the access steps, knurled aluminum handrails shall be provided on each side of the steps as well as one (1) on top of the body above the steps.

Option ID:000505 QTY:1

Overlay, Tread Plate, Vertical Areas of Both Front Compartments

FRONT TREAD PLATE OVERLAYS

A tread plate overlay shall be located on the front vertical areas of each side of the apparatus body. The overlays shall be located on the front of the body compartments.

Option ID:007897 QTY:1

Front Steps and Lighting, Cast Products, Folding Steps (4), Driver's Side, Smeal Logo

FRONT BODY STEPS AND LIGHTING

Four (4) Cast Products folding steps shall be located on the front of the driver's side body compartments. The folding steps shall have two large open slots to prevent the buildup of ice or mud and to provide a hand-hold when necessary. The steps shall have a surface area of at least 35 square inches and shall be able to withstand a load of 500 pounds.

The steps shall be adequately lit with LED lighting. One (1) light shall be located above the steps.

Option ID:007902 QTY:1

Front Steps and Lighting, Cast Products, Folding Steps (4), Officer's Side, Smeal Logo

FRONT BODY STEPS AND LIGHTING

Four (4) Cast Products folding steps shall be located on the front of the officer's side body compartments. The folding steps shall have two large open slots to prevent the

buildup of ice or mud and to provide a hand-hold when necessary. The steps shall have a surface area of at least 35 square inches and shall be able to withstand a load of 500 pounds.

The steps shall be adequately lit with LED lighting. One (1) light shall be located above the steps.

Option ID:900960 QTY:1

Handrail Material, Knurled Aluminum

HANDRAILS

All handrails, unless otherwise stated, shall be constructed of knurled aluminum of not less than 1-1/4" in diameter. All railing shields and brackets shall be chrome plate and bolted to the body with stainless steel bolts. The lower bracket on all vertical handrails shall have a drain hole at the lowest point.

The following handrails shall be provided on the apparatus:

Option ID:UPOxxxxxxx QTY:1

Front Steps and Lighting, Cast Products, Folding Steps (2), Rear of Front Stabilizers, One Each Side, Smeal Logo

FRONT BODY STEPS AND LIGHTING

Two (2) Cast Products folding steps shall be located on the rear of the front stabilizer compartments, one each side. The folding steps shall have two large open slots to prevent the buildup of ice or mud and to provide a hand-hold when necessary. The steps shall have a surface area of at least 35 square inches and shall be able to withstand a load of 500 pounds.

The steps shall be adequately lit with LED lighting. One (1) light shall be located above the steps.

Option ID:003598 QTY:1

Handrail, Body (Front), Top, Driver's Side, Knurled Aluminum

A handrail shall be installed forward on the top of the body, on the driver's side.

Option ID:000521 QTY:1

Handrail, Body (Front), Top, Officer's Side, Knurled Aluminum

A handrail shall be installed on the top officer's side front of the body.

Option ID:120676 QTY:1

Handrails, Pump Module, Above Pump Panel, Horizontal, Both Sides, Knurled Aluminum

Two (2) horizontal handrails shall be installed, one (1) each above both the driver's side and officer's side pump panels.

Option ID:001316 QTY:1**Ladder Storage, In Torque Box, (2) Enclosed Compartments (105')****GROUND LADDER STORAGE**

The ground ladders shall be stored within the two enclosed compartments located between the torque box and the inside wall of the side compartments. The ladders shall be removable from the rear of the apparatus. The ladders shall be enclosed so road dirt and debris cannot foul or damage the ladders. The ladders shall rest in full-length slides and be arranged so they can be removed individually. The slides shall be lined with Nylon to aid in moving ladders. Access to the ladder(s) in each enclosed compartment shall be from the rear of the apparatus through a door matching the same material and finish as the torque box compartment door.

The following ground ladders shall be supplied with the apparatus:

Option ID:121676 QTY:1

Ground Ladder Package, Duo-Safety, (1) 10' Attic (585-A), (1) 14' Fresno (701), (1) 16' Roof (875-A), (1) 24' Two-Section (900-A), (1) 35' Three-Section (1225-A)

One (1) Duo-Safety, model 585-A, 10' aluminum folding ladder shall be provided.

One (1) Duo-Safety, model 701, 14' aluminum "Fresno" attic extension ladder with a 13" rail width shall be provided.

One (1) Duo-Safety, model 875-A, 16' aluminum roof ladder with folding roof hooks shall be provided.

One (1) Duo-Safety, model 900-A, 24' aluminum two-section extension ladder shall be provided.

One (1) Duo-Safety, model 1225-A, 35' aluminum three-section extension ladder shall be provided.

Option ID:009223 QTY:1**Pike Pole Storage, In Upper Portion of Torque Box, (6) Tubes****PIKE POLE STORAGE**

Six (6) aluminum tubes for the storage of pike poles shall be installed inside the upper portion of the torque box.

The following pike poles shall be supplied with this location on the apparatus:

Option ID:121692 QTY:1

Pike Pole Package, Duo-Safety, Fiberglass, Standard Hooks, (2) 6' Poles (FP6), (2) 8' Poles (FP8), (2) 12' Poles (FP12)

Two (2) Duo Safety, model FP6, 6' fiberglass pike poles with a standard hook and a butt-style handle shall be provided.

Two (2) Duo Safety, model FP8, 8' fiberglass pike poles with a standard hook and a butt-style handle shall be provided.

Two (2) Duo Safety, model FP12, 12' fiberglass pike poles with a standard hook and a butt-style handle shall be provided.

Option ID:009226 QTY:1

Pike Pole Storage, In Upper Portion of Torque Box, (2) Trays

PIKE POLE STORAGE

Two (2) aluminum trays for the storage of pike poles shall be installed inside the upper portion of the torque box.

The following pike poles shall be supplied with this location on the apparatus:

Option ID:121263 QTY:1

Pike Poles (2), Fire Hooks Unlimited, 4' Fiberglass, National Hook, Ash Core, D-Handle, NHF-4 w/D

Two (2) Fire Hooks Unlimited, model NHF-4 w/D, 4' fiberglass (ash core) pike poles with a National Hook and an aluminum "D" style handle shall be provided.

Option ID:900953 QTY:1

Wheel Chock Storage, Under Rear of Body, Driver's Side

WHEEL CHOCK STORAGE

The wheel chocks shall be stored in locations that are easily accessible under the rear of the body on the driver's side of the apparatus.

Option ID:001204 QTY:1

Wheel Chocks, (1) Pair, Zico SAC-44 and Bracket, OEM Installed

WHEEL CHOCKS

One (1) pair of Zico, model SAC-44, wheel chocks shall be provided with the apparatus. The wheel chocks shall be mounted in Zico model, SQCH-44-H, mounting brackets.

Option ID:002648 QTY:1

Pump Module, Rear Mount Aerial, Independent, 1/8" Aluminum (105')

INDEPENDENT ALUMINUM PUMP MODULE

The pump module shall be fabricated from 1/8" 5052-H32, smooth aluminum sheet. The module shall be fabricated as an individual unit, independent from the body. The module shall be fabricated utilizing the break and bend technique in order to form a strong yet flexible structure. The pump module shall be fabricated using precision holding fixtures to ensure proper dimensions and all attachment points shall be heavily reinforced.

Option ID:004731 QTY:1

Pump Compartment Internal Lighting, LED, On-Scene

PUMP COMPARTMENT LIGHTS

Two (2) 9" On-Scene Night Axe LED lights shall be installed in the pump compartment. The lights shall be rated at 100,000 hours of service. The lights shall be waterproof and magnesium chloride resistant. The lights shall be enclosed in tough 5/8" Lexan tube.

Option ID:009864 QTY:1

Running Board, Driver's Side, Bolt-On, Tread Plate

DRIVER'S SIDE RUNNING BOARD

A modular bolt-on running board, constructed of anti-slip tread plate, shall be installed on the driver's side of the pump module. The outside edge of the running board shall be flush with the rub rail installed on the body to maintain a uniform appearance. The running board shall be installed with sufficient support to form a sturdy, non-deflecting step area for personnel.

Option ID:010108 QTY:1

Running Board, Officer's Side, Bolt-On, Tread Plate

OFFICER'S SIDE RUNNING BOARD

A modular bolt-on running board, constructed of anti-slip tread plate, shall be installed on the officer's side of the pump module. The outside edge of the running board shall be flush with the rub rail installed on the body to maintain a uniform appearance. The running board shall be installed with sufficient support to form a sturdy, non-deflecting step area for personnel.

Option ID:009863 QTY:1

Pull-Out Platforms (2), Both Sides of Pump Module, Innovative Industries

PULL-OUT PLATFORMS

A total of two (2) Innovative Industries pull-out platforms shall be provided, one (1) located on each side of the pump module. The top surface of each platform shall be constructed of aluminum serrated bar grating for ease of maintenance and to provide a slip resistant surface for the operator. Each platform shall lock in both the retracted and the extended position. Each pull-out platform shall be capable of supporting a maximum of 500 pounds and shall be wired to the door-ajar circuit.

Each pull-out platform's roller assembly shall have a powder coat finish for added corrosion protection.

Option ID:009985 QTY:1

Tread Plate Dunnage, Above Pump Module, Tread Plate Cover

DUNNAGE COMPARTMENT

A dunnage compartment shall be located above the pump module. The dunnage compartment floor shall be constructed of tread plate.

The dunnage compartment shall have a hinged cover constructed from anti-slip tread plate material.

Option ID:005149 QTY:1

Access Panel, Pump, Front Pump Module, Removable, Tread Plate, Compression Latches, Side Mounts, RMA's

FRONT PUMP ACCESS PANEL

A tread plate access panel shall be provided on the front of the pump compartment. The panel shall be of the single pan design and shall be positively latched in the closed position utilizing compression latches. An aluminum sill protector shall be installed on the bottom of the door opening to protect the paint from chipping and scratching. This area shall be accessible when the cab is tilted.

Option ID:000460 QTY:1

Access Panel, Pump, Officer's Side Pump Module, Side-Hinged, Tread Plate, Compression Latches

OFFICER'S SIDE PUMP ACCESS PANEL

A tread plate access panel shall be above the officer's side pump panel to allow access to the pump compartment. The vertically hinged panel shall be of the single pan design and shall be positively latched in the closed position utilizing compression latches. A gas strut shall be provided on the door. An aluminum sill protector shall be installed on the bottom of the door opening to protect the paint from chipping and scratching. The door shall be wired into the door open warning light circuit.

Option ID:121716 QTY:1

Pump Panels, Rear Mount Aerial and Platform, Controls on Driver's Side, Black Bedliner Coating Finish, IC Bezels/Trim Rings/Labels

CONTROL PANEL

The driver's side of the pump enclosure shall be divided into two sections. The lower section shall contain all valve controls, primer controls, discharge relief valve controls (pilot valve), and other mechanical controls. This surface shall be referred to as the "control panel".

All valve controls shall be the self-locking type, activated by either direct control or with a direct linkage utilizing friction locking bell cranks and universal ball swivels. The primary valve handles shall have color coded tags installed in a recessed area to clearly denote the purpose of each control.

INSTRUMENT PANEL

The surface up above the control panel shall contain all instruments, gauges, test fittings, and optional controls. This surface shall be referred to as the "instrument panel".

The instrument panel shall be independent and hinged and latched. All instruments, gauges, and other equipment shall be installed with sufficient slack in any cabling, tubing, or plumbing to allow the panel to swivel to the fully open position.

The instrument and gauge panel shall be vertically hinged "swing out" to provide access for service.

OFFICER'S SIDE PUMP PANEL

A single panel shall be installed on the officer's side of the pump enclosure. This shall be the area where any officer's side discharges, inlets, steamers, and other pump-associated equipment are located. This panel shall be easily removed and held in place with quick release push latches. It shall be fully removable for pump and plumbing access without the need to use hand tools. Any electrical equipment installed shall be equipped with connectors so they may be easily separated when the below described front access panel is removed.

PANEL SURFACES

The control panel, instrument panel, and officer's side pump panel shall be coated with black Bedliner Coating for maximum resistance to abrasion and to minimize glare. The material shall be capable of withstanding the effects of extreme temperatures and weather.

GARNISH RING BEZEL ASSEMBLIES

Innovative Controls intake and discharge garnish rings shall be installed on the apparatus with mounting bolts. These bezel assemblies shall be used to identify intake and discharge ports with color and verbiage.

VERBIAGE TAG BEZEL ASSEMBLIES

Innovative Controls verbiage tag bezels shall be installed. The bezel assemblies will be used to identify apparatus components.

SAFETY MESSAGE BEZEL ASSEMBLIES

Innovative Controls safety message bezels shall be installed. The bezel assemblies will be used to identify, instruct, or warn the operators.

The garnish rings, verbiage tags and safety message bezels shall be designed and manufactured to withstand the specified apparatus service environment and shall be backed by a warranty equal to that of the exterior paint and finish. The specified assemblies shall feature a chrome-plated panel-mount bezel with durable UV resistant polycarbonate inserts. These UV resistant polycarbonate graphic inserts shall be sub-surface screen printed to eliminate the possibility of wear and protect the inks from fading. All insert labels shall be backed with 3M permanent adhesive (200MP), which meets UL969 and is in accordance with NFPA 1901, current edition.

Option ID:003659 QTY:1

Pump Panel Lighting, Side Panels, LED, On-Scene Night Axe

PUMP PANEL LIGHTING

The pump operator's control panel and the officer's side pump panel shall each be illuminated by On-Scene LED Night Axe lighting. The pump panel lights shall become energized upon setting the park brake so the gauge information provided may be consulted. A stainless steel shield shall be installed over the pump panel lights to further protect them from the elements and to act as a reflector for additional illumination.

Option ID:910612 QTY:1

Pump Panel Lighting Activation, Automatic with Park Brake Engaged

The pump panel lighting shall become energized automatically upon setting the park brake so the gauge information may be consulted at any time the apparatus is parked.

Option ID:UPOxxxxxxx QTY:1

Speaker, University Sound, Left Side Of Pump Module, With Volume Control (D-226-3021) (D-CT22152)

PUMP PANEL SPEAKER

There shall be an University Sound model #MIS8C, speaker located on the pump panel. The speaker will be used with the fire department's radio.

There shall be a speaker wire run from the speaker to the cab dash area.

Option ID:100157 QTY:1

Pump, Waterous, Single-Stage, 2000 GPM, CSUC20, Flame Plated Impeller Hubs

MIDSHIP MOUNT FIRE PUMP

The pump shall be a Waterous CSUC20 2000 U.S. GPM fire pump. The pump shall be a single stage centrifugal class "A" rated fire pump, designed specifically for the fire service.

The pump body shall be cast as two (2) horizontally split pieces. The body shall be made of high tensile, close-grained gray iron with a minimum tensile strength of 40,000 PSI.

FLAME PLATED IMPELLER HUBS

The pump impellers shall be bronze, specifically designed for the fire service and accurately balanced for vibration free running. The stripping edges shall be located on opposite sides of the impellers to reduce shaft deflection.

The impeller shaft shall be stainless steel, accurately ground to size and supported at each end by oil or grease lubricated anti-friction ball bearings for rigid, precise support. The bearings used on the impeller shaft shall be automotive type bearings, easily cross-referenced and readily available at normal parts or bearing stores.

The impeller hubs shall be flame plated with tungsten carbide to hardness approximately twice that of tool steel to assure maximum pump life and efficiency. During the flame plating process, the base metal shall not be allowed to exceed a temperature of 300

degrees Fahrenheit to prevent altering the metallurgical properties of the impeller material.

IMPELLER WEAR RINGS

The pump shall be equipped with replaceable bronze wear rings for increased pump life and minimum maintenance cost. The wear rings shall be designed to fit into a groove in the face of the impeller hubs forming a labyrinth that, as the clearance increases with age, directs water from the discharge side in several directions eventually exiting outward, away from the eye of the impeller hub.

LUBRICATION SYSTEM

An internal lubrication system shall deliver lubricant directly to the drive chain. This unique design shall eliminate the need for an external lubrication pump and auxiliary cooling. Oil shall be supplied with the lubrication system.

PUMP TRANSMISSION

The pump shall have a Waterous model C20 series transmission. The housing of the transmission shall be constructed of high strength, three-piece, horizontally split aluminum. The drive line shafts shall be made from alloy steel forgings, hardened and ground to a size 2.350 inch 46 tooth involute spline. The drive and driven sprockets shall be made of steel and shall be hardened and have ground bores. The drive chain shall be a Morse HV high strength involute form chain. Bearings shall be deep-groove, anti-friction ball bearings and shall give support and proper alignment with the impeller shaft assembly. Bearings shall be oil splash lubricated, completely separated from the water being pumped, and protected by a V-ring and oil seal. An internal lubrication system shall deliver lubricant directly to the drive chain. This unique design eliminates the need for an external lubrication pump and auxiliary cooling. The pump and transmission shall be easily separable. A two-piece shaft shall be splined allowing for individual repair of either the pump or transmission, to keep down time to a minimum. All drive line components shall have a torque rating equal to or greater than the final net engine torque.

Option ID:910618 QTY:1
Grafoil Packing, Waterous

PUMP PACKING

The stuffing boxes shall be equipped with Waterous Grafoil two-piece adjustable packing glands.

Option ID:002792 QTY:1
Anodes, Waterous, Magnesium, 2 Discharge, 2 Intake

ZINC ANODES

Four (4) Waterous Magnesium anodes shall be provided with the fire pump. The anodes shall aid in preventing galvanic corrosion within the water pump and be easily

replaceable. The anodes shall be installed as follows:

- Two (2) on the intake side of the pump
- Two (2) in the discharge manifold of the fire pump.

Option ID:910622 QTY:1

Pump Rating, 1500 GPM

The pump shall be rated at 1500 gallons per minute.

Option ID:910640 QTY:1

Pump Mounting, Independent Pump Module

FIRE PUMP MOUNTING

The fire pump shall be mounted within a separate body module that is not directly connected to the apparatus body.

The pump shall be frame mounted; therefore minimizing the likelihood of the pump casing cracking should the apparatus be involved in a collision.

The pump module shall be mounted to the frame in a minimum of four (4) locations and shall be reinforced appropriately in order to carry the expected load for the life of the apparatus.

Option ID:100272 QTY:1

Pump Shift, Chassis Sup/Instl, Electric-Over-Air, Lights Incorporated with Pres. Gov.

PUMP SHIFT

The pump shift shall be supplied and installed by the chassis manufacturer.

The pump system shift indicator lights in the chassis cab shall be supplied and installed by the chassis manufacturer.

The pump system shift indicator lights on the operator's panel shall be incorporated with the pump pressure governor.

Option ID:101457 QTY:1

Relocate Chassis Supplied Knee Area Pump Shift

In the event that the chassis supplied pump shift location is inset too far toward the firewall, the OEM will relocate the pump shift control in the chassis cab. The OEM will assure the pump shift is not moved to an area that may interfere with the airbag deployment zone.

Option ID:UPOxxxxxxx QTY:1

Governor, Total Pressure Governor (UV-TPG), Class 1

PRESSURE GOVERNOR

The apparatus shall be equipped with the Class1 UV Total Pressure Governor System. The UV Total Pressure Governor System (SPGS) is a J1939 CAN based pressure governing system that consists of a UV-TPG display, pressure transducers and associated wiring. The UV-TPG must be capable of dual station control allowing the system to be operated from separate locations on the apparatus (dual systems do not require additional transducers). The UV-TPG advanced diagnostic capability instantly notifies the operators of any out of parameter condition. It also notifies the operator of actions performed and suggests operation methods in the event of an out of parameter condition. Graphic diagnostics also provides wiring and troubleshooting information.

UV-TPG DISPLAY

The UV-TPG display utilizes Class1's UltraView technology. It is a custom tooled and programmed, 4.3 inch, full color LCD display with an (8) buttons. It shall be bonded for direct sunlight viewing. The UV-TPG is sealed to IP67 and allows for flush, pedestal or rear mounting options. The UV-TPG display can be oriented in either the portrait or landscape orientations. The UV-TPG display provides the interface to the Engine Control Module (ECM) mounted on the engine. The UV-TPG display will operate as a pressure sensing governor (PSG) utilizing the engines J1939 CAN data for optimal resolution and response. The UV-TPG display utilizes control algorithms that minimize pressure spikes during low or erratic NTwater supply situations. The UV-TPG display shall be backwards compatible to any engine that supplies J1939 RPM, Temperature and Oil Pressure information providing the ability to maintain a consistent fleet fire-fighting capability and reduce operator cross training and confusion. The UV-TPG display shall have the ability to use either a 300 PSI or 600 PSI pressure transducers for discharge pressure.

The UV-TPG display is capable of storing up to 12 different languages. It shall provide the operator with the ability to adjust the display brightness for day and night mode operations. The following parameters visible at all times:

- Pump Discharge Pressure
- Engine RPM
- Engine Oil Pressure
- Engine Coolant Temperature
- Transmission Temperature
- System Voltage
- Throttle Ready Interlock Status
- Pump Engaged Interlock Status
- OKAY to Pump Interlock Status
- Operating Mode Status (RPM or Pressure)
- Target Pressure Indication (when in pressure mode)

Option ID:UPOxxxxxxx QTY:1
Pump Hour Meter

PUMP HOUR METER

There shall be a pump hour meter provided and installed inside the pump compartment. The hour meter shall be activated only when the water pump has been engaged.

Option ID:002210 QTY:1
Intake Relief Valve, Pump, Elkhart, Factory Preset

INTAKE RELIEF VALVE

An Elkhart Brass intake relief valve shall be installed on the suction side of the pump. The valve shall be the preset type, adjustable from 75 to 250 PSI, and shall be designed to prevent vibration from altering the setting. The relief outlet shall be directed below the pump with the discharge terminating in a 2-1/2" male NH threads connection. The discharge shall be away from the pump operator and labeled "Do Not Cap".

Option ID:006588 QTY:1
Primer, Trident, AirPrime (3-Barrel), Air-Operated Valve (31.001.7)

TRIDENT PRIMING PUMP

The priming pump shall be a Trident Emergency Products three-barrel, compressed air powered, high efficiency, multi-stage, venturi based AirPrime System. All wetted metallic parts of the priming system are to be of brass and stainless steel construction. A pressure protection valve shall be installed with the priming pump. A single panel mounted control shall activate the priming pump and open the priming valve to the pump.

Option ID:000112 QTY:1
Master Drain Valve, Trident

MASTER DRAIN VALVE

A Trident manifold drain valve assembly shall be supplied. This drain shall provide the capability to drain the entire pump by turning a single control. The valve assembly shall consist of a stainless steel plate and shaft in a bronze body with multiple ports. The drain valve control shall be mounted on the driver's side pump panel and labeled "Master Drain".

Option ID:000087 QTY:1
Overheat Protection Manager (OPM), Waterous, With Lights

WATEROUS OVERHEAT PROTECTION MANAGER WITH INDICATOR LIGHTS

A Waterous Overheat Protection Manager (OPM) shall be installed on the pump. The relief valve shall automatically relieve water from the pump when the temperature of the pump water exceeds 140° F. In addition, a warning light on the pump panel shall be

triggered by a thermal switch when the water in the pump reaches 180° F. The warning light acts as an additional protection device if the temperature inside the pump keeps rising although the valve is open. The valve shall automatically reset after activation.

Option ID:005848 QTY:1

Pump Color Painted Gray - Intakes Primary Body Color

PAINT PUMP GRAY/PAINT INTAKES PRIMARY BODY COLOR

The pump body shall be painted with AkzoNobel High Solids polyurethane paint. The paint color shall be a neutral gray. The pump enclosure shall be painted the same color as the apparatus body.

The main intake(s) and auxiliary intake valves shall be painted with a AkzoNobel High Solids polyurethane paint. The paint color shall be the same as the apparatus body.

Option ID:901166 QTY:1

Pump Manuals Watrous, (2)

PUMP MANUALS

Two (2) Pump Operation and Maintenance manuals shall be provided in digital format with the apparatus.

Option ID:111069 QTY:1

Pump and Engine Cooling System, Inn. Cntrls, 3/8" I.D., Hose, Controls on Pump Panel

PUMP AND ENGINE COOLING SYSTEM

A pump and engine cooling system shall be provided on the apparatus. The cooling system shall keep the engine cool when running for long periods of time and the pump cool during long periods of pumping when water is not being discharged. The cooling system shall also be set up in a way that the cooling system lines can be easily drained through the master pump drain.

The cooling system lines shall consist of high-temperature 3/8" (inside diameter) hose. The engine cooling lines shall be installed with one (1) line going from the discharge side of the water pump through an Innovative Controls model 3008220-2-2, 3/8" in-line quarter turn ball valve assembly and continuing on to the chassis heat exchanger. The return line from the heat exchanger shall then run into the suction side of the pump. The pump cooling lines shall be installed with one (1) line going from the discharge side of the water pump through an Innovative Controls model 3008220-2-2, 3/8" in-line quarter-turn ball valve assembly up to the water tank. At the water tank, the pump cooling line shall be plumbed into a 3/8" check valve on the "Tank Fill" valve. The check valve shall prevent tank water from back flowing into the pump when the cooling system is not in use. A return line from the water tank shall be plumbed into the water pump.

The engine cooling system valve shall be controlled on the operator's panel, and shall be clearly labeled, "Engine Cooler".

The pump cooling system valve shall be controlled on operator's panel, and shall be clearly labeled, "Pump Cooler".

Option ID:100743 QTY:1

Foam System, Eductor, Akron, 3096 Bypass, 95 GPM, Class A, Flush System

FOAM EDUCTOR

An Akron Brass, model 3096, built-in bypass type foam eductor rated at 95 GPM shall be installed on the apparatus. The eductor shall be set up to utilize Class A foam. A metering valve shall be located on the operator's control panel and shall be labeled with a stainless steel instruction plate. The metering valve shall have positive 1/4, 1/2, 1, 3 and 6 percent settings. A check valve shall be installed in the foam pick-up assembly to prevent back flow of water from diluting the foam concentrate. The foam eductor system shall be installed with all appropriate warning labels and testing in accordance with NFPA 1901, current edition.

FLUSH SYSTEM

A single foam flush system shall be installed to provide a clean water flush of the foam concentrate pump preventing foam concentrates from mixing and possible jelling. Clean water from the booster tank shall be plumbed to a 1/4 turn valve located on the pump panel. The valve shall be capable of operating pressures to 500 PSI.

Shop Note: Only one (1) fill tube for the Foam Refill System

Option ID:980014 QTY:1

Foam System Testing, Single System

FOAM PROPORTIONING SYSTEM TESTING

The foam proportioning system shall be tested and certified after final installation in accordance with NFPA 1901, current edition.

Option ID:006643 QTY:1

Manifold, Waterous, Standard, Side Mounts, Non-Foam

PLUMBING MANIFOLD

The plumbing manifold shall consist of the inlet side manifold and the discharge side manifold. Galvanized Victaulic couplings shall be used wherever possible for ease of maintenance and superior corrosion protection.

The inlet side of the plumbing manifold shall utilize schedule 10, 304-grade stainless steel tubing and preformed elbows for inlets that are larger than 3". Side auxiliary inlets that are 3" or smaller shall utilize schedule 40, 304-grade stainless steel threaded tubing and preformed elbows. The inlet manifold shall thread into the pump auxiliary inlet ports and each inlet valve shall thread onto the inlet manifold.

The discharge side of the plumbing manifold shall utilize schedule 40, 304-grade stainless steel tubing and preformed elbows to ensure the quality of the manifold where

welds are required. The discharge manifold shall connect to the pump discharge ports using 1/2" stainless steel flanges that shall be machined to seat an O-ring to ensure a leak proof seal. Each discharge shall derive from a port on the manifold assembly connected to a discharge valve with 1/2" 304-grade stainless steel flanges. Discharges that terminate in a location other than the pump module (i.e. rear discharges) that do not require welding shall utilize a combination of high-pressure flex hose and schedule 10, 304-grade stainless steel tubing to allow flexibility between the body and the pump module.

Option ID:910589 QTY:1

Gauge Brand, Thuemling, 2-1/2" Liquid Filled (No Bezel) - PSI 0-400

THUEMLING DISCHARGE GAUGES - 2-1/2" - 0-400 PSI

The discharge gauges on the apparatus shall be 2-1/2" diameter Thuemling pressure gauges. Each pressure gauge shall read pressure in PSI and shall be capable of reading 0 to 400 PSI. Each gauge shall be fully filled with pulse and vibration dampening liquid to ensure proper operations to minus 40 degrees and to reduce lens condensation. A removable polished, stainless steel trim ring shall be provided with each gauge. Each gauge will have black markings on a white dial.

Option ID:006940 QTY:1

Master Gauges, Thuemling, 4-1/2", Liquid Filled, PSI -30-0-400

MASTER PUMP GAUGES

The pump vacuum and pressure gauges shall be supplied by Thuemling. Each gauge shall be fully filled with pulse and vibration dampening Interlube to insure proper operations to minus 40 degrees and to reduce lens condensation. The gauge shall read -30 to 0 to 400 PSI and shall be a minimum of 4-1/2" in diameter.

Option ID:111067 QTY:1

Test Ports, Pressure/Vacuum, Inn. Cntrls, Operators Panel

The test port manifold shall be from Innovative Controls and feature solid one-piece cast brass manifold construction located on the pump operator's panel. Removable chrome plated plugs shall be in two test ports, which shall protrude through the surface of the apparatus pump panel or subpanel for easy removal during manual pressure testing.

Plumbing ports 1-4 shall be behind the panel after installation. Each of these four ports (two on vacuum side and two on pressure side) shall have SAE brass fittings or plugs and be plumbed as needed into the vacuum and pressure lines and gauges.

Pressure ports 5 and 6 shall accept 1/4" NH fittings, plugs, or pressure transducers for real-time vacuum and/or pressure readings from one or both sides of the manifold. Port 5 shall be on the vacuum side and Port 6 shall be on the pressure side of the manifold. The location of these ports shall allow the manifold to totally drain if desired.

The test port manifold may be assembled to a decorative chrome-plated die-cast zinc bezel. This bezel shall reside on the outside of the panel after installation and hold a sub-surface printed polycarbonate overlay that will label each of the two exposed test

ports – one shall be labeled 'Vacuum' or 'VAC' and the other 'Pressure' or 'PRES'. This label shall cover the mounting screws.

Option ID:910527 QTY:1

Hardware Brand, South Park, NH Intake Swivels, NH Discharges, TFT Storz

HARDWARE BRAND

The non-Storz discharge and intake fittings provided on this apparatus shall be South Park Corp. Brand. The adapter/cap/plug fittings shall be manufactured from high-quality brass that shall be polished to remove manufacturing irregularities with a chrome finish applied to the polished surface.

The Storz discharge and intake fittings provided on this apparatus shall be Task Force Tips Brand. For corrosion resistance, the adapter shall be constructed of hard coat anodized aluminum alloy and include a polymer bearing ring for prevention of galvanic corrosion.

The auxiliary intake(s) shall terminate with NH swivels, and the discharges shall terminate with male NH threads.

Option ID:100377 QTY:1

Drains, Innovative Controls, Manual Lift Handle

DISCHARGE, PRE-CONNECT, AND INTAKE DRAINS

An Innovative Controls 3/4" quarter turn drain valve shall be included on each discharge, gated intake, and steamer valve (if applicable). A side stem, long stroke chrome plated lift handle shall be provided on the drain valve to facilitate use with a gloved hand. The drain valve shall have a verbiage tag that angles upward so that it can easily be seen and read by the operator before opening. The drain valve shall be located just above the running board and below the pump panel to reduce clutter in the pump panel area. The drain valve shall be connected to the valve with a flexible hose that is routed in such a manner as to assure complete drainage to below the apparatus. A matching color coded bezel shall be included.

AUTOMATIC DRAINS

A Class 1 automatic drain shall be installed on the deluge valve (if applicable). The drains shall also be located in low laying areas (i.e., front discharge) The Drains will open whenever the pressure in the line drops below 6 PSI.

Shop Note: No auto drains will be installed on the front bumper or crosslays. These need to be manual.

Option ID:911305 QTY:1

Plumbing Labels, OEM Standard

PLUMBING LABELS

Innovative Controls brand labels shall be used to identify any pump valve controller,

gauge, or drain on the apparatus. The labels shall be color coded in accordance with NFPA 1901, current edition compliance. The colors and verbiage of the labels shall be the OEM standard label package. Each discharge label shall have a unique color and shall have verbiage to identify it.

For easy identification of each component, the verbiage of each label shall be size 22 pt, font "Helvetica Neue Condensed Bold"

Option ID: Tank/Pump Plumbing Labels QTY: 1

Tank/Pump Plumbing Labels - See label order form (required)

See label order form (required)

Option ID: 100349 QTY: 1

Pump to Tank Fill, 2", Akron 8800 2" Manual Valve, IC Push-Pull Handle

2" TANK FILL

A 2" tank fill shall be plumbed from the pump to the tank. Installation shall be completed with 2" rubber hose and stainless steel hose couplings.

An Akron Brass, model 8820, 2" Swing-Out valve shall be provided. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a self-locking ball feature using an automatic friction lock design and specially designed flow optimizing stainless steel ball. The valve shall not require lubrication of seats or any other internal waterway parts, and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. The valve shall carry a ten (10) year warranty by the valve manufacturer.

Option ID: 100310 QTY: 1

Tank to Pump, 3", Akron 8800 3" Manual Valve, IC Push-Pull Handle

3" TANK-TO-PUMP

A 3" tank-to-pump shall be plumbed with a flexible hose from the tank to the suction side of the pump. An Akron Brass, model 8830, 3" Swing-Out valve shall be provided. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a self-locking ball feature using an automatic friction lock design and specially designed flow optimizing stainless steel ball. The valve shall not require lubrication of seats or any other internal waterway parts and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. The valve shall also include a necessary B3-SH pump flange adapter, which shall be specifically used for the tank-to-pump line to properly adjust the plumbing based on the pitch of the pump. The valve shall carry a ten (10) year warranty by the valve manufacturer.

A check valve shall be between the pump suction and the booster tank valve. The check valve shall eliminate back flow into the water tank when the pump is connected to a pressurized source.

The valve shall be actuated by a manual actuator. The manual actuator shall be controlled by an Innovative Controls push/pull T-handle.

Shop Note: Reverse the tank lever handle; label "PULL TO CLOSE"

Option ID:100381 QTY:1

Main Intake, Driver Side, 6", Short Tube, Full-Body Pump, MNST

6" DRIVER SIDE MAIN INTAKE

A 6" main intake shall be located on the driver's side of the pump module. The suction fittings shall include a removable die-cast screen to provide cathodic protection for the pump thus reducing corrosion. A short steamer barrel shall be installed to accommodate an intake valve without exceeding the legal overall body width. The intake shall terminate male NH threads.

Option ID:UPOxxxxxx QTY:1

TFT 6" FNST x 5" Storz, Jumbo Ball intake Valve AB3ST-NX, 5" Storz Cap with Lanyard A01ST

There shall be a TFT model AB3ST-NX manually operated, jumbo ball intake valve provided. The valve shall be equipped with an adjustable integral relief/dump valve under the main valve body. The connections shall be a 5" swivel Storz outlet with 30 degree slant x 6" long handle swivel NST female connection. The gate valve shall be equipped with a hand wheel gear operated gate type control valve located on front of the valve. A carrying handle shall be cast into the top of the valve and a quarter turn air bleeder valve shall be installed.

There shall be one (1) TFT model A01ST, 5" Storz blind cap with lanyard provided.

Option ID:UPO0050330 QTY:1

None

None

Option ID:UPO0050331 QTY:1

None

None

Option ID:UPO0046300 QTY:1

No Cap

No Cap

Option ID:002588 QTY:1

Auxiliary Intake, Driver-Side, 2-1/2", Fully Recessed

2-1/2" DRIVER'S SIDE AUXILIARY INTAKE

A 2-1/2" gated auxiliary intake with 2-1/2" plumbing shall be provided on the driver's side of the pump module. The auxiliary intake shall be fully recessed behind the panel in order to keep the valve protected from the elements.

Option ID:007059 QTY:1

Valve, 2-1/2", Akron, Manual, 8825, Stainless Ball, TS Handle

An Akron Brass, model 8825, 2-1/2" Swing-Out valve shall be provided. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a specially designed flow optimizing stainless steel ball. The valve shall not require lubrication of seats or any other internal waterway parts and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. The valve shall be manufactured and assembled in the United States. The valve shall carry a ten (10) year warranty by the valve manufacturer.

The valve shall be actuated by an Akron Brass, model TS manual actuator installed directly on the valve. The handle shall allow the valve to be controlled directly at the valve.

Option ID:001246 QTY:1

Plug, NH, 2-1/2", South Park, HPC3008AC

One (1) 2-1/2" NH thread rocker lug chrome plated vented plug, complete with cable or chain, shall be provided.

Option ID:100385 QTY:1

Main Intake, Officer Side, 6", Short Tube, Full-Body Pump, MNST

6" OFFICER SIDE MAIN INTAKE

A 6" main intake shall be located on the officer's side of the pump module. The suction fittings shall include a removable die-cast screen to provide cathodic protection for the pump thus reducing corrosion. A short steamer barrel shall be installed to accommodate an intake valve without exceeding the legal overall body width. The intake shall terminate male NH threads.

Option ID:UPOxxxxxxx QTY:1

TFT 6" FNST x 5" Storz, Jumbo Ball intake Valve AB3ST-NX, 5" Storz Cap with Lanyard A01ST

There shall be a TFT model AB3ST-NX manually operated, jumbo ball intake valve provided. The valve shall be equipped with an adjustable integral relief/dump valve under the main valve body. The connections shall be a 5" swivel Storz outlet with 30 degree slant x 6" long handle swivel NST female connection. The gate valve shall be equipped with a hand wheel gear operated gate type control valve located on front of the valve. A carrying handle shall be cast into the top of the valve and a quarter turn air bleeder valve shall be installed.

There shall be one (1) TFT model A01ST, 5" Storz blind cap with lanyard provided.

Option ID:UPO0046301 **QTY:**1

No Cap

No Cap

Option ID:Intake Labels **QTY:**1

Intake Labels - See label order form (required)

See label order form (required)

Option ID:002545 **QTY:**1

Discharge, Driver-Side, 2-1/2", NST (250 GPM NFPA Rated)

2-1/2" DRIVER'S SIDE DISCHARGE

A 2-1/2" discharge with 2-1/2" plumbing shall be located on the driver's side of the pump compartment. The discharge shall terminate with male NH thread.

Option ID:910534 **QTY:**1

Foam Capable Discharge

The discharge shall be foam capable.

Shop Note: This is the only foam capable discharge. There will be special plumbing involved for the Akron Foam Eductor,

Option ID:111712 **QTY:**1

Valve, 2-1/2", Akron, Manual, 8625, Stainless Ball, Innovative Controls Push Pull Controller (Rack and Sector)

An Akron Brass model 8625 2-1/2" Swing-Out valve shall be provided. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a specially designed flow optimizing stainless steel ball. The valve shall not require lubrication of seats or any other internal waterway parts and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. The valve shall be manufactured and assembled in the United States. The valve shall carry a ten (10) year warranty by the valve manufacturer.

The valve shall be actuated by an Akron Brass rack and sector actuator installed on the valve. The manual actuator shall be controlled by an Innovative Controls push/pull T-handle.

Option ID:005849 **QTY:**1

Pressure Gauge, 2-1/2", Thuemling, Liquid Filled - psi 0-400

The discharge shall have a 2-1/2" gauge with a display range from 0 to 400 psi.

Option ID:100542 **QTY:**1

Elbow (45 Deg.) 2-1/2" FNH x 2-1/2" MNH (SE394505AC) - Adapter, 2-1/2" FNH x 1-1/2" MNH (A3720AC) - NH Cap (HCC2804AC), Chrome, South Park

One (1) 2-1/2" female NH thread swivel rocker lug x 2-1/2" male NH thread 45 degree chrome plated elbow adapter shall be provided.

One (1) 2-1/2" female NH thread rocker lug x 1-1/2" male NH thread rigid chrome plated adapter shall be provided.

One (1) 1-1/2" NH thread rocker lug chrome plated vented cap, complete with cable or chain, shall be provided.

Option ID:002545 QTY:1

Discharge, Driver-Side, 2-1/2", NST (250 GPM NFPA Rated)

2-1/2" DRIVER'S SIDE DISCHARGE

A 2-1/2" discharge with 2-1/2" plumbing shall be located on the driver's side of the pump compartment. The discharge shall terminate with male NH thread.

Option ID:111712 QTY:1

Valve, 2-1/2", Akron, Manual, 8625, Stainless Ball, Innovative Controls Push Pull Controller (Rack and Sector)

An Akron Brass model 8625 2-1/2" Swing-Out valve shall be provided. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a specially designed flow optimizing stainless steel ball. The valve shall not require lubrication of seats or any other internal waterway parts and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. The valve shall be manufactured and assembled in the United States. The valve shall carry a ten (10) year warranty by the valve manufacturer.

The valve shall be actuated by an Akron Brass rack and sector actuator installed on the valve. The manual actuator shall be controlled by an Innovative Controls push/pull T-handle.

Option ID:005849 QTY:1

Pressure Gauge, 2-1/2", Thuemling, Liquid Filled - psi 0-400

The discharge shall have a 2-1/2" gauge with a display range from 0 to 400 psi.

Option ID:100542 QTY:1

Elbow (45 Deg.) 2-1/2" FNH x 2-1/2" MNH (SE394505AC) - Adapter, 2-1/2" FNH x 1-1/2" MNH (A3720AC) - NH Cap (HCC2804AC), Chrome, South Park

One (1) 2-1/2" female NH thread swivel rocker lug x 2-1/2" male NH thread 45 degree chrome plated elbow adapter shall be provided.

One (1) 2-1/2" female NH thread rocker lug x 1-1/2" male NH thread rigid chrome plated adapter shall be provided.

One (1) 1-1/2" NH thread rocker lug chrome plated vented cap, complete with cable or chain, shall be provided.

Option ID:002538 QTY:1

Discharge, Officer-Side, 2-1/2", NST (250 GPM NFPA Rated)

2-1/2" OFFICER'S SIDE DISCHARGE

A 2-1/2" discharge with 2-1/2" plumbing shall be located on the officer's side of the pump compartment. The discharge shall terminate with male NH thread.

Option ID:100659 QTY:1

Valve, 2-1/2", Akron, Manual, 8825, Stainless Ball, Innovative Controls Push Pull Controller (Operators Panel)

An Akron Brass, model 8825, 2-1/2" Swing-Out valve shall be provided. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a specially designed flow optimizing stainless steel ball. The valve shall not require lubrication of seats or any other internal waterway parts and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. The valve shall be manufactured and assembled in the United States. The valve shall carry a ten (10) year warranty by the valve manufacturer.

The valve shall be actuated by a manual actuator installed on the valve. The manual actuator shall be controlled by an Innovative Controls push/pull T- handle at the pump operator's panel.

Option ID:005849 QTY:1

Pressure Gauge, 2-1/2", Thuemling, Liquid Filled - psi 0-400

The discharge shall have a 2-1/2" gauge with a display range from 0 to 400 psi.

Option ID:100527 QTY:1

Elbow (30 Deg.) 2-1/2" FNH x 2-1/2" MNH (SE393010AC) - NH Cap (HCC2808AC), Chrome, South Park

One (1) 2-1/2" female NH thread swivel rocker lug x 2-1/2" male NH thread 30 degree chrome plated elbow adapter shall be provided.

One (1) 2-1/2" NH thread rocker lug chrome plated vented cap, complete with cable or chain, shall be provided.

Option ID:002553 QTY:1

Discharge, Officer-Side, 4", NST (625 GPM NFPA Rated)

4" OFFICER'S SIDE DISCHARGE

A 4" large diameter discharge, with 4" plumbing, shall be located on the officer's side of the pump compartment. The discharge shall terminate with male NH thread.

Option ID:100642 QTY:1

Valve, 3", Akron, Gear, 8630, Stainless Ball, 4" Handwheel with Vert. Position Indicator

An Akron Brass, model 8630, 3" Swing-Out valve shall be provided. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a specially designed flow optimizing stainless steel ball. The valve shall not require lubrication of seats or any other internal waterway parts and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. The valve shall be manufactured and assembled in the United States. The valve shall carry a ten (10) year warranty by the valve manufacturer.

The valve shall be actuated by an Akron Brass manual gear actuator installed on the valve. The gear actuator shall operate at a 50:1 gear ratio, which operates from fully open to fully closed in twelve (12) rotations.

The gear actuator shall be controlled by an Akron Brass 4" handwheel valve controller. The handwheel worm gear shall be connected to the remote mounted valve via a rod assembly. The handwheel shall turn a gear sector mounted on the valve for smoother and easier operations under pressure. A position indicator shall show the position of the ball valve in accordance with NFPA 1901, current edition. Opening and closing speed shall comply with the current NFPA standard to minimize effects of water hammer.

Option ID:005849 QTY:1

Pressure Gauge, 2-1/2", Thuemling, Liquid Filled - psi 0-400

The discharge shall have a 2-1/2" gauge with a display range from 0 to 400 psi.

Option ID:100612 QTY:1

Elbow (30 Deg.) 4" FNH x 5" Storz (AH3ST-NP), Storz Cap (A01ST), TFT

One (1) 5" Storz x 4" female NH thread swivel rocker lug 30 degree elbow adapter shall be provided. The elbow shall be constructed of hard coat anodized aluminum alloy and have a silver powder coat finish inside and out.

One (1) 5" Storz blind cap, complete with lanyard, shall be provided.

Option ID:121828 QTY:1

Discharge, Front Bumper Driver-Side, 1-1/2", Chassis Installed Plumbing, Above Gravelshield, NST

1-1/2" FRONT BUMPER DISCHARGE

A 1-1/2" discharge shall be located above the gravel shield on the driver's side of the front bumper. The discharge shall be plumbed with 2" chassis installed stainless steel plumbing and OEM installed stainless steel plumbing and high-pressure flex hose with stainless steel couplings. The discharge shall terminate with male NH thread.

The discharge shall have Class1 automatic drains installed in the low routed areas below the manual drain. The automatic drains shall open whenever the pressure in the line

drops below 6 PSI.

Shop Note: The front bumper shall NOT have any auto drains, they will be manual.

Option ID:100658 QTY:1

Valve, 2-1/2", Akron, Manual, 8825, Stainless Ball, Innovative Controls Push Pull Controller

An Akron Brass, model 8825, 2-1/2" Swing-Out valve shall be provided. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a specially designed flow optimizing stainless steel ball. The valve shall not require lubrication of seats or any other internal waterway parts and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. The valve shall be manufactured and assembled in the United States. The valve shall carry a ten (10) year warranty by the valve manufacturer.

The valve shall be actuated by a manual actuator installed on the valve. The manual actuator shall be controlled by an Innovative Controls push/pull T-handle.

Option ID:005849 QTY:1

Pressure Gauge, 2-1/2", Thuemling, Liquid Filled - psi 0-400

The discharge shall have a 2-1/2" gauge with a display range from 0 to 400 psi.

Option ID:910526 QTY:1

Preconnect Discharge

The discharge shall be designated as a pre-connect so no cap and chain shall be required.

Option ID:006998 QTY:1

Crosslays, Above Front Stabilizers, (2) 1-1/2" and (1) 2-1/2"

CROSSLAY CONFIGURATION

Two (2) 1-1/2" and one (1) 2-1/2" crosslay pre-connects shall be located above the front stabilizers. The housing shall be adequately lit to meet requirements. High-pressure flex hose with stainless steel couplings shall be used in the plumbing.

A 90 degree swivel elbow shall be utilized to keep the hose from kinking when pulled from either side of the apparatus. The swivel for each crosslay shall be located outboard for ease of making connections while changing hose.

There shall be (2) 9" On-Scene Night Axe lights with housings in the crosslay area to provide adequate lighting to meet requirements. The lights will be activated when the park brake is set.

The pre-connect hose beds shall be sized to accommodate the following hose load:

Option ID:007013 QTY:1

Pre-connect Hose Bed Housing Coating, Abraded Finish

The interior of the pre-connect hose bed shall have a maintenance free abraded finish.

Option ID:007018 QTY:1

Flooring, Dura-Dek

FLOORING

The floor of the pre-connect area shall be covered with Dura-Dek fiber reinforced material. The Dura-Dek shall have "T" beams in parallel connected with cross slats that are first mechanically bonded and then epoxied. The "T" sections shall be spaced 3/4" apart to allow for drainage and ventilation.

Option ID:000205 QTY:1

Crosslay Rollers

ROLLERS

Stainless steel rollers shall be provided at each end of the crosslay hose bed to facilitate deployment of hose. Vertical rollers shall be installed on each side of the hose bed opening and a horizontal roller shall be installed under the opening.

Option ID:009842 QTY:1

Crosslay Dividers (2), Abraded Aluminum, Notched

DIVIDERS

Two (2) dividers shall be in the crosslay area. Each divider shall be fabricated of 3/16" aluminum and shall be mounted in a channel on each end for adjustability. A notch in each divider shall be provided to accommodate a nozzle. The dividers shall have a maintenance free abraded finish.

Option ID:007020 QTY:1

Crosslay Cover, Hinged Tread Plate, Side Mount

CROSSLAY COVER

An aluminum non-slip tread plate cover shall be installed on the crosslay hose bed. The cover shall not interfere with hose loading when in the open position. When in the open position the cover shall remain open due to automatically engaging mechanisms that require no type of latch operation to engage or release. The cover shall be provided with one full length stainless steel piano style hinge that shall attach the cover to the body. The cover shall be light yet rigid. Opening of the cover may be performed by one person on one side of the apparatus. The cover shall be rigid enough to support weight without deformation.

Shop Note: Non Skid tread plate to be used.

Option ID:110291 QTY:1

Crosslay End Covers, Vinyl, C-Rail Top and Footman Loop / J-Hook on Bottom, Black

END COVERS

A heavy duty end flap/cover shall be located on each end of the preconnected crosslays. The top of the end covers shall be connected to the tread plate top cover through a C-Rail channel. The bottom of the cover shall be connected using footman loop and J-Hooks with an adjustable buckle. The cover color shall be black.

Option ID:910701 QTY:1

Pre-connect, Crosslay/Speedlay, 1-1/2", NST

1-1/2" PRE-CONNECT

A 1-1/2" pre-connect with 2" plumbing shall be provided. The pre-connect shall terminate out a swivel male NST threads.

Shop Note: The crosslay shall NOT have any auto drains, they will be manual.

Option ID:910654 QTY:1

Crosslay Load, 200' of 1-3/4" Hose, Single Stack

The 1-1/2" crosslay pre-connect shall have a capacity of 200' of 1-3/4" double jacket fire hose stored in a single stack.

Option ID:100653 QTY:1

Valve, 2", Akron, Manual, 8820, Stainless Ball, Innovative Controls Push Pull Controller

An Akron Brass, model 8820, 2" Swing-Out valve shall be provided. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a specially designed flow optimizing stainless steel ball. The valve shall not require lubrication of seats or any other internal waterway parts and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. The valve shall be manufactured and assembled in the United States. The valve shall carry a ten (10) year warranty by the valve manufacturer.

The valve shall be actuated by a manual actuator installed on the valve. The manual actuator shall be controlled by an Innovative Controls push/pull T- handle.

Option ID:005849 QTY:1

Pressure Gauge, 2-1/2", Thuemling, Liquid Filled - psi 0-400

The discharge shall have a 2-1/2" gauge with a display range from 0 to 400 psi.

Option ID:910526 QTY:1

Preconnect Discharge

The discharge shall be designated as a pre-connect so no cap and chain shall be required.

Option ID:910701 QTY:1

Pre-connect, Crosslay/Speedlay, 1-1/2", NST

1-1/2" PRE-CONNECT

A 1-1/2" pre-connect with 2" plumbing shall be provided. The pre-connect shall terminate out a swivel male NST threads.

Shop Note: The crosslay shall NOT have any auto drains, they will be manual.

Option ID:910654 QTY:1

Crosslay Load, 200' of 1-3/4" Hose, Single Stack

The 1-1/2" crosslay pre-connect shall have a capacity of 200' of 1-3/4" double jacket fire hose stored in a single stack.

Option ID:100653 QTY:1

Valve, 2", Akron, Manual, 8820, Stainless Ball, Innovative Controls Push Pull Controller

An Akron Brass, model 8820, 2" Swing-Out valve shall be provided. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a specially designed flow optimizing stainless steel ball. The valve shall not require lubrication of seats or any other internal waterway parts and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. The valve shall be manufactured and assembled in the United States. The valve shall carry a ten (10) year warranty by the valve manufacturer.

The valve shall be actuated by a manual actuator installed on the valve. The manual actuator shall be controlled by an Innovative Controls push/pull T- handle.

Option ID:005849 QTY:1

Pressure Gauge, 2-1/2", Thuemling, Liquid Filled - psi 0-400

The discharge shall have a 2-1/2" gauge with a display range from 0 to 400 psi.

Option ID:910526 QTY:1

Preconnect Discharge

The discharge shall be designated as a pre-connect so no cap and chain shall be required.

Option ID:910702 QTY:1

Pre-connect, Swivel, Crosslay/Speedlay, 2-1/2", NST

2-1/2" PRE-CONNECT

A 2-1/2" pre-connect with 2-1/2" plumbing shall be provided. The pre-connect shall terminate out a swivel NST.

Shop Note: The crosslay shall NOT have any auto drains, they will be manual.

Option ID:910651 QTY:1

Crosslay Load, 150' of 2-1/2" Hose, Single Stack

The 2-1/2" crosslay pre-connect shall have a capacity of 150' of 2-1/2" double jacket fire hose stored in a single stack.

Option ID:100658 QTY:1

Valve, 2-1/2", Akron, Manual, 8825, Stainless Ball, Innovative Controls Push Pull Controller

An Akron Brass, model 8825, 2-1/2" Swing-Out valve shall be provided. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats. The valve shall be capable of dual directional flow while incorporating a specially designed flow optimizing stainless steel ball. The valve shall not require lubrication of seats or any other internal waterway parts and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. The valve shall be manufactured and assembled in the United States. The valve shall carry a ten (10) year warranty by the valve manufacturer.

The valve shall be actuated by a manual actuator installed on the valve. The manual actuator shall be controlled by an Innovative Controls push/pull T-handle.

Option ID:005849 QTY:1

Pressure Gauge, 2-1/2", Thuemling, Liquid Filled - psi 0-400

The discharge shall have a 2-1/2" gauge with a display range from 0 to 400 psi.

Option ID:910526 QTY:1

Preconnect Discharge

The discharge shall be designated as a pre-connect so no cap and chain shall be required.

Option ID:100768 QTY:1

Booster Reel, Hannay, Aluminum, Polished, Electric Rewind, 200' of 1" Hose Capacity

BOOSTER REEL

A Hannay aluminum fabricated electric rewind booster reel, with a capacity of 200' of 1" booster hose, shall be installed on the apparatus. The booster reel shall have a polished finish and shall not be painted. An automatic brake and an auxiliary manual rewind crank shall be supplied. One (1) set of rollers shall be provided. One (1) set of rollers shall be installed.

Option ID:910703 QTY:1

Booster Reel Location, Dunnage, Above the Pump

The booster reel shall be mounted above the pump in the dunnage compartment.

Shop Note: The booster reel will be mounted on the officers side next to the cord reel.

Option ID:100648 QTY:1

Valve, 1-1/2", Akron, Manual, 8815, Stainless Ball, Innovative Controls Push Pull Controller

An Akron Brass, model 8815 1-1/2" Swing-Out valve shall be provided. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats.

The valve shall be capable of dual directional flow while incorporating a specially designed flow optimizing stainless steel ball. The valve shall not require lubrication of seats or any other internal waterway parts and must be capable of swinging out of the waterway for maintenance by the removal of six bolts. The valve shall be manufactured and assembled in the United States. The valve shall carry a ten (10) year warranty by the valve manufacturer.

The valve shall be actuated by a manual actuator installed on the valve. The manual actuator shall be controlled by an Innovative Controls push/pull T- handle.

Option ID:100809 QTY:1

Booster Hose, 1", 800 lb Test, 200', (2) 100' Sections

BOOSTER HOSE

Two (2) sections of 100' x 1" of 800 lb. test booster hose coupled with 1" NH thread pyrolite couplings shall be installed on the booster reel.

Option ID:100831 QTY:1

Rewind Switches, Booster Reel, (1) Officer's Side Pump Panel, (1) Foot Switch Below Running Board

One (1) rubber covered push button switch shall be installed on the officer's side pump panel and one (1) foot switch shall be located below the officer's side running board for the rewind control of the booster reel.

Option ID:007596 QTY:1

Discharge, Aerial Waterway, 4" (UT100'/105'/110'/125')

AERIAL WATERWAY DISCHARGE

A discharge shall be plumbed to the aerial waterway with 4" plumbing. The plumbing shall be constructed from schedule 10 stainless steel components.

Option ID:101350 QTY:1

Valve, 4", Akron, Electric, 8940, Composite Ball, 9335 Navigator Pro Controller (Valve,

Pressure, Flow)

An Akron Brass, model 8940, 4" Swing-Out valve shall be provided. The valve shall have an all brass body with flow optimizing Fusion CF composite ball with Hydromax technology. The valve shall not require lubrication of seats or any other internal waterway parts and must be capable of swinging out of the waterway for maintenance by the removal of four bolts. The valve shall carry a ten (10) year warranty by the valve manufacturer.

The valve shall be actuated by an Akron Brass electric actuator installed on the valve. The electric actuator shall have a 25:1 gear ratio, which actuates from fully open to fully close in eight (8) seconds, a clutchless motor, and utilize an electric controller with current limiting design.

The electric actuator shall be controlled by an Akron Brass, model 9335, Navigator Pro valve controller. The electric controls shall be of true position feedback design, requiring no clutches in the motor or current limiting. The unit shall be completely sealed with momentary open, close as well as an optional one (1) touch full open feature to operate the actuator. Three (3) additional buttons shall be available to be used for preset selection, preset activation, CAFS activation and menu navigation. The unit shall be capable of being connected to a Pressure Sensor and provide an LCD display showing pressure as well as valve position indication. Valve position indication shall be determined from true position feedback and indicate the exact position of the valve. The unit shall be capable of being used in conjunction with at least two (2) additional displays to control one (1) valve. The unit shall be able to be programmed to Bar, PSI or kPa for pressure. The unit shall have programmed pipe sizes and be capable of custom calibration to high and low flow ranges. The unit shall also be capable of turning on and off a solenoid used in a CAFS system. The only calibration required is to set the unit to the valve during initial set up. No other calibration shall be required. The display shall be a full color LCD display with a backlight. It shall have manual adjustment of the brightness as well as an auto-dimming option. Unit shall carry a five (5) year warranty.

Option ID:Discharge Labels QTY:1

Discharge Labels - See label order form (required)

See label order form (required)

Option ID:002956 QTY:1

Electrical System, Aerial, Weldon V-MUX Multiplex, QL-12 Harnesses, Sealed Switches

ELECTRICAL SYSTEM

Wiring harnesses shall be the automotive type, engineered specifically for the builder's apparatus, and shall meet the following criteria. Under no circumstances shall diodes, resistors, or fusible links be located within the wiring harness. All such components shall be located in an easy to access wiring junction box or the main circuit breaker area. All wire shall meet white book, baseline advanced design transit coach specification and Society of Automotive Engineers recommended practices. It shall be stranded copper wire core with cross-linked polyethylene insulation complying with SAE specification J1128. Each wire shall be hot stamp function coded every three inches starting one inch from the end and continuing throughout the entire harness. In addition to function coding, each wire shall be numbered, colored, and gauge coded.

Wire harnesses shall be protected by 275 degree Fahrenheit minimum high temperature flame retardant loom. All nodes and sealed Deutsch connectors shall be waterproof.

Harnesses shall be modular in design; main harness system subdivided into several smaller sub-harnesses. The harness subsections shall be connected using Deutsch branded, heavy duty, environmentally sealed, connectors with silicone seals and a rear insertion/removal contact system. For isolation of electrical "zones" the harness subsections shall consist of a main harness, a pump harness with a separate pump gauge panel harness, a left body harness with a separate left compartment harness, a right body harness with a separate right compartment harness, and a rear body harness with two separate rear compartment harnesses.

The main harness and three body harnesses shall interconnect at a central, easy to reach location and their connectors shall not be obstructed by other harnesses or fuel/air lines. In addition, the main and body harness connectors shall be color-coded for ease of identification with their respective colors noted on the accompanying electrical diagrams.

Where connectors are not provided by the electrical component manufacturer, all 12-volt lights and other electrical components (excluding rocker and toggle switches) shall connect to the harnesses using Deutsch brand connectors; butt connectors are considered unacceptable.

All Deutsch connectors shall meet the following criteria:

- All connectors shall be rated for three feet submersion in water.
- Temperature range from -67° F to 257° F continuous at rated current.
- All contacts shall be soldered unless a crimping tool or machine is used that gives an even and precise pressure for the terminal being used.
- All contacts shall be pull-tested to ensure their integrity.

WEATHERPROOF DOOR SWITCHES

Because of the harsh environment and susceptibility to moisture on the fire ground, the fire apparatus compartment doors shall utilize weatherproof switches. No Exceptions.

The switches shall be used for activation of the compartment lights and to provide a signal to the door open circuit in the cab.

V-MUX ELECTRICAL MANAGEMENT SYSTEM

The apparatus shall be equipped with a V-MUX Multiplex System. There are several key benefits to multiplexing, one is to reduce the number of connections in a vehicle's electrical system, because of this it is important to limit the amount of modules that control certain functions of the vehicle.

Outputs:

The outputs shall perform all the following items without added modules to perform any of the tasks:

- Load Shedding: The System shall have the capability to Load Shed with 8 levels any output. This means you can specify which outputs (barring NFPA restrictions) you would like Load Shed. Level 1 - 12.9v, Level 2 - 12.5V, Level 3 - 12.1V, Level 4 - 11.7V, Level 5 - 11.3V, Level 6 - 10.9V, Level 7 - 10.5, Level 8 - 10.1. Unlike conventional load shedding devices you can assign a level to any or all outputs. No add-on modules shall be acceptable; the module with the outputs must perform this function.
- Load Sequencing: The System shall be able to sequence from 0 8 levels any output. With 0 being no delay and 1 being a 1-second delay, 2 being a 2-second delay and so on. Sequencing reduces the amount of voltage spikes and drops on your vehicle, and can help limit damage to your charging system. No add-on modules shall be acceptable; the module with the outputs must perform this function.
- Output Device: The System shall have solid-state output devices. Each solid-state output shall be a MOS-FET (Metal Oxide Semiconductor - Field Effect Transistors); MOS-FETs are solid-state devices with no moving parts to wear out. A typical relay, when loaded to spec, has a life of 100,000 cycles. The life of a FET is more than 100 times that of a relay. No add-on modules shall be acceptable; the module with the outputs must perform this function.
- Flashing Outputs: The System shall be able to flash any output in either A or B phase, and logic is used to shut down needed outputs in park, or any one of several combined interlocks. The flash rate can be selected at either 80, or 160 FPM. This means any light can be specified with a multiplex truck with no need to add flashers. Flashing outputs can also be used to warn of problems. No add-on modules shall be acceptable; the module with the outputs must perform this function.
- PWM: The modules shall have the ability to PWM at some outputs so that a Headlight PWM module is not needed. No add-on modules shall be acceptable; the module with the outputs must perform this function.
- Diagnostics: An output shall be able to detect either a short or open circuit.

Inputs:

The inputs shall have the ability to be switched by a ground or battery signal.

The inputs shall be filtered for noise suppression via hardware and software so that RF or dirty power will not trick an input into changing its status.

System Network:

The Multiplex system shall contain a Peer-to-Peer network. A Master-Slave Type network is not suitable for the Fire/Rescue industry. A Peer-to-Peer network means that all the modules are equal on the network; a Master is not needed to tell other nodes when to talk.

System Reliability:

The Multiplex system shall be able to perform in extreme temperature conditions, from -40° to +85° C (-40 degree to +185 degree Fahrenheit) The system shall be sealed against the environment, moisture, humidity, salt or fluids such as diesel fuel, motor oil or brake fluid. The enclosures shall be rugged to withstand being mounted in various locations or compartments around the vehicle. The modules shall be protected from over voltage and reverse polarity.

Option ID:911058 QTY:1
Electrical System Test, 12 Volt

12-VOLT SYSTEMS TEST

After completion of the unit, the 12-volt electrical system shall undergo a battery of tests as listed in NFPA 1901. These tests shall include, but not be limited to:

- Reserve capacity test
- Alternator performance test at idle
- Alternator performance test at full load
- Low voltage alarm test

Certification of the results shall be supplied with the apparatus at the time of delivery.

Option ID:002842 QTY:1
Tail Lights, LED, Whelen, 600 Series, Stop-Tail (Separate) (604BTT)/Turn (604T)/Warning, 4-Light Vertical Casting

TAIL LIGHTS

There shall be a Whelen 600 series LED tail light assembly shall be installed on each side on the rear of the apparatus. Each assembly shall include the following:

- Two (2) red LED stop/tail lights
- One (1) amber LED turn light with arrow.

The lights shall be mounted in a four (4) light chrome plated composite housing. The remaining slot in the housing shall be populated with a warning light specified in the warning light section.

Option ID:002192 QTY:1
Switch, Rear Work Light, At Rear/Reverse

REAR WORK LIGHT SWITCH

A switch shall be installed above the tail light bezel on the left side of the rear of the apparatus. The switch shall be wired to the backup lights to provide additional work lighting. The rear work light circuit shall be deactivated when the park brake is disengaged. In addition to the lights being activated by the above switch, the lights shall also come on when the transmission is placed in reverse.

Option ID:006766 QTY:1
Turn Signals, (2) in Wheel Well Area, LED, Truck-Lite, Model 21

MIDSHIP TURN SIGNALS

Two (2) Truck-Lite model 21 LED midship auxiliary/turn signal lights shall be installed in the rear wheel well area, one (1) on each side of the body.

Option ID:100958 QTY:1
Ground Lights, LED, T44, Tecniq, Activation by Park Brake

PERIMETER GROUND LIGHTING

Tecniq, model T44-WD0B-1, 4" round LED lights shall be installed beneath the apparatus in areas where personnel may be expected to climb on and off the apparatus. The lights shall illuminate the ground within 30" of the apparatus to provide visibility of any obstructions or hazards. These areas shall include, but not be limited to, side running boards and the rear step area.

The lights shall be activated when the parking brake is engaged.

Option ID:006296 QTY:1

Parking Lights, Rear Fender Wells, LED, Innovative Lighting

PARKING LIGHTS

Two (2) Innovative Lighting LED parking lights shall be provided on the apparatus. These lights shall be installed in the rear fender wells, one (1) per side, appropriately located based on the side layouts. The lights shall activate when the transmission is placed in reverse and shall be aimed toward the rear.

Option ID:007397 QTY:1

Clearance Lights, With Rubber Extension Arms, LED, Grote (65282) and Truck-Lite (35741R ID), Red

CLEARANCE LIGHTS

Grote red LED clearance lights shall be installed in the outside corners of the rear bumper and a Truck-Lite bar cluster located in the lower middle portion of the rear of the apparatus. Clearance reflectors shall be placed on the apparatus to be in full compliance with applicable ICC and DOT codes and regulations.

Two (2) extension marker lights (rubber arm style) shall be installed at the rear portion of the body. The lights shall be attached to the back wall of the rear flex joint area. These lights shall aid the driver as to the location of the rear of the body during driving operations. The lights shall have forward facing amber bulbs and rearward-facing red bulbs.

Option ID:004882 QTY:1

Camera System, Back-Up, Chassis Supplied, OEM Installed

CHASSIS SUPPLIED BACK UP CAMERA SYSTEM

A backup camera system shall be installed in the cab with the chassis. The camera shall be installed on the rear center upper portion of the apparatus.

Option ID:100040 QTY:1

Intercom System, Sigtronics US45S, 4 Cab Position, Wired Driver/Officer (SE-8), 2 Wired Crew (SE-2)

SIGTRONICS INTERCOM SYSTEM

A Sigtronics model US-45S intercom system shall be provided on the apparatus. The system shall be a voice activated system and have the capability of interfacing with a mobile radio. The mobile radio-transmit shall be accomplished by way of the headset microphone and a push-to-talk switch. The model US-45S intercom shall accept up to four headsets, two positions can have radio transmit capability. The intercom control head shall be located in the optimal position by the apparatus manufacturer unless a specific location is clarified in the shop note. The system shall carry a two (2) year parts and labor warranty from the intercom manufacturer.

CAB POSITIONS

The Sigtronics intercom system shall accommodate one (1) wired driver position, one (1) wired officer position, and two (2) wired crew positions in the chassis cab.

Four (4) Sigtronics, model 800120, headset plug-in module shall be installed, one (1) for each wired position. Each module shall be designed for interior mounting and shall accommodate a Sigtronics single plug headset. The exact location shall be determined by the apparatus manufacturer unless a specific location is clarified in the shop note.

Two (2) Sigtronics, model SE-8, under the helmet, radio transmit headset shall be provided, one (1) each for the driver and officer. Each headset shall include, volume control, a noise-canceling microphone, adjustable head strap, flex boom microphone that rotates 180 degrees, and high impact ABS plastic earcups. One (1) Sigtronics, model 800122, push-to-talk switch shall be provided in each position. The switch shall allow for mobile radio transmission through the Sigtronics intercom system with the use of a Sigtronics headset.

Two (2) Sigtronics, model SE-2, under the helmet, intercom only headsets shall be provided, one (1) for each of the crew positions. The headsets shall include, volume control, a noise-canceling microphone, adjustable head strap, flex boom microphone, and high impact ABS plastic ear cups.

Each headset shall be complete with a hanger to hold the headset when not in use. The driver's and officer's hangers shall be mounted inboard of each position, and all hangers shall be located in the optimal position based on cab and seat configuration by the apparatus manufacturer unless a specific location is clarified in the shop note.

Option ID:100060 QTY:1

Additional Intercom Position, (1) Pump Panel, Sigtronics US67S, Headset Extension Cable

PUMP PANEL POSITION

The Sigtronics intercom system shall accommodate one (1) position at the pump operator's panel. One (1) headset plug-in module shall be located at the pump operator's panel and one (1) headset extension cable shall be provided.

Option ID:100061 QTY:1

Additional Intercom Position, (1) Rear Body, Driver's Side, Sigtronics US67S, Headset Extension Cable

REAR OF APPARATUS POSITION

The Sigtronics intercom system shall accommodate one (1) position at the driver's side rear body area of the apparatus. One (1) headset plug-in module shall be located at the rear of the body and one (1) headset extension cable shall be provided.

Option ID:UPOxxxxxxx QTY:1

Radio Interface Cable, Sigtronics, Y Adapter (2)

RADIO INTERFACE

Two (2) Sigtronics mobile radio interface Y adapter shall be supplied. The Y adapter shall allow the mobile radio systems hand microphone to be plugged into the Sigtronics intercom system.

The radio interface cable drop shall be routed to the general area of the termination of the radio antenna(s) or center dash if no antenna are required.

Option ID:911317 QTY:1

Upper Zone A, Chassis Supplied and Installed

UPPER ZONE A

The upper zone A warning lights shall be supplied and installed by the chassis manufacturer.

Option ID:110409 QTY:1

Upper Zone C, Beacons (2), Whelen, L31 LED

UPPER ZONE C

Two (2) Whelen L31 series Super-LED beacons shall be installed in Upper Zone C. The high profile 12v beacons shall incorporate thirty-two (32) Super-LEDs installed in sets of eight (8) on four (4) PC boards. The four (4) PC boards will be installed on a LED ballast. The beacons shall have an optic hard coated polycarbonate lens and a metalized reflector with clear optic collimators. The hard coated lens shall provide extended life/luster protection against UV and chemical stresses. The four (4) conformal coated PC boards shall provide additional protection against environmental elements. The beacons shall include 28 Scan-Lock patterns including four (4) simulated rotating patterns and synchronized features. The beacons shall also contain cruise mode and low power mode. The beacon dome lenses shall be sealed to a black powder coated die- cast aluminum base with an "O" ring gasket assembly. The solid state beacon light shall be vibration resistant.

Option ID:Upper Zone C Light/Lens Color QTY:1

Light/Lens Color - Red LED's with Clear Lenses

Red LED's with Clear Lenses

Option ID:110473 QTY:1

Lower Zone Warning Lights (4 OEM Provided), A (0), B (1), C (2), D (1), Whelen, LED, 600 Series

LOWER ZONE WARNING LIGHT PACKAGE

Four (4) Whelen 600 Series Super-LED lights with chrome-plated flanges shall be installed in the lower zone of the apparatus to be in accordance with NFPA 1901, current edition compliance. The hard coated lens shall provide extended life/luster protection against UV and chemical stresses. The conformal coated PC board and sealed lens/reflector assembly shall provide additional protection against environmental elements. The solid state warning lights shall be vibration resistant.

Option ID:Lower Zone Light/Lens Color **QTY:**1
Light/Lens Color - Red LED's with Clear Lenses

Red LED's with Clear Lenses

Option ID:003120 **QTY:**1
Traffic Advisor, Whelen, 6-Light, 5mm LED Low-Profile, TAL65, TACTL5 Controller

TRAFFIC ADVISOR

One (1) Whelen model TAL65 LED Traffic Advisor shall be installed on the apparatus. The traffic directional light shall contain six (6) medium intensity LED lamps in a black low profile flat style housing.

A Whelen, model TACTL5 Traffic Advisor control head shall be provided with the traffic advisor. The control head shall be housed in a rugged extruded aluminum case and shall offer four (4) programmable sequence flash patterns.

Option ID:910738 **QTY:**1
Traffic Directional Light Location, Rear Body Face, Recess Mounted

The traffic directional light shall be recess mounted in the rear of the body.

Option ID:000890 **QTY:**1
Air Horn Activation, Push Button on Pump Panel, Driver's Side

AIR HORN ACTIVATION

One (1) air horn button shall be provided on the driver's side pump panel. The button shall be red in color and include a label reading "AIR HORN".

Option ID:110631 **QTY:**1
Scene Lights, Pair, 12V, Whelen, Surface Mount, LED 900 Series Gradient Opti-Scene

WHELEN 12V SURFACE-MOUNT SCENE LIGHTS

Two (2) Whelen 900 Series Super-LED, model 9SC0ENZR, lights shall be installed on the apparatus. Each steady burn scene light shall incorporate twenty-four clear Super-LEDs, a clear gradient-optic hard coated polycarbonate lens, and utilize a metal reflector for maximum output. The hard coated lens shall provide extended life/luster protection

against UV and chemical stresses. Each light's conformal coated PC board and sealed lens/reflector assembly shall provide additional protection against environmental elements. Each solid state scene light shall be vibration resistant. Each light is certified to meet KKK 1822F requirements and AMD 024 standards. An installation kit including mounting hardware and rubber gasket shall be provided for surface mounting. The scene lights are covered by a five-year factory warranty.

Option ID:910851 QTY:1

Lighting Location, Rear Face of Body, Both Sides

The two (2) lights shall be installed on the rear face of the body, one (1) on each side.

Option ID:110838 QTY:1

Lighting Activation, On V-Mux Screen and Pump Panel, 'REAR SCENE', Wired to Reverse and Rear Work Light Switch

The rear scene light(s) shall be controlled by a switch located on the V-Mux display in the chassis cab and one (1) switch located at the pump panel. The switch at the pump panel shall have an indicator that shall illuminate when the switch is in the "ON" position. The activation on the V-Mux display and the pump panel switch shall be labeled "REAR SCENE."

In addition to the switch located on the V-Mux, the rear scene light(s) shall be activated by the rear work light switch and when the apparatus is placed in reverse.

Option ID:110589 QTY:1

Scene Lights (2), 12V, FRC, Pedestal Mount, LED Spectra 20,000 Lumen, Switch on Lighthouse, Model SPA570-Q20-ON

FIRE RESEARCH 12V PEDESTAL-MOUNT SCENE LIGHTS

Two (2) Fire Research Spectra LED series, model SPA570-Q20, top mount fixed pedestal lights shall be installed on the apparatus. Each pedestal shall allow the lamphead to rotate 450 degrees and have a self-adjusting friction brake to prevent arbitrary rotation. Each pedestal shall have a round mounting base. Wiring shall extend from the pedestal bottom.

Each lamphead shall have eighty-four (84) ultra-bright white LEDs, 72 for flood lighting and 12 to provide a spot light beam pattern. They shall each operate at 12/24 volts DC, draw 18/9 amps, and generate 20,000 lumens of light. Each lamphead shall have a unique lens that directs flood lighting onto the work area and focuses the spotlight beam into the distance. Each lamphead angle of elevation shall be adjustable at a pivot in the mounting arm and the position locked with a round knurled locking knob. The lamphead shall be no more than 5 3/8" high by 14" wide by 3 3/4" deep and have a heat resistant handle. The lampheads and mounting arms shall be powder coated. The LED scene lights shall be for fire service use.

A Fire Research Spectra –ON option switch shall be installed on each Spectra LED lamphead. The weatherproof on-off toggle switch shall be mounted in a switchbox below the lamphead. The switchbox shall be powder coated white.

Option ID:910845 QTY:1

Lighting Location, On Top of the Body, Rearward, Both Sides

The two (2) lights shall be located rearward on top of the body, one (1) on each side.

Option ID:110848 QTY:1

Lighting Activation, Pair, In Cab and On Pump Panel, 'LEFT SCENE' and 'RIGHT SCENE', Rocker Switches

The driver's side and officer's side scene light(s) shall each be controlled by a rocker switch located in the chassis cab, for a total of two (2). There shall also be one (1) switch located on the pump panel for each side of scene lights, for a total of two (2). The switch at the pump panel shall have an indicator that shall illuminate when the switch is in the "ON" position.

The activation for the driver's side scene lights in the cab and the pump panel switch shall be labeled "LEFT SCENE" and the officer's side shall be labeled "RIGHT SCENE."

Option ID:110589 QTY:1

Scene Lights (2), 12V, FRC, Pedestal Mount, LED Spectra 20,000 Lumen, Switch on Lighthead, Model SPA570-Q20-ON

FIRE RESEARCH 12V PEDESTAL-MOUNT SCENE LIGHTS

Two (2) Fire Research Spectra LED series, model SPA570-Q20, top mount fixed pedestal lights shall be installed on the apparatus. Each pedestal shall allow the lamphead to rotate 450 degrees and have a self-adjusting friction brake to prevent arbitrary rotation. Each pedestal shall have a round mounting base. Wiring shall extend from the pedestal bottom.

Each lamphead shall have eighty-four (84) ultra-bright white LEDs, 72 for flood lighting and 12 to provide a spot light beam pattern. They shall each operate at 12/24 volts DC, draw 18/9 amps, and generate 20,000 lumens of light. Each lamphead shall have a unique lens that directs flood lighting onto the work area and focuses the spotlight beam into the distance. Each lamphead angle of elevation shall be adjustable at a pivot in the mounting arm and the position locked with a round knurled locking knob. The lamphead shall be no more than 5 3/8" high by 14" wide by 3 3/4" deep and have a heat resistant handle. The lampheads and mounting arms shall be powder coated. The LED scene lights shall be for fire service use.

A Fire Research Spectra –ON option switch shall be installed on each Spectra LED lamphead. The weatherproof on-off toggle switch shall be mounted in a switchbox below the lamphead. The switchbox shall be powder coated white.

Option ID:910848 QTY:1

Lighting Location, On Top of the Pump Module, Rearward, Both Sides

The two (2) lights shall be located rearward on top of the pump module, one (1) on each side.

Option ID:110848 QTY:1

Lighting Activation, Pair, In Cab and On Pump Panel, 'LEFT SCENE' and 'RIGHT SCENE', Rocker Switches

The driver's side and officer's side scene light(s) shall each be controlled by a rocker switch located in the chassis cab, for a total of two (2). There shall also be one (1) switch located on the pump panel for each side of scene lights, for a total of two (2). The switch at the pump panel shall have an indicator that shall illuminate when the switch is in the "ON" position.

The activation for the driver's side scene lights in the cab and the pump panel switch shall be labeled "LEFT SCENE" and the officer's side shall be labeled "RIGHT SCENE."

Option ID:UPOxxxxxxx QTY:1

Inverter, GoWISE PS1004, 3000W

POWER INVERTER

There shall be a Go WISE PS1004 3000W power inverter Sine inverter shall be provided and installed on the apparatus. The PS1004 features 5 kinds of protection systems: Thermal protection, Overload protection, Over Voltage protection, Under Voltage protection, Low Voltage protection alarm. Inverter also comes with an LED light that indicates the problem. The inverter comes with black and red cables with ring terminals, a remote switch, an inverter with 3 AC sockets and 1 USB port 5V, and a detailed instruction manual.

Option ID:UPOxxxxxxx QTY:1

Transfer Switch, Inverter-to-Shoreline

TRANSFER SWITCH

A transfer switch shall be installed that will automatically switch from the 120-volt shoreline power to inverter when required. The transfer switch shall be in close proximity to the load center.

Option ID:UPOxxxxxxx QTY:1

Inverter Location, Above Pump Module

he Honda generator shall be located inside the L1 compartment.

Option ID:UPOxxxxxxx QTY:1

Receptacle, 120V, 5-15R Household, Duplex, Wired to Inverter

120V RECEPTACLE

One (1) NEMA 5-15R, 120-volt, duplex, 3-wire, straight blade (household type), receptacle shall be installed on the apparatus. The receptacle shall have a 15-amp rating

and shall include a spring loaded weather resistant cover if mounted in an exterior location. The receptacle shall be wired to the onboard inverter.

Option ID:910914 QTY:1

Receptacle Location, In L3 Cmpt

The receptacle shall be located in the L3 compartment.

The exact location will be determined by the apparatus manufacturer, unless a specific location is clarified in the shop note.

Option ID:UPOxxxxxxx QTY:1

Receptacle, 120V, 5-15R Household, Duplex, Wired to Inverter

120V RECEPTACLE

One (1) NEMA 5-15R, 120-volt, duplex, 3-wire, straight blade (household type), receptacle shall be installed on the apparatus. The receptacle shall have a 15-amp rating and shall include a spring loaded weather resistant cover if mounted in an exterior location. The receptacle shall be wired to the onboard inverter.

Option ID:910914 QTY:1

Receptacle Location, In L3 Cmpt

The receptacle shall be located in the L3 compartment.

The exact location will be determined by the apparatus manufacturer, unless a specific location is clarified in the shop note.

Option ID:110888 QTY:1

Cord Reel,Hannay, 120V, 200' 10/3 Yellow Cord, Terminate L5-30 Receptacle, Junction Box with Pigtail, Circle D

ELECTRIC CORD REEL

A Hannay 120 volt electric rewind cord reel shall be installed on the apparatus. A push button labeled "REEL REWIND" shall be installed for 12-volt rewinding of the cord reel.

Rollers shall be supplied to prevent damage to the electrical cable if pulled in any direction.

The cord reel shall be equipped with 200' of yellow STW Seoprene 10/3 wire installed with a cable stop to prevent damage to cable fittings. The cord shall terminate in a single L5-30 twist lock receptacle.

JUNCTION BOX

A Circle D, model PF51, electrical junction box equipped with four (4) electrical receptacles shall be provided. The cord reel shall be connected to the junction box through a 12" pigtail with heavy duty water resistant strain relief and flexible extender. The pigtail shall utilize an L5-30 twist lock plug and connector to supply power to the receptacles. The receptacles shall be enclosed in a UL listed NEMA Type 3R cast aluminum box with aluminum finish and NFPA required indicator light.

Option ID:901149 QTY:1

Junction Box Option, Powder Coat Silver Hammertone

The junction box shall have a silver hammertone powder-coat finish.

Option ID:910860 QTY:1

Junction Box Receptacle, 120V, 5-15R Household, Duplex

One (1) NEMA 5-15R, 120 volt, duplex, 3-wire, straight blade (household type) receptacle shall be installed on the junction box.

Option ID:910860 QTY:1

Junction Box Receptacle, 120V, 5-15R Household, Duplex

One (1) NEMA 5-15R, 120 volt, duplex, 3-wire, straight blade (household type) receptacle shall be installed on the junction box.

Option ID:910860 QTY:1

Junction Box Receptacle, 120V, 5-15R Household, Duplex

One (1) NEMA 5-15R, 120 volt, duplex, 3-wire, straight blade (household type) receptacle shall be installed on the junction box.

Option ID:910860 QTY:1

Junction Box Receptacle, 120V, 5-15R Household, Duplex

One (1) NEMA 5-15R, 120 volt, duplex, 3-wire, straight blade (household type) receptacle shall be installed on the junction box.

Option ID:110908 QTY:1

Cord Reel Location, In Pump Module, Terminate Thru Roller Assembly on Side Pump Module, Officer's Side

The cord reel shall be located inside the pump compartment on the officer's side and shall terminate out the side of the pump module side wall. A roller assembly shall be mounted on the side wall to prevent damage to the cord.

Option ID:001481 QTY:1**Construction and Dimensions, Rear Mount Ladder Structure (105')****105' AERIAL LADDER CONSTRUCTION STANDARDS**

The aerial ladder shall be of the rear mount design with the turntable mounted over the rear axles of the apparatus, and the ladder extending toward the front of the apparatus when in the bedded position. The aerial ladder shall be comprised of four sections and shall extend to a nominal height of 105' at 72 degrees, measured in a vertical plane from the top rung of the fly section (not including the egress) to the ground. To maintain a maximum level of safety, units exceeding a 76 degree angle of inclination, in accordance with NFPA 1931/1932, current edition, shall not be acceptable.

OPERATIONAL ENVELOPE/REACH

The aerial ladder shall have an operations range of -8 degrees elevation to +72 degrees elevation.

The minimum vertical reach of the aerial shall be 105' above the ground with the aerial at full extension and elevation. This measurement shall be taken to the end of the permanent structure and not include the removable egress. Requiring a removable egress to achieve 105' of vertical reach shall not be acceptable.

A minimum horizontal reach of 101'-5" shall be measured from the turntable centerline to the outermost rung on the outermost fly section, with the aerial at full extension and at 0 degrees elevation. Units measuring the horizontal reach to the end of a removable egress shall be required to hold the egress to the same load testing criteria as the permanent structure.

Reach and height shall be measured in accordance with NFPA 1901, current edition.

STRUCTURAL MATERIAL

The primary load support members of the ladder shall be constructed of certified 100,000 PSI yield strength (minimum) steel tubing, with full traceability on all structural materials. Each section shall be trussed diagonally, vertically, and horizontally using welded steel tubing. All critical points shall be reinforced for extra rigidity and to provide a high strength to weight ratio.

All ladder rungs shall be constructed of A606 Type 4 certified steel tested per ASTM A370 standards. A606 Type 4 exhibits superior corrosion resistance over regular carbon steel as a result of the development of a protective oxide film on the surface. A606 Type 4 shall meet a minimum 6.0 Atmospheric Corrosion Factor. The ladder rungs shall be round and welded to each section utilizing "K" bracing for torsional rigidity.

All welding of structural components, including the aerial ladder sections, turntable, pedestal, and outriggers, will be in compliance with the American Welding Society standards. All welding personnel will be certified, as qualified under AWS welding codes. Materials used to manufacture the structural components are to be certified by the mill that manufactured the materials. Certifications or re-certifications of structural materials by vendors other than the mill they were manufactured at will not be acceptable. Any material testing that is performed after the mill test will be for verification only and not completed with the intent of changing the classification. Any welded structural component for the ladder will be traceable to their mill lots.

PRIMARY DIMENSIONS

The inside dimensions of the ladder shall be as follows:

- Base Section - 40.250"
- First Fly Section - 33.500"
- Second Fly Section - 27.750"
- Last Fly Section - 22.500"

The height of the handrails above the center line of the rungs shall be as follows:

- Base Section - 28.875"
- First Fly Section - 24.875"
- Second Fly Section - 21.375"
- Last Fly Section - 17.375"

Option ID:911154 QTY:1
Ladder Specifications (105')

NFPA SAFETY FACTOR AND RATED CAPACITIES

The methodology, definitions, testing, and criteria used by the aerial manufacturer to determine the preceding and following Safety Factor and Rated Capacity of the aerial device shall be in strict compliance with the definitions of such, in accordance with NFPA 1901, current edition, and these specifications. Any apparatus claiming to exceed the testing requirements of NFPA 1901 shall provide certified documentation of the tests.

AERIAL DEVICE SAFETY FACTOR AND RATED CAPACITY

The purchaser desires to purchase with these specifications, an aerial device with a minimum 2.0:1 safety factor as required and in accordance with NFPA 1901, current edition. Therefore, the aerial manufacturer shall hereby certify, by submitting a bid for these specifications; that the aerial device meets or exceeds the following requirements.

The design stress or primary stress within all structural load supporting members of the aerial device shall not exceed 50% of the minimum as welded yield strength of the material based on the combination of the dead load of the aerial plus the rated capacity of 750 lbs. at the tip of the aerial; while flowing 1500 GPM, at a 90 degree angle to ladder centerline; with the structural load supporting members of the aerial device at either; an ambient temperature of 75 degrees F or an elevated temperature of 350 degrees F- thereby exhibiting a minimum 2.0:1 safety factor in all feasible operational conditions.

These capabilities shall be valid and true when the apparatus is deployed in the unsupported configuration, while flowing 1500 GPM, based upon 360-degree rotation, from full retraction to full extension, and at any degree of elevation (-8 to +72). In order to provide a clear picture of apparatus capabilities, any manufacturer with any restrictions to any of these capabilities shall provide the lowest ratings of tip load and water flow.

AERIAL DEVICE SAFETY FACTOR SERVICE LIFE

The purchaser desires to purchase an aerial device with a safety factor that remains NFPA compliant and constant throughout the life of the aerial device. The safety factor of every structural load bearing member in the aerial device shall remain above 2.0:1 for a "Safety Factor Service Life" of up to 20 years minimum. Any apparatus claiming to exceed the guidelines of NFPA 1901 shall provide certified documentation.

Option ID:001837 QTY:1
Aerial Information Specification Plate

AERIAL SPECIAL LABELS

Legible, permanent signs shall be installed in positions readily visible to the operator to provide operational directions, warnings, and cautions. The signs shall describe the function of each control and provide operating instructions.

Warning and caution signs shall indicate hazards inherent in the operation of the aerial device. These hazards shall include, but shall not be limited to:

- Electrical hazards involved where the aerial device does not provide protection to the personnel from contact with, or near proximity to, an electrically charged conductor.
- Electrical hazards involved where the aerial device does not provide protection to ground personnel who might contact the vehicle when in contact with energized electrically charged conductors.
- Hazards from stabilizer motion.
- Hazards that can result from failure to follow the manufacturer's operating instructions.

AERIAL DEVICE SPECIFICATION PLACARD

A permanent label shall disclose the following information relative to the aerial device:

- Make
- Model
- Insulated or non-insulated
- Serial number
- Date of manufacture
- Rated capacity (s)
- Rated vertical height
- Rated horizontal reach
- Maximum hydraulic system pressure
- Hydraulic oil type and capacity
- All other appropriate labels to ensure safe operation of the aerial device shall be permanently secured in conspicuous locations.

Option ID:121500 QTY:1

Aerial Test, Non-Destructive Testing (NDT), Independent Third Party Certification

THIRD PARTY NON-DESTRUCTIVE TESTING

Welds shall be tested using two (2) non-destructive methods by an independent third party. Devices that have not been certified by an engineer that is independent of the manufacturer shall not be acceptable. Welds shall be tested using two-(2) non-destructive methods by an independent third party inspection firm. Steel and aluminum ladders shall, at a minimum, have all welds tested using two-(2) separate NDT methods.

Aerial structures shall have 100 % of all structural welds tested using both magnetic particle method and visual testing method. Aerials that are fabricated of aluminum shall have 100% of all structural welds tested using dye penetrate method and visual method. Manufacturers who rely only on visual inspection, performed in-house or by a third party, as a primary method of testing shall not be considered, and their bid shall be rejected.

Option ID:901000 QTY:1

Aerial Test, Structural Safety Factor, Stability Factor and Testing

STRUCTURAL SAFETY FACTOR

The purchaser desires a device that has been tested by a third party for compliance with the 2 to 1 safety factor specified by NFPA 1901. Devices that have not been certified by an engineer that is independent of the manufacturer shall not be acceptable.

NFPA AERIAL STABILITY FACTOR AND TESTING

A one and one-half to one (1.5:1) stability factor shall be provided. These capabilities shall be established in an unsupported configuration. Since the device is rated while flowing water, stability testing shall account for the distributed weight of water in a full waterway and water reactionary force as required by NFPA 1901.

The following are specific descriptions of what tests are to be performed, and conditions they shall be performed under, and strictly adhered to by the aerial manufacture set forth in these specifications and the current edition of NFPA 1901.

For both of the following tests, the only obstructions to a full 360-degree rotation with the aerial at 0 degrees elevation and full extension; shall be presented by the apparatus itself, and not external obstructions at the manufacturer's test location. This means that the aerial device manufacturer shall ensure that the testing grounds present no obstruction (trees, buildings, etc.) to the full 360-degree rotation at 0 degrees elevation and full extension, which may cause the need to raise the aerial to clear the obstruction.

Additionally, the apparatus shall be tested for stability only after the entire apparatus is complete. Manufacturers using a third-party to manufacture the aerial device must provide certified documentation the unit was tested by the manufacturer of the aerial and the final OEM manufacturer. This requirement is specified in NFPA 1901 as the apparatus being in "service-ready condition". There shall be no exception to this requirement due to the fact that it would be unlikely that actual weight distribution could be accurately simulated for the stability testing.

TEST 1

After the above conditions have been satisfied, the aerial shall be subjected to the following test in the presence of the third party testing company that is in compliance with these specifications. Specifically, the aerial device shall be placed on level ground with the stabilizers deployed per manufacturer recommendations. The aerial device then shall have 1.5 times the rated capacity placed at the tip of the aerial, with the device at full extension and at 0 degrees elevation, which is the most stringent configuration. The device shall be rotated 360 degrees raising and lowering the aerial as needed to clear the cab of the apparatus. The aerial shall prove to be stable during the entire test and no component of the aerial shall permanently deform.

TEST 2

After the above conditions have been satisfied, the aerial shall be subjected to the following test in the presence of the third party testing company that complies with these specifications. Specifically, the aerial device shall be placed on a 5-degree downward slope with the stabilizers deployed per manufacturer recommendations. The aerial device then shall have 1.33 times the rated capacity placed at the tip of the aerial, with the device at full extension and at 0 degrees elevation, which is the most stringent configuration. The device shall be rotated 360 degrees raising and lowering the aerial as

needed to clear the cab of the apparatus. The aerial shall prove to be stable during the entire test and no component of the aerial permanently deform.

Option ID:911156 QTY:1

Rung Covers

RUNG COVERS

Each rung shall be covered with secure, heavy duty, deeply serrated rubber sheathing. The rung cover shall be installed on a minimum of sixty percent (60%) of each ladder rung. Attachment of the sheathing to the rung shall be by mechanical means and an adhesive application. Under no circumstance shall the rung covers turn when a rung is at ambient temperature (75 degrees F) or at an elevated temperature (350 degrees F); there shall be no exception to this requirement for the safety of persons climbing the ladder sections.

The sheathing shall be easily replaceable if the rubber becomes worn, however, the rung covers shall be designed, constructed, and installed with lifetime service as the objective. To ensure ease of maintenance if damaged, manufacturers using embossed metal in place of the rubber rung covers are not acceptable.

To prevent corrosion of the rungs by introducing air to the inside, under no circumstances will rung covers attached with screws or rivets be acceptable.

Option ID:001509 QTY:1

Ladder Travel Support/Cradle, Light, Cradle Interlock System (UT 100'/105'/107)

HEAVY DUTY LADDER TRAVEL SUPPORT

A heavy duty ladder rest with poly pads shall be provided for support of the ladder in the travel position. The location of the travel support shall be directly behind the chassis cab. The travel support shall be fabricated from heavy duty steel and painted to match the primary body color. If the body is a two-tone design, the travel support shall be painted to match the top body color. The travel support shall be designed to be easily removable to allow for ease of maintenance and repair if necessary.

The base section of the ladder shall contain stainless steel scuff plates where the ladder comes into contact with the ladder support.

An indicator light shall be provided on the turntable to indicate when the ladder is aligned with the travel support and may be lowered into it. The ladder rest shall be attached to the front outrigger box assembly for added stability.

The ladder rest shall be illuminated for night time operation. The illumination light shall automatically activate with the aerial master switch.

CRADLE INTERLOCK SYSTEM

A cradle interlock system shall be provided to prevent the lifting of the ladder from the nested position until the operator has positioned all of the stabilizers in a load supporting configuration. An interlock switch shall be installed at the cradle to prevent operation of the stabilizers once the aerial has been elevated from the nested position.

Option ID:001514 QTY:1
Elevation System (UT 100'/105')

ELEVATION SYSTEM

Two (2) double acting lift cylinders shall be utilized to provide smooth precise elevation from 8 degrees below horizontal to 72 degrees above horizontal. The lift cylinders shall have a 6" internal diameter (bore) and a 2.5" solid cylinder rod. The lift cylinders shall be equipped with integral holding valves located on the cylinder to prevent the unit from lowering should the charged lines be severed at any point within the hydraulic system.

The lowering of the ladder shall be controlled by a pressure limiting valve to limit the downward pull of the ladder when it is bedded. Both raising and lowering functions shall be influenced by flow compensation, which shall maintain ladder tip speed within the design speed regardless of load, angle, or extension. Ladder tip speed shall be decelerated above 65 degrees in order to reduce "tip-lash". Ladder lowering shall be controlled on the down motion to prevent the cylinders from completely retracting, thus allowing a cushion of oil for continuous ladder load readout.

The elevation cylinder upper and lower pivot pins shall be installed with a secondary tensioning system to secure the pins and prevent them from slipping out over time. The design shall not inhibit the pins from being removed for future servicing purposes.

Option ID:911166 QTY:1
Extension/Retraction System, Maintenance Free Sheaves (UT 100'/105'/107')

EXTENSION/RETRACTION SYSTEM

A fully hydraulic powered extension and retraction system shall be provided using two (2) sets of Siamese hydraulic cylinders and cables. Each set shall be capable of operating the ladder in the event of a failure of the other. The extension cylinders shall each have a 3.5" internal diameter (bore) and a 1.5" diameter solid rod. Extension and retraction of the telescopic sections shall be internally limited within the cylinders, eliminating excess strain on the cables, sheaves, and ladder structure. Each of the cylinder, cable, and sheave assemblies shall be completely independent of the other, to provide a safety factor wherein a failure of one assembly will not affect the function and operation of the other. The extension cylinders shall be equipped with counter balance holding valves to synchronize the cylinders for smoother operation and prevent the unit from retracting should the charged lines be severed at any point within the hydraulic system. The holding valves shall be mounted directly on the cylinders with no hoses between the valve and the cylinder.

The reeling of the cable shall be such to provide synchronized, simultaneous movement of all sections from full extension to full retraction. All pulleys and sheaves shall be enclosed as an added safety feature as well as to prevent personnel on the ladder from becoming entangled in them.

MAINTENANCE FREE SHEAVE BEARINGS

The aerial sheave bearings shall be made with continuous wound PTFE and high-strength fibers encapsulated in a lubricated, high-temperature epoxy resin. This material shall be corrosion-resistant, have a high load capacity, and be self-lubricating.

It shall also be resistant to shocks, misalignment, and wear. The bearings shall not require lubrication. Aerial cable systems that require extensive maintenance, and constant lubrication, are not acceptable.

AERIAL CABLES

To ensure a maximum level of safety the following standards shall be used on the extension and retraction cable system with no exception:

- Cables shall have a 5:1 safety factor based on ultimate strength under all safe operating conditions.
- The factor of safety shall remain above 2:1 during any extension or retraction system stall
- The minimum ratio of the diameter of cable to the diameter of sheave shall be 1:12

All cables shall be pre-stressed, proof-loaded, and certified by the cable manufacturer to minimize changes to the cable lengths and performance.

CERTIFIED CABLE SWAGED SHACKLES

All swaged shackle ends shall have a certification test from the manufacturer of the assembly.

IGUS ENERGY CHAIN

The electrical cable, hydraulic hose and/or air hose shall be routed through the interior of the structural tubing of the ladder sections as well as utilizing Igus energy chain. The energy chain shall be routed through the inside section of the vertical side walls of the aerial ladder device. The cable and/or hose routing shall use one or both bottom cord rectangular tube(s) on the base section of the ladder and the bottom cord rectangular tube(s) on the last ladder fly section. The ladder sections between the base and last fly shall utilize the energy chain in order to route all electrical cables and hose lines.

Each model of energy chain used shall be adequately sized to fit the application.

Rollers, which are located in the lower portion of the ladder section(s), shall be constructed of a nylon plastic material that is specifically designed for these types of applications. Spacer pads, made from the same material as the rollers, shall be installed and evenly spaced in order to secure the Igus energy chain within the specifically designed carrier shield(s).

The electrical cables used to transfer power to the ladder tip shall be Igus Chain Flex cables. These cables are specially designed for the Igus energy chain system and custom fit for each aerial apparatus.

Igus Energy chain is virtually wear-free and offers extremely quiet operation. Igus energy chain is very well suited to resist the harsh environmental conditions by being able to withstand extreme temperatures and is UV resistant.

Option ID:911168 QTY:1

Wear Pads/Bearing Surfaces

WEAR PADS/BEARING SURFACES

Nylon wear pads impregnated with molybdenum disulfide and high in molecular weight shall be used between the telescoping sections for maximum weight distribution, strength, and smoothness of operation. This impregnation shall provide a lubricating function.

Stainless steel adjustment screws shall be provided on the wear pads to permit proper side tension. Plates shall be installed on the sides of the slide pads where adjustment screws come into contact with them. No exceptions shall be allowed to this requirement to prohibit the adjustment screws from embedding themselves into the pads, which may cause the pad to crack and fail.

To prevent additional maintenance and pressure points from the limited surface area, roller systems in place of wear pads will not be considered acceptable.

Option ID:911172 QTY:1

Rotation System, Bearing/Gear Box/Interlocks (UT 100'/105')

ROTATION BEARING

A 44-inch diameter external tooth, swing circle bearing shall be used for the rotation system. The bearing shall provide 360-degree continuous rotation. The bearing shall be designed specifically for the aerial device in lieu of the aerial device being designed to accommodate a particular bearing.

The bearing shall be bolted to the turntable and to the base support structure with SAE grade 8 bolts. Welding on the bearing in any manner shall not be acceptable.

The turntable base and the torque box bearing plate surfaces that contact the bearing shall be machined to prevent loading the bearing when the attaching bolts are brought to full torque. Machining of the surfaces shall be done after all welding to assure no further distortion of the material.

Shims shall not be acceptable as they reduce the surface contact area significantly thereby causing a concentration of forces at the shims.

BOLT TORQUING FROM TOP SIDE

All rotation bearing bolts shall be torqued from the top side of the turntable without the bolt or nut being held under the turntable by a person. Units requiring removal of equipment to access the torque bolts shall be considered unacceptable.

This design shall prevent the bolt from "spinning" while torque is being applied to the fastener. Application of Loctite or a similar compound alone, without any other means provided to hold the fastener shall not be acceptable. Additionally, this design feature shall not incorporate drilling, bending, welding on, or in any way modifying the structural fastener, nut, or washers.

ROTATION GEAR REDUCTION BOX

A hydraulically driven planetary gearbox with a drive speed reducer shall be used to provide infinite and minute rotation control throughout the entire rotational travel. The rotation gear reduction box shall be installed on the top side of the turntable so that it is

easily accessible, yet it shall be installed so that it does not provide an obstruction or tripping hazard to persons on the turntable. Specifically, it shall be installed toward the front of the turntable, under the aerial ladder base section. Under no circumstance shall the gear box present any interference with the aerial device, even at low elevations.

Due to the additional maintenance required to keep two (2) rotation motors functioning properly without binding, units requiring more than one (1) rotation motor are not considered acceptable.

A spring applied, hydraulically released disc type swing brake shall be furnished to provide positive braking of the turntable assembly.

Provisions shall be made for manual operation of the rotation system should complete loss of hydraulic power occur. These provisions shall include a manual rotation drive tool supplied with the apparatus.

The hydraulic system shall be equipped with pressure relief valves, which shall limit the rotational torque to a nondestructive power. All moving parts of the rotation gear reduction box shall be enclosed or under the turntable decking eliminating safety hazards.

ROTATION INTERLOCK SYSTEM

The aerial device shall be equipped with a rotation interlock system to prevent the ladder from being rotated to any side where the stabilizers are not sufficiently extended to provide for the full tip load rating.

The system shall monitor the stabilizers for extension. When a stabilizer is not sufficiently extended (short-jacked) to provide full tip load rating, the system shall prevent the aerial from being rotated more than 12 degrees past the front or rear center line into the short-jacked side of the apparatus.

A slowdown feature shall be built into the rotation interlock system. When the aerial is operating in a short-jacked mode, the rotational speed shall be automatically reduced, by approximately 50%, when the aerial is rotated to within approximately 10 degrees of the front or rear center line of the apparatus. The rotational speed shall remain reduced throughout an arc of approximately 20-degrees over the front or rear of the apparatus, regardless of the direction of the rotation movement.

The rotation function shall automatically stop when the aerial approaches the front or rear corner area of the short-jacked side of the apparatus.

The rotation interlock system shall allow for normal operation on the side of the apparatus where the stabilizers are sufficiently extended for full tip load rating.

An override system, activated by pull knobs within the main turntable control pedestal, shall be provided that allows the operator to rotate the aerial into the non-recommended (short-jacked) side of the apparatus, should the situation absolutely demand it.

To ensure the maximum amount of safety, units allowing aerial rotation to the short-jacked side of the apparatus or systems which only include a visual and audio warning without automatically stopping rotation shall not be acceptable.

AERIAL STOW OPERATION INTERLOCK SYSTEM

A safety feature shall be included in the aerial operational system that limits the possibility of damage to the apparatus when stowing the aerial.

When a rear mounted aerial is positioned over the cab area of the apparatus, the interlock system shall not allow the downward movement of the aerial below a preset angle of elevation, unless the aerial is rotated into the bed-zone envelope. The bed-zone shall be approximately 2 degrees of rotation to the left and right side of the center of the aerial bed support. Once this bed-zone envelope is attained, downward movement of the aerial shall be allowed for proper positioning into the bed support.

An indicator light shall be located at the turntable control station to inform the aerial operator when the bed-zone envelope is attained.

Option ID:911175 QTY:1

Cab / Body Damage Protection Interlock System

COLLISION PROTECTION INTERLOCK

The apparatus shall be equipped with a cab collision protection interlock. This interlock shall be enabled while rotating the aerial device at elevations as low as, or lower than the cab of the apparatus.

Should the operator accidentally rotate the aerial device toward the cab at an elevation low enough to cause a collision with the cab, the interlock shall automatically stop rotation of the aerial at a point that is within a few degrees of the cab.

A manual override shall be provided to override the interlock system.

APPARATUS BODY DAMAGE CONTROL INTERLOCK SYSTEM

A safety feature shall be included in the aerial operational system that minimizes the possibility of damage to the apparatus body at all angles for all standard (non-override) operational modes.

The system shall automatically stop the downward movement of the aerial at a preset angle of elevation unless the aerial has been rotated at least 80-degrees, left or right, from the center of the ladder support. Once this rotation point is reached, full range downward movement (to -8 degrees) shall be allowed.

The aerial manufacturer shall determine and set the angle of elevation where downward aerial movement is stopped. The highest point of an apparatus, in relation to the distance from the turntable, shall be used to determine the pre-set elevation angle stopping point.

The system shall also minimize the possibility of accidental damage to the apparatus body from aerial rotation whenever the aerial elevation is below the preset elevation angle stopping point.

Rotational speed shall be reduced by approximately 50% when the aerial is rotated within a minimum of 10 degrees of a body avoidance stopping point. Aerial rotation shall

automatically stop before the aerial contacts the body of the apparatus.

The body damage interlock system shall have no effect on aerial operation when the aerial is raised above the preset downward movement stopping point.

The body damage interlock system shall not eliminate the possibility of damage to components such as telescopic lights that are in a raised position.

A manual override shall be provided that will override the interlock system.

Option ID:001632 QTY:1

Aerial Power Take-Off

POWER TAKE-OFF

The apparatus shall be equipped with a power take-off (PTO) driven by the chassis transmission and actuated by an electric shift, located inside the cab. The PTO, which drives the hydraulic pump, shall meet all the requirements for the aerial unit operations.

Option ID:001636 QTY:1

Hydraulic Pump with "Thru-Drive" (75'/100' MMA/UT100'/105'/107')

"THRU-DRIVE" HYDRAULIC PUMP

The hydraulic system shall be supplied by a pressure compensated, load sensing, variable gallonage type pump. The pump shall provide adequate fluid volume to allow all ladder functions to operate simultaneously, without noticeable loss of speed. The pump shall supply oil only when the ladder is in motion, thereby preventing overheating of the hydraulic oil.

The pump shall be a "thru-drive" design. This design shall be provided for applications that require a power source for additional hydraulically operated accessories or tools.

An interlock shall be provided that allows operation of the aerial device PTO shift only after the chassis spring brake has been applied and the chassis transmission has either been placed in the neutral position or the drive position if the driveline has been disengaged from the rear axle.

Option ID:001640 QTY:1

Hydraulic System (UT 100'/105')

HYDRAULIC SYSTEM

The tubing and hoses used in the hydraulic system shall have a high-pressure rating, with the tubing having a minimum burst pressure of 9,600 to 17,400 PSI and the hoses being a minimum of 8,000 to 13,000.

The hydraulic oil tank shall have an approximate capacity of 50 gallons. A dipstick shall be provided to check the oil level. The oil fill shall be furnished with a cap that shall act as a ventilator to provide clean fresh air into the oil tank and a 40-micron filter to provide positive protection from contaminants. A magnetic drain plug shall be provided in a low

point of the oil tank. An easily accessible 3-micron replaceable oil filter shall be installed on the hydraulic oil tank. The hydraulic oil tank shall be furnished with two pick-up tubes, one tube for normal operation and the other for emergency operation. The emergency pick-up tube shall extend further down into the oil tank to provide for reserve oil in case a hydraulic line is broken.

The hydraulic system shall be protected from possible hydraulic pump malfunctions by a relief valve, which shall route the excess oil into the oil tank when the pressure in the hydraulic system exceeds 3,500 PSI. The hydraulic control valves shall also be protected by being plumbed to a pressure relief valve to protect them from high pressure.

The hydraulic system shall be designed in such a way that all non-sealing moving components whose failure could result in motion of the aerial device shall have a minimum bursting strength of four times the maximum operating pressure to which the component is subjected. The hydraulic system shall have adequate cooling for continuous operation of not less than 2-1/2 hours.

Option ID:111765 QTY:1

Hydraulic Pressure Gauge, Rear Control Station, Inn. Cntrls, 2-1/2", Brass Case Gauge, psi 0-5000

HYDRAULIC PRESSURE GAUGE

A 2-1/2" Innovative Controls brass case 5,000 PSI, pressure gauge shall be located at the ground level control station to monitor the hydraulic system pressure. The gauge shall be liquid filled to prevent gauge shock when the hydraulic system is energized. The liquid shall not be vulnerable to freezing in subzero temperatures.

Option ID:001649 QTY:1

Emergency Hydraulic Pump (55'/75'/UT100'/100'MMA/105')

EMERGENCY PUMP

The apparatus shall be equipped with one (1) emergency hydraulic pump electrically driven from the chassis battery system. The emergency pump shall be capable of providing adequate ladder functions to stow the aerial and stabilizers in the case of main hydraulic pump failure.

Two (2) control switches for this emergency pump shall be provided. One switch shall be installed at the turntable control console and the stabilizer control station. The switches shall be labeled EPU.

The switch at the stabilizer control station shall be a lighted momentary switch. The switch at the turntable control pedestal shall be a lighted switch on the switch pad.

Option ID:911194 QTY:1

Swivel

HYDRAULIC SWIVEL

The aerial ladder shall be equipped with a swivel at the turntable. The swivel shall connect the hydraulic lines from the hydraulic pump and reservoir to the aerial control bank at the turntable, above the point of rotation.

The swivel shall connect all the electrical circuits through the rotation point. A minimum of thirty-two (32) collector rings shall be provided. All collector rings shall be enclosed and protected with desiccant plugs to protect against condensation and corrosion. Due to the possibility of paint contamination and dirt attraction, units requiring oil or silicone to protect the collector rings shall not be acceptable.

The swivel shall allow for 360 degrees of continuous rotation of the aerial device with no loss of speed or capacity in functions.

Option ID:001805 QTY:1

Aerial Angle Indicator, Base Section

ANGLE INDICATOR

A liquid filled angle indicator shall be mounted on the base section of the aerial ladder. The indicator shall give accurate elevation in degrees from -20 to +80 degrees in relation to level. The liquid shall be of proper viscosity and composition to remain in liquid form even when exposed to below zero temperatures. Reading of the indicator shall be accomplished by observing the position of a suspended ball in relation to the degrees of elevation as marked on the indicator housing. The indicator shall be backlit for visibility in low light conditions.

Option ID:001807 QTY:1

Aerial Extension Tape

EXTENSION INDICATORS

Numerals shall be applied to the inside of the handrail of the base section opposite the turntable control console. The numerals shall be at appropriate intervals indicating total aerial extension in 5-foot increments. A band on the first fly section shall align with these marks at the appropriate extension distance. The extension indicator color shall provide a high contrast with the color of the ladder section to which it is applied. This shall make the length of aerial extension easily readable by the operator by merely glancing at the indicators. Numerals indicating the length of extension shall be placed adjacent to indicating bands.

Option ID:001464 QTY:1

Aerial Tool, Manual Rotation Drive Tool

MANUAL ROTATION DRIVE TOOL

As required by NFPA 1901, one (1) manual rotation drive tool shall be provided as a means to rotate the turntable in the unlikely event of power loss. This drive tool shall be provided as standard equipment.

Option ID:007719 QTY:1

Torque Box, Painted Black, AkzoNobel #41878 (105'/107)

TORQUE BOX

A "torsion box" subframe shall be installed on the chassis frame rails, integral with the stabilizers. The torque box shall be constructed of steel plate. The steel plates shall have a minimum yield strength of 36,000 psi and ultimate tensile strength of 58,000 - 80,000 psi. The torque box subframe assembly shall be capable of withstanding all torsional and horizontal loads when the apparatus is supported by the stabilizers. The torque box shall be bolted in place to the chassis frame rails.

The torque box shall have a section modulus of 516.9 cubic inch and a resistance to bending moment of 18,611,273 inch pounds.

The aerial torque box shall be painted with AkzoNobel High Solids polyurethane paint. The color shall be black.

To prevent unnecessary stress on the chassis, apparatus that use the chassis frame in place of a true torque box shall not be acceptable.

The torque Box will be adequately lit for night time operations.

Option ID:010207 QTY:1

Stabilizers, Front and Rear "H" Style, 16' Spread, Standard Stroke, WITH Stabilizer Pins (105')

FRONT AND REAR STABILIZERS

Two (2) sets of stabilizers shall be installed for stability. Both sets shall be an extending box beam "H" style. Each set of stabilizers shall support full, certified aerial capabilities at a 16' spread, measured from the outermost edge of the stabilizers on each side of the apparatus. For additional stability, the stabilizers on each side of the apparatus shall have the capability of extending one (1) extra foot to a maximum spread of 18'. In order to get the true stabilizer spread, apparatus using measurements other than from each outside edge of the stabilizers shall not be considered acceptable.

The front stabilizers shall be located directly behind the chassis cab rear wall for maximum setup ability with minimal cab deflection. The stabilizers shall be an integral part of the torque box. A heavy-duty undersling assembly shall attach the front stabilizers to the front portion of the torque box. The overlap of the undersling and the torque box shall be a minimum of 24". The bottom side of the tubes shall contain a truss assembly that shall maximize the torsional strength of the undersling assembly.

The front stabilizers and torque box shall be attached to the truck frame in six (6) separate locations, three (3) on each side of the apparatus, utilizing steel plate. The mounting plates shall be located directly under the front stabilizers, under the front torque box area and at the rear stabilizer area.

The rear stabilizers shall be located directly behind the chassis rear wheels. The stabilizers shall be an integral part of the torque box.

The stabilizers shall be of the double box tube design with jack cylinders that have a 5" internal diameter (bore) and a 2.5" diameter solid cylinder rod. The jack cylinders shall be equipped with integral holding valves, which shall hold the cylinders either in the

stowed or the working position, should a charged line be severed at any point within the hydraulic system.

The steel used to build the stabilizer system shall have a minimum yield strength of 36,000 psi and ultimate tensile strength of 58,000 – 80,000 psi.

Vertical jack cylinder rods shall be fully enclosed by a telescoping inner box to protect the cylinder rods, seal glands and pistons against damage from nicks, abrasion, and chrome damage. All vertical stabilizer cylinders shall be removable from the top of the box tube. The inner double box system shall be further designed to stabilize the column load imparted upon the cylinder rod, thereby also protecting against damage which may occur from lateral loading possibly caused by side slopes, shifting or sliding of the apparatus on icy or unstable surfaces, sudden sinking of one or more jack pads, or on scene collision while the aerial device is deployed. Vertical stabilizers that require cylinders to be removed from the bottom, or have the vertical stabilizer cylinders exposed, shall not be acceptable.

The stabilizers shall be connected to the hazard light circuit to warn the driver if they are not stowed when the parking brake is released.

Each extending style stabilizer shall have a polished stainless steel stabilizer cover. The cover shall be adjustable to allow for a proper fit.

MECHANICAL STABILIZER LOCKS

Each extending vertical jack cylinder shall be equipped with a mechanical pin lock to hold it in the working position. The pin shall be zinc plated and have a yellow dipped vinyl handle for increased visibility. The locking system shall be incorporated with the protective tubing used to prevent damage to the jack cylinder rod. The inner and outer jack tubes shall be double-thickness in the pinning area for additional strength.

Safety is of the utmost concern. It is the intent of the fire department to purchase an apparatus that utilizes mechanical stabilizer locks in addition to the hydraulic holding valves integral to the stabilizer jacks. Should a mechanical failure occur with the stabilizer system or hydraulic seepage cause a stabilizer to drift, the mechanical locks shall keep the desired "stabilizer set-up" intact without compromising aerial capabilities or safety. There shall be no exception allowed to this requirement.

STABILIZER STROKE

The stroke of the stabilizers shall be a minimum of 25". The stabilizer pad shall be maintained at a stored height of approximately 12" to 15" (dependent on required ground clearance and angle of departure) resulting in a minimum ground penetration of 10" or greater.

STABILIZER FINISH

The extending front/rear stabilizer beams, inner jack tubes, and stabilizer pads shall be shot blasted to remove any mill scale or contamination. The individual components shall then be hot dip galvanized. The galvanizing process shall require that the entire assembly is completely submerged. Following the galvanizing process, the surface shall be ground smooth to remove dross. This preparation shall provide maximum protection for these critical components. No exceptions shall be allowed to this requirement due to

stabilizers exposure to salt spray and road debris.

The outer tubes shall be finished with a water-based, high quality, single component acrylic primer. The primer color shall be flat black.

Option ID:911178 QTY:1

Stabilizer Extension System (105'/UT100'/107)

STABILIZER EXTENSION SYSTEM

Extension of the front and rear horizontal beams shall be activated by dual extension cylinders, which shall each have a 2" internal diameter (bore) and a 1.25" diameter cylinder rod. The extension cylinders shall be totally enclosed within the extension beams to prevent damage to the rod and hoses. The extension beams shall be 6.00" x 8.00" x .375" wall steel tubing with a .62" steel plate welded to the top and bottom of each beam.

WEAR PADS/BEARING SURFACES

Nylon wear pads impregnated with molybdenum disulfide and high in molecular weight shall be used between the stabilizer housing assembly and the extension tube for maximum smoothness of operation.

Two (2) Nylatron wear pads shall be installed in each stabilizer extension system. There shall be one wear pad located on the top back portion of the extension tube assembly that shall glide on the inner wall of the top housing tube wall. There shall be an additional pad located on the inner wall of the bottom housing tube wall that shall separate the bottom side of the extension tube and the bottom wall of the housing tube. The pads shall be installed in such a manner as to reduce friction for ease of operation and to reduce the amount of metal to metal contact.

Each stabilizer down jack housing tube shall contain four wear pads, one (1) on each side of the tubes.

Option ID:001594 QTY:1

Stabilizer Angle Level Gauges (2)

STABILIZER ANGLE LEVEL GAUGES

One (1) manual angle level gauge shall be located on the rear of the apparatus. The gauge shall have a sight bubble that will measure the side-to-side angle of the apparatus in 2 degree increments.

One (1) manual angle level gauge shall be located on the side of the apparatus, near the rear. The gauge shall have a sight bubble that will measure the fore-to-aft angle of the apparatus in 2 degree increments.

Option ID:001603 QTY:1

Ground Control System, Electric Over Hydraulic Controls, Front and Rear Stabilizers, Lower Center Rear, Horizontal, Brushed Stainless Doors

ELECTRIC / HYDRAULIC STABILIZER CONTROLS

The stabilizer controls shall be located at the rear of the apparatus. Two (2) stations shall be installed, one (1) on each side at the rear, arranged so that the operator has full view of the stabilizer being positioned. All stabilizer control functions shall be of the electric paddle joystick style. The make and model of the joysticks shall be P-Q controls, model M105. The controls shall be designed to allow stabilizers to be operated independently so that the vehicle may be set up in a restricted area or uneven terrain.

An electrically actuated diverter valve shall be provided in conjunction with the stabilizer controls as a safety device. The diverter valve shall allow the hydraulic fluid to flow either to the stabilizer circuit or the turntable and ladder circuit.

A stabilizer deployment warning alarm, activated by stabilizer mode, shall be provided at each stabilizer to warn personnel. The warning alarm shall deactivate only when all stabilizers are in the load supporting configuration, or when the diverter switch is no longer in the stabilizer mode.

The stabilizer controls shall each be accessible through a brushed stainless steel door.

GROUND CONTROL STATION

A control station shall be located at the rear of the apparatus in an easily accessible area. The control panel shall be illuminated for night time operation. The following items shall be furnished at the control console, clearly identified and located for ease of operation and viewing:

- Individual stabilizer down indicator lights
- Aerial PTO engaged indicator light
- High idle switch with indicator light
- Emergency hydraulic pump control with indicator light
- Stabilizer/Aerial diverter control with indicator light
- Side to side leveling bubble

A weather proof compartment shall be furnished behind the control panel and shall contain the aerial circuit breakers, interlock components and control circuit distribution terminals. The control station shall be accessible through a brushed stainless steel door.

The stabilizer controls and ground control station surfaces shall be fabricated from 3mm thick solid core aluminum composite panel with double-sided painted aluminum outer surfaces bonded to a solid polyethylene core. They shall include an Innovative Controls graphic overlay design and supply a second- surface printed UV and scratch-resistant polycarbonate graphic overlay backed with UL 969-compliant outdoor adhesive.

Option ID:001597 QTY:1

Stabilizer 1" Auxiliary Pads (4) with Racks Below Body

AUXILIARY STABILIZER PADS

An auxiliary pad for additional load distribution on soft surfaces shall be supplied for each stabilizer. The pads shall be constructed of ultra-high molecular weight composite material that is a minimum of 1" thick with a minimum surface area of 576 square inches.

The auxiliary pads shall be stored in locations that are readily accessible.

Shop Note: Mount (2) LS/RS behind rear stabilizers

Option ID:007609 QTY:1

Stabilizer Cover Warning Lights (4), Whelen, 600 Series Super-LED (60R02FRR), Red, Activated with Aerial Master

STABILIZER COVER WARNING LIGHTS

One (1) Whelen 600 Series Super-LED flashing light shall be installed on each extending stabilizer cover panel, for a total of four (4). These lights shall be red in color and activated by the aerial master switch.

Option ID:008768 QTY:1

Stabilizer Arm Warning Lights (8), Whelen, 5G Series Super-LED (5GR00FRR), Red

STABILIZER ARM WARNING LIGHTS

Eight (8) Whelen 5G Series Super-LED red flashing lights shall be mounted on the stabilizer beams. Each stabilizer beam shall include two (2) lights, one (1) facing forward and one (1) facing rearward. The lights shall be mounted inboard of vertical jack tubes. The warning lights shall be activated by the aerial master switch.

Option ID:003737 QTY:1

Stabilizer Work Lights (4), Truck-LiteLED (81380), Clear

STABILIZER WORK LIGHTS

Four (4) Truck-Lite LED clear floodlights shall be provided at each stabilizer location to illuminate the surrounding area. The lights shall be located under the stabilizer beams and activated by the aerial master switch.

Option ID:UPOxxxxxxx QTY:1

Turntable, Standard (105') Bottom Walking Surface to be Black Line-X Coated

TURNTABLE

The turntable shall be designed in such a manner as to allow a generous working area, regardless of the position of the aerial, including when positioned at maximum elevation. The turntable shall also be designed to allow for the most efficient use of space on the apparatus body.

The turntable shall be a minimum of 95" side to side and 95" forward to aft.

It shall be covered with Tread-Grip Safe-Deck pattern decking to allow the walking surface to shed liquids with unparalleled ease and comply with NFPA intent, to provide secure footing for the operator in all weather conditions.

The deck shall be black Line-x coated.

A downward lip shall "skirt" the turntable decking around the entire circumference to provide protection from hazards. The skirt shall be black line-x coated.

All hoses and electrical lines shall be routed under removable covers in order to prevent a tripping hazard. The covers shall also be designed to prevent damage from occurring to these components. Likewise, the center of the turntable shall have a removable step cover to prevent tripping hazards as well as provide for an easier transition to the first rung of the aerial ladder.

To prevent unnecessary added weight to the apparatus, the turntable shall not be built entirely from solid materials.

AERIAL PIVOT PINS

The aerial device pivot pins shall be located on the turntable and shall attach the aerial device base section to the turntable. To maintain a suitable safety factor, the pivot pins shall be composed of certified structural steel, thereby ensuring structural integrity.

In the interest of safety, the pivot pins shall be located as low as possible and shall be at the aerial device base rails. This shall keep the pivot points away from the areas where persons regressing to and from the aerial base section, might place their hand(s).

Aerial pivot pins shall be installed with a means to keep the pins in place. The design shall not inhibit the pins from being removed by a qualified mechanic.

Option ID:008307 QTY:1

Turntable Handrails, Ribbed Rubber SS, Standard Turntable, (2) Openings

TURNTABLE HANDRAILS

Three (3) handrails shall be of one piece construction and provide large sweep corners at the edge of the turntable. Each shall be 42" high and shall be constructed of stainless steel and shall have a rubber coating. The handrails shall be installed around the rear 180 degree perimeter of the turntable for operator and personnel safety. Each individual handrail shall be secured to the turntable by the use of two (2) minimum 5/8" anchor bolts on the underside of the turntable. Additionally, chrome plated stanchions with rubber gaskets shall be provided on the top surface of the turntable where each railing meets the decking surface.

There will be two (2) openings in the handrails for access from the turntable access ladders.

Option ID:008344 QTY:1

Turntable Restraints, (2) ManSaver Bars

TURNTABLE RESTRAINTS

Two (2) FRC ManSaver Bars, without covers, shall be installed in the spaces between the handrails. They shall be permanently attached at one end.

Option ID:008037 QTY:1

Turntable Work Lights (4), Whelen LED, 0AC0EDCR

TURNTABLE WORK LIGHTING

The turntable shall be lighted for night time operation with four (4) Whelen model 0AC0EDCR LED angled work lights, which shall be automatically activated by the aerial master switch (day or night). The work lights shall be positioned so the light is directed toward the decking. The lights shall have integral chrome hoods to keep light from glaring upward into the operator's eyes.

An additional Whelen LED light shall be mounted in the front access door of the control stand.

Option ID:001614 QTY:1

Ladder Hour Meter, At Turntable

AERIAL HOUR METER

An hour meter shall be installed at the turntable control station connected to the system engagement control for the aerial. The meter shall register the total hours of aerial use for scheduling periodic maintenance.

Hour meters that are not connected to the aerial system engagement are not considered acceptable in order to capture true aerial operational hours.

Option ID:007390 QTY:1

Turntable Control Console, Painted, AL-11, IC Panel, On-Scene Light Under Lid (55'/75'/105'/125')

TURNTABLE CONTROL CONSOLE

The turntable control console shall be located on the turntable, on the driver's side of the apparatus. The console shall be illuminated by an On-Scene Night Axe LED light with mounting clips for night time operation and have a hinged weather cover. A pressurized gas filled cylinder shall be furnished on the cover to hold it in the open position. The gas filled cylinder shall assist in closing the cover automatically when it is positioned over the center. The console surface shall be angled toward the operator so controls may be viewed and operated ergonomically. Rubber bumpers shall be provided so that when the control console lid is closed, the lid and the control panel will be protected from each other (no metal to metal contact).

Three (3) handles for the ladder hydraulic functions (elevation, rotation, and extension) shall be installed at the control console. The controls shall be manual for safety and durability reasons. The function of each control lever shall be cast into the plate under the appropriate lever. The controls shall be capable of being operated independently or simultaneously with a gloved hand. The speed of movement caused by moving any control shall be minimally affected when multiple controls are activated.

The control console surface shall be fabricated from aluminum and shall include a graphic overlay. The overlay shall be Innovative Controls design and supply a second surface-printed UV and scratch-resistant polycarbonate graphic overlay backed with UL 969-compliant outdoor adhesive.

A hinged door shall be provided on the front of the control console with a pop latch. This door shall allow access to the inner components for inspection purposes. A recessed work light shall be provided in the access door. There shall be a hinged access door provided on the outboard side of the control panel. The door shall be provided with a spring loaded, slotted head latch. The opening shall allow access to the electrical components for service purposes.

The following items shall be furnished at the console, clearly identified and located for ease of operation and viewing:

- Elevation, Extension and Rotation Controls
- Lighted Push/Pull Button to Deactivate Hydraulic and Electrical System
- Panel Light Mounted in Cover
- Ladder Overload Warning Horn
- Monitor Function Controls
- Intercom with Controls
- Operators Load Chart
- Warning Signs

To minimize the chance of failed components, turntable consoles requiring a fan to cool interior components shall not be considered acceptable.

AL-11 AERIAL INFORMATION SYSTEM

Aerial Logic Display

The aerial shall be equipped with a 7" color transmissive TFT LCD display located at the turntable control console. The display shall be viewable in direct sunlight, with a resolution of WVGA, 800 x 480 pixels, 16-bit color and an aspect ratio of 16:9.

The display shall feature LED backlighting, 1000 nit typical brightness (40,000 h lifetime). The display shall include an internal microprocessor Freescale IMX. 375 32bit, 532 MHz utilizing a QNX operating system. The display shall have a minimum 2 GB RAM flash memory and 128 Mbytes SDRAM. The display shall support J1939 and NMEA 2000 protocols.

For protection against extreme environmental conditions, connections shall utilize 2 Ampseal 23 pin connectors AMP770680-1 and AMP770680-4. User inputs shall be accomplished utilizing 14 tactile buttons located directly on the display. The display shall be capable of operating -40° C to +85° C and a minimum IP67 rating front and back. For maximum protection, the display case shall be constructed of Polycarbonate capable of random vibration, 7.86 Grms (5.2000 Hz), 3 axis and a shock of +/- 50G in 3 axis.

The display will gather ladder positional data from an array of sensors. This data will not only be displayed for the device operator, but the rotation and elevation sensors will also be used to protect the body, cab, and installed components from collision damage caused by the aerial device.

Soft Keys

Columns of vertical keys shall be located to the left and/or right of the display. The soft keys correspond to the soft key commands and allow selections with a gloved hand. Icons shall be displayed on the screen adjacent to the soft key and will change according to the options available for the screen being displayed.

Screens

The display shall provide the operator with critical aerial information and switching of aerial electrical components in an easy to read format as follows:

- Extension Retraction Percentage – Digital readout shown 0% - 100%
- Ladder Angle -15 to 90 Degrees (Operational range of Aerial -8 to +72 Degrees)
- Rotation Position – 0 - 360 Degrees
- Ladder Load Percentage - Display live loads acting on the aerial structure shown as 0 - 100%
- Breathing Air – 0-6000 Psi (This is available only if optional breathing air has been specified)
- Bed Zone Alignment Light – When the aerial is aligned and within the bed zone the indicator shall change to a bright color to indicate it is safe to bed the aerial.
- Rung alignment light – When the aerial rungs of each section are aligned the indicator shall change to a bright color to indicate the rungs are aligned to provide safer climbing of the aerial.

Soft keys located on each side of the display shall be programmed to allow the operator to quickly change screens to view the following:

- Positional Waterway – Label shall read “Water Tower” or “Rescue”, depressing this soft key shall allow the user to select what section the waterway will be positioned. When “Water Tower” is displayed the waterway shall be secured to the uppermost fly section of the aerial. When “Rescue” is displayed, the waterway shall be secured to the next lower section. (This is available only if optional positional waterway has been specified)
- Creeper Control Enable – Label shall read “Creep Master”. Pressing this momentary soft key switch allows creeper controls to be used at the tip of the aerial ladder. When the soft key is pressed the indicator shall change to a bright color to indicate the creeper controls at the tip have been activated. (This option available only if optional creeper controls have been specified)
- High Idle – Label shall read “High Idle”. Pressing this soft key shall increase engine RPM to the chassis pre-set high idle, pressing the button again shall return engine RPM to the chassis pre-set idle. The indicator shall change to a bright color to indicate the high idle has been activated.
- Retraction Override - Label shall read “Retract Enable”. Pressing this soft key shall allow the aerial ladder to fully retract when in the overlap zone. Once the operator has verified that it is safe to retract the aerial and presses the soft key, the label shall change to a bright color to indicate the aerial can be fully retracted.
- Emergency Power Unit - Label shall read “EPU”. Pressing this soft key shall activate the electric over hydraulic emergency power unit.

Engine Information Screen – An icon depicting an engine shall be displayed next to the soft key. Pressing this button shall allow the operator to switch to the screen displaying chassis engine information.

Day/Night Display Mode - An icon depicting the sun or the moon shall be displayed next to the soft key, pressing this button shall switch the display to from a bright format for daytime use or a subdued format for nighttime use to maintain greater vision of the operator.

Lighting /Customer Information Screen - An icon depicting a light bulb shall be displayed next to the soft key, pressing this button shall switch the screen from its current screen to the screen to control lighting on the aerial.

The following information shall be displayed on the aerial logic display:

- Customer name
- Production number
- Aerial device type
- Aerial device model number
- Aerial device serial number
- Rated vertical height
- Rated horizontal reach
- Rated capacity
- Contact information for the fire apparatus manufacturer. Information shall include name, address, phone number and website

Chassis Engine Information Screen

- Engine coolant temperature
- Oil pressure
- Transmission temperature
- Fuel level
- Battery voltage
- Engine RPM
- Engine Warnings – To include: Check Engine, Stop Engine, DPF Regeneration Required, Regeneration Status and High Exhaust Temperature

Option ID:111973 QTY:1

System Lock Control, Red Mushroom Switch on Turntable Console

SYSTEM LOCK CONTROL

A push/pull systems engagement control shall be installed at the turntable control console. The control shall energize the hydraulic system for the ladder function and provide the flow of hydraulic fluid to the master valve bank. An automatic throttle switch shall be attached to the systems engagement control that advances the engine speed to a preset RPM when the engagement control is in the "RUN" position. In the "LOCK" position, the engine speed shall return to the normal idle RPM and the hydraulic system be de-energized.

Option ID:008025 QTY:1

Retraction Override Safety System, Switched Through AL-11

RETRACTION OVERRIDE SYSTEM

An integral part of the extension/retraction system shall be a safety system to prevent injury to personnel on the end of the fly section while the ladder is being retracted. This system shall be designed in such a manner to prevent retraction of the aerial device when the folding steps at the end of the fly section are in overlap with the rungs of another section.

When the steps are in an overlap condition, retraction shall only be accomplished by an operator at the primary control station pressing and holding a momentary switch at the turntable control console while the retraction control is operated.

A retraction override switch shall be programmed into the AL-11 system at the turntable console position.

Option ID:007407 QTY:1

Load Sensing System, Programmed into AL-11

LOAD SENSING AL-11 SYSTEM

Indication for the load sensing system shall be programmed into the AL-11 system at the turntable control console.

Option ID:008264 QTY:1

Load Chart (105')

AERIAL LADDER LOAD CHART

A load chart shall be installed at the turntable control console of the aerial ladder. The load chart shall illustrate the full operating range of the ladder, with the waterway dry or flowing water.

Option ID:008026 QTY:1

Communication System, 3-Way, Pump Panel-Turntable-Tip, FRC Always Clear Talking (ACT) (ICA900-213)

AERIAL COMMUNICATION SYSTEM

A Fire Research Always Clear Talking (ACT) Intercom, model ICA900-213, three-way system shall be provided between the aerial tip, the turntable control console, and the pump panel. The intercom kit shall include three control modules, one at the aerial tip that is hands free and one each at the turntable control console and pump panel that have a push-to-talk button, three speakers, and cables. The interconnection between control modules shall require two wires. The control modules shall have an LED volume display and push-button volume control. The hands free module shall constantly transmit to the other modules unless a push-to-talk button is pressed.

The intercom shall be designed for exterior use. The control module shall be no more than 2 7/8" high by 5 1/8" wide by 1 7/8". The speaker shall be no more than 5 1/8" high by 5 1/8" wide by 1 1/2" deep. The power requirements for each control module with a speaker shall not exceed 1/2-amp at 12 VDC.

Option ID:111832 QTY:1

Tracking Lights (2), 12V, On Front of Cradle, FRC LED SoBrite (SRA110-07A)

TRACKING LIGHTS

Two (2) Fire Research SoBrite LED compact ultra bright lights shall be installed low ahead of the cradle, on the base section of the ladder, one (1) on each side. Each lamphead shall have three mounting holes to mount the light directly to a horizontal or vertical surface. Wiring shall extend from the rear of the lampheads.

Each lamphead shall have 22 ultra-bright white LEDs to provide a spot light beam

pattern. They shall each operate at 12/24 volts DC, draw 5/2.5 amps, and generate 7,000 lumens of light. The lampheads shall have a unique lens that focuses the spotlight beam into the distance. Each lamphead shall weight less than 2-1/2 pounds and be powder coated. The LED scene lights shall be for fire service use.

Option ID:111842 QTY:1

Tracking Lights Switch, AL-11

The tracking lights shall be controlled through the AL-11 system.

Option ID:001492 QTY:1

Egress, Bolt-On, Standard (105'/100' MMA)

EGRESS

A removable bolt on egress shall be installed on the tip of the fly section. Only certified structural fasteners shall be utilized to attach the egress to the tip of the fly section. Additionally, the fasteners shall be stainless steel. This design shall allow for easy replacement should the egress become damaged during rescue operations. This shall minimize the risk and cost of downtime, as is common with welded on egresses. For this reason, a design that allows the egress to be welded to the fly section shall not be acceptable.

When the ladder is at 0 degree elevation, the rungs on the egress shall be on a plane of -11 degrees. This shall provide a smoother transition onto the ladder from the tip when it is at a high angle elevation.

The egress shall have handrails that match the fly section handrails for an unnoticeable transition between the two. The egress handrails shall have a radius design at the tip to eliminate corner joints, increase strength, and provide a pleasing appearance.

The rungs on the egress shall be held to the same design load criteria as the rungs of the aerial ladder sections. Specifically, each egress rung shall be able to support a design load of 500 lbs. minimum, distributed across the rung, as specified in NFPA 1901. This shall be in excess of that required by the aforementioned standard. No exceptions shall be allowed to this requirement.

Option ID:007921 QTY:1

Ladder Creeper Controls at Tip, Switched Through AL-11 (105'/125')

AERIAL LADDER CREEPER CONTROLS

A remote ladder creeper control shall be provided at the tip of the fly section. The control shall consist of three (3) spring loaded, triple pole double throw, return to center switches, one for each main ladder function. Each function switch shall be labeled on a black and white label that is located adjacent to the switches. Each switch shall be encircled by a rubber boot to protect the switch box from collecting moisture. The creeper control shall allow the crew member on the tip of the ladder to operate these three functions within the speed limitations as set forth in accordance with NFPA 1901, current edition.

A momentary switch shall be provided in the AL-11 system at the lower turntable control console to activate the creeper control system. When the button is held in the "on" position, power shall be available to the person at the tip and they shall be able to adjust the aerial with the creeper controls. When the button is not depressed, the creeper system will be de-energized.

Option ID:001505 QTY:1

Folding Steps on Fly Section (55'/75'/100' MMA/105'/107'/125')

SECTION FOLDING STEPS

One (1) set of folding steps shall be installed at the tip of the ladder to provide solid footing for personnel while operating the elevated master stream device.

A kick plate shall be provided with each step.

When folded for storage, the steps shall not present significant obstruction to personnel on the apparatus.

Option ID:911157 QTY:1

Load Lifting/Rappelling Eyes on Fly Section

FLY SECTION LOAD LIFTING/RAPPELLING EYES

The aerial ladder shall be equipped with two (2) load lifting/rappelling eyes at the tip of the fly section. The load lifting/rappelling eyes, as a pair, shall be rated not to exceed the tip load of the ladder structure.

Option ID:007797 QTY:1

Axe Mounting Bracket (1), Fly Section, WITH Flat Head Axe (FA6)

FLY SECTION MOUNTED AXE

An axe mounting bracket and retention strap shall be installed on the fly section.

One (1) Fire Hooks Unlimited, model FA6, flathead axe with fiberglass handle shall be provided.

Option ID:111863 QTY:1

Tip Lights (2), 12V, FRC, LED SoBrite (SRA110-07A)

FRC SOBRITE LED TIP LIGHTS

Two (2) Fire Research SoBrite LED compact ultra bright lights shall be installed at the tip of the aerial. Each lamphead shall have three mounting holes to mount the light directly to a horizontal or vertical surface. Wiring shall extend from the rear of the lampheads.

Each lamphead shall have 22 ultra-bright white LEDs to provide a spot light beam pattern. They shall each operate at 12/24 volts DC, draw 5/2.5 amps, and generate 7,000 lumens of light. The lampheads shall have a unique lens that focuses the spotlight

beam into the distance. Each lamphead shall weight less than 2-1/2 pounds and be powder coated. The LED scene lights shall be for fire service use.

Option ID:911218 QTY:1

Tip Lights Locations, Ladder Tip, Both Sides

The lights shall be located at the aerial tip, one (1) on the driver's side and one (1) on the officer's side.

Option ID:111883 QTY:1

Tip Light(s) Switch, AL-11

The tip light(s) shall be controlled through the AL-11 system.

Option ID:911201 QTY:1

Waterway System (UT 100'/105')

WATERWAY SYSTEM

A waterway system shall be provided consisting of the following components and features:

A 4-1/2" outside diameter pipe shall be connected to the water supply on one end and to a water swivel at the rotation point of the turntable. The swivel shall allow the ladder to rotate 360 degrees continuously while flowing water.

A 4" inside diameter pipe waterway shall be routed through the rotation point swivel up to the heel pin swivel. The heel pin swivel shall allow the water to flow to the waterway while elevating the aerial ladder from -8 degrees below to +72 degrees above horizontal.

The heel pivot pin shall not be integral with the waterway swivel at any point. The design of the waterway shall allow complete servicing of the waterway swivel without disturbing the heel pivot pin.

WATERWAY PIPE DIAMETERS

The integral telescopic waterway system shall consist of a 5" outside diameter steel pipe in the base section, a 4-1/2" diameter pipe on the second section, a 4" outside diameter pipe on the third section, and a 3-1/2" outside diameter pipe in the fly section.

CP-84 CHROME PLATED WATERWAY

The CP-84 telescopic waterway shall be composed of high quality 84K PSI steel. The pipes shall be professionally prepared to accept a highly durable, hot dipped galvanizing coating. Preparation shall include de-greasing as needed, followed by shot blasting to remove any contaminates or scale.

Following preparation, each water pipe shall be hot-dipped galvanized. The pipes shall be completely submerged in the galvanizing bath to ensure 100% coverage and intimate bonding of the galvanic coating to the steel. Following the dipping process, all dross shall be ground and the perimeter of the pipe shall be ground to a smooth finish.

Each pipe shall then be prepared to be heavily chrome plated. Materials (nickel/copper/chrome) used in the chrome plating process shall be of the highest purity to complete the chrome plating process. The chrome shall be polished to an extremely high luster.

The result of the preceding processes shall provide an aerial waterway that is of unequaled quality and durability. The heavy galvanizing and chrome plating shall ensure that no corrosion occurs on the waterway and that the outer surface remains smooth for long seal life. Additionally, the chrome plating shall aid in preventing nicks, scratches, and abrasions from occurring where they would otherwise easily occur with softer and more malleable aluminum tubes.

The waterway on the base section of the aerial device shall be galvanized with the process described above, followed by complete coverage utilizing AkzoNobel paint of job color.

Option ID:007925 QTY:1

Positional Waterway, Switched Through AL-11 (75'/100' MMA/UT 100'/105')

POSITIONAL WATERWAY

The waterway shall be a positional or detachable type in order to allow the uppermost fly section to be clear of obstructions when using the aerial device for rescue purposes. It shall be designed in such a manner to allow the master stream device to be secured to either the tip of the fly or to the end of the next lower section. The device shall be designed in such a manner that when it is in the forward position the monitor master stream device shall be connected to the tip of the ladder and when it is toward the back, the device travels with the next lower ladder section. The connection for remote nozzle controls and electricity to the unit shall be permanent and not incorporate any spring loaded cable reels or electrical contact pads that can foul or become damaged allowing the monitor to become inoperable. In addition, the system shall require no external power supply such as a battery to operate the monitor.

A button shall be provided on the AL-11 system at the turntable control console for the positional waterway. The button shall activate an electric actuator mechanism that will lock the monitor in the desired position. Indication shall be provided on the screen of the AL-11 to inform the aerial operator of the current position of the monitor. The verbiage on the screen for the two (2) positions shall read "Rescue" and "Water Tower".

To ensure maximum safety for personnel, units that require a firefighter to climb to the end of the ladder and manually change the position of the waterway will not be considered acceptable.

Option ID:001713 QTY:1

Waterway Relief Valve / Drain Valve

WATERWAY RELIEF VALVE

A 3/4" safety relief valve shall be installed in the base section waterway. The relief valve shall be preset at 240 psi. The valve shall protect the waterway from overpressure, which is normally caused by the capping of the monitor outlet. This valve in no way is to act as a relief for the total flow of the system.

WATERWAY DRAIN VALVE

A 1-1/2" drain valve shall be installed in the lower section of the aerial plumbing under the apparatus. The valve, when opened, shall drain the aerial waterway and lower plumbing.

Option ID:111770 QTY:1

Flow Meter with Paddle Wheel, FRC Insight Ultimate, 4", Turntable

WATERWAY FLOW METER

One (1) Fire Research Insight Ultimate combination digital flowmeter and pressure indicator display shall be installed at the aerial ladder turntable control station.

The kit shall include a flowmeter/pressure display module. The display module case shall be waterproof, manufactured of anodized machined aluminum, and have dimensions not to exceed 4 3/8" high by 4 3/8" wide by 3 1/2" deep. The module shall have a digital LED display for flow with super bright digits more than 3/8" high. The flow rate shall be displayed in GPM. The module shall have an analog display for pressure with an expanded scale in the normal operating range for more accurate readings. The pressure indicator input and movement shall be electronic. Pressure shall be displayed in PSI.

The flowmeter/pressure indicator program features shall be accessed from the front of the module. The program shall support multiple calibration points for flow and pressure, set points for high and low flow warnings, and flow totalizing functions. The pressure indicating needle shall be microprocessor controlled. The module shall be able to communicate with other FRC Insight flowmeters over a datalink.

Option ID:001717 QTY:1

Waterway Inlet, Rear, 4" Inlet and 4" Plumbing (UT 100'/105'/107)

AERIAL WATERWAY INLET

A 4" aerial waterway inlet with 4" plumbing, shall be installed on the rear of the apparatus. The inlet shall be as low as possible to reduce the amount of weight on the fire hose coupling.

Option ID:101347 QTY:1

Valve, 4", Akron, Electric, 8940, Composite Ball, 9333 Navigator Pro Controller (Valve Only)

One (1) Akron Brass, model 8940, 4" Swing-Out valve shall be provided. The valve shall have an all cast brass valve body with a 4" full flow waterway ideal for flows up to 2000 GPM and a maximum body length of 4". The valve shall utilize a Fusion CF composite ball design with a single urethane seat and be structurally rated to 500 PSI with a 250 PSI operating pressure. The valve shall not require the lubrication of seats or any other internal waterway parts and shall be capable of swinging out of the waterway for maintenance by the removal of six bolts. The valve shall carry a ten (10) year warranty by the valve manufacturer.

The valve shall be actuated by an Akron Brass electric actuator installed on the valve. The electric actuator shall have a 25:1 gear ratio, which actuates from fully open to fully closed in eight (8) seconds, a clutchless motor, and utilizes an electric controller with current limiting design.

The electric actuator shall be controlled by an Akron Brass model 9333 Navigator Pro electric valve controller. The electric controls shall be of true position feedback design, requiring no clutches in the motor or current limiting. The unit shall be completely sealed with momentary open, close as well as an optional one (1) touch full open feature to operate the actuator. Two (2) additional buttons shall be available to be used for preset selection, preset activation and menu navigation. The controller shall have up to three (3) preset locations that can be user set and easily recalled upon each use. The unit shall be capable of being used in conjunction with at least two (2) additional displays to control one (1) valve. The unit shall provide position indication through a full-color backlit LCD display. The display shall be a full-color LCD display with a backlight. It shall have manual adjustment of the brightness as well as an auto-dimming option. The unit shall carry a five (5) year warranty.

Option ID:101250 QTY:1

Intake Relief Valve, Aerial, Elkhart, Factory Preset

INTAKE RELIEF VALVE

An Elkhart Brass intake relief valve shall be installed on the suction side of the pump. The valve shall be the preset type, adjustable from 75 to 250 PSI, and shall be designed to prevent vibration from altering the setting. The relief outlet shall be directed below the pump with the discharge terminating in a 2-1/2" male NH threads connection. The discharge shall be away from the pump operator and labeled "Do Not Cap".

Option ID:007744 QTY:1

Bushing, 4" NST - NH Cap (HCC2814AC), Chrome, South Park

A 4" NST waterway weld bushing shall be provided.

One (1) 4" NH thread rocker lug chrome plated vented cap, complete with cable or chain, shall be provided.

Option ID:112156 QTY:1

Aerial Monitor, Electric, Elkhart, Cobra EXM2 7250X2, WITH Stow Signal Output

ELKHART BRASS COBRA EXM MONITOR

An Elkhart Brass 7250X2 Cobra EXM2 electrically controlled monitor shall be installed at the end of the waterway. The monitor shall have the following features:

Durable, lightweight Elk-O-Lite construction with hardened steel worm gears
Fully enclosed 90-degree gear cases and totally sealed electric motors for protection from the elements

Manual override on both motors

Motors are planetary gear type for maximum torque and minimum power drain

Furnished with grease fittings for easy lubrication

Stow signal for stow capabilities
Male outlet 3-1/2" NHT

Option ID:112069 QTY:1

Monitor Finish, Elkhart EXM Anodized Gray

MONITOR FINISH

The monitor shall be hard anodized, lightweight unpainted Elk-O-Lite material and shall not be repainted by the OEM.

Option ID:003552 QTY:1

Nozzle, Electric, Elkhart X-Stream 1250 GPM, SM-1250E, 3-1/2" NH

NOZZLE

An Elkhart Brass, model SM-1250E, X-Stream electric master stream nozzle with 3-1/2" NH thread swivel base shall be provided. The nozzle shall be constructed with a durable hard anodized Elk-O-Lite body. The nozzle shall have a heat treated stainless steel spring mechanism, which reacts automatically to water flow and delivers that flow efficiently throughout the specified flow range. The nozzle shall be designed for flows from 300 to 1250 GPM. The nozzle shall be rated at an operating pressure of 75 PSI. The nozzle shall include an encased 12-volt DC electric motor with manual override to change stream pattern.

Option ID:911204 QTY:1

Monitor Sweep, Ladder, Single Monitor

MONITOR SWEEP

The monitor shall be capable of vertical positioning from -135 degrees to 0 degrees and horizontal positioning of 90 degrees from side to side, for a full 180-degree sweep.

Option ID:911209 QTY:1

Master Stream Controls, Turntable and Ladder Tip

MONITOR CONTROLS

The aerial master stream device shall have two (2) separate control stations. One station shall be at the main aerial turntable control console. The other station shall be located at the tip of the aerial ladder. Each station shall have the capability of controlling the nozzle pattern as well as the horizontal and vertical position of the device.

Option ID:112116 QTY:1

Valve Under Monitor (VUM), TFT, Electric, (1) 2-1/2" NST Left Gated Discharge, With Drain, AKE13-B181D

2-1/2" AERIAL TIP DISCHARGE

A 2-1/2" discharge shall be located at the tip of the aerial ladder. The discharge shall

have a Task Force Tips VUM electrically controlled monitor valve provided under the monitor. The valve shall be controlled by a remote panel mounted push-button switch with LED lights to indicate valve position and shall be included. The valve can also be controlled with an NFPA compliant slow-close knob which can be configured for left or right-hand operation on the valve. A position indicator shall be provided on the valve to allow for quick visualization of the status of the valve in the open, closed or partial positions. The unit shall have a flow capability of up to 2000 GPM with friction loss no more than 6 psi. For maximum corrosion protection, the aluminum casting shall be hard-coat anodized, with a silver powder coat internal and external finish. The valve ball shall be stainless steel and have an automatic drain for draining waterway when the valve is closed and unpressurized. The unit shall have a unique serial number and be covered by a five-year warranty.

The valve shall be configured with a 4" ANSI 150 flange inlet and 4" ANSI 150 flange outlet. Port C1 shall be located on the left side of the ladder and have a left-hand elbow quarter turn ball valve with 2-1/2" NH male outlet installed. Ports C2 and C4 shall have blind plugs installed. C3 shall be located on the right side of the ladder and have an External Automatic Drain Valve. All 2-1/2" NH male discharges shall have a 2-1/2" NH female by 1-1/2" NH male thread reducer and a 1-1/2" NH female cap with lanyard.

Option ID:008326 QTY:1
Rope Rescue Package

ROPE RESCUE PACKAGE

An aerial rope rescue package shall be installed with the following components:

RESCUE ROLLER ASSEMBLY

A rescue roller assembly shall be provided for use on the tip of the fly section. This assembly shall be used to keep rope that is pulled from the operator's turntable position from being frayed or rubbing on and uneven surface of the aerial ladder. Two (2) rollers shall be provided on the assembly, capable of passing 1/2" rope. The entire assembly shall be removable and the plate shall be coated with black Bedliner Coating, a thermoplastic polyurethane coating.

RESCUE ROLLER ASSEMBLY - MOUNTING BRACKET

A mounting bracket shall be provided on the forward portion of the base section for storing the rescue roller assembly.

RESCUE ROPE CHANGE OF DIRECTION ASSEMBLY

A rescue rope change of direction assembly shall be provided for use with the roller assembly on the tip of the fly section. This assembly shall allow the rope to be pulled from different directions. The assembly shall be mounted at the base of the ladder. The entire assembly shall be removable.

RESCUE ROPE C.O.D. ASSEMBLY - MOUNTING BRACKET

A mounting bracket shall be provided on the rear portion of the base section for storing the rescue rope change of direction assembly.

Option ID:111925 QTY:1
Rung Lighting, Blue LED (105')

RUNG ILLUMINATION LIGHTING

The aerial ladder sections shall be equipped with permanently installed blue LED rung illumination lights. The lights shall be mounted on the inside of the ladder sections, facing inward; on each aerial section in a "staggered" configuration. The blue colored lens shall serve to illuminate ladder rungs without inducing any glare, which would hinder safety. Each light shall be equipped with an integral guard to protect it from damage. The lights shall be positioned such that all light be directed inward toward the rungs of the aerial sections, maximizing safety for all personnel during night operations. The lights shall also aid the operator in locating aerial ladder section in conditions of reduced visibility.

Designs that use luminescent tape on the rungs shall not be permitted as they require previous exposure to sunlight and can wear off over time.

Option ID:111933 QTY:1
Rung Lighting Switch, AL-11

The rung lighting shall be controlled through the AL-11 system.

Option ID:007022 QTY:1
Ladder Signs (2), On Base Section

AERIAL LADDER SIGNS

Two (2) sign panels measuring 16" tall x 133" long shall be installed on the base section of the aerial ladder, one on each side. The sign panels shall be fabricated of 1/8" aluminum plate. The signs shall be large enough to accept a maximum lettering size of 12" high.

Option ID:111956 QTY:1
Pike Pole Storage, Officer's Side Fly Section, 6' Pole

FLY SECTION MOUNTED PIKE POLE

One (1) pike pole mounting bracket shall be provided on the officer's side of the aerial fly section. A strap shall be provided to hold the pike pole in the bracket.

Option ID:111962 QTY:1
Solid Beam Roof Ladder Storage, Driver's Side Fly Section, Special Width Ladder

FLY SECTION MOUNTED ROOF LADDER

One (1) roof ladder mounting bracket shall be provided on the driver's side of the fly section for a special width solid beam roof ladder. The brackets shall be formed using break and bend techniques for added strength and an outstanding appearance. Protective rubber pads shall be installed to prevent damage to the roof ladder where the

roof ladder contacts the mounting brackets. Stainless steel fasteners shall be employed where the ladder bracket is bolted to the aerial section. When installed in the brackets, the roof ladder shall be retained so that it will not come out of the brackets unexpectedly. The bracket shall be coated with black Bedliner Coating thermoplastic polyurethane.

Option ID:008200 QTY:1

Ladder (1), Duo-Safety, 16' Aluminum Roof (Special Width), 875-A

One (1) Duo-Safety, model 875-A, 16' aluminum roof ladder with folding roof hooks and a special 14" width shall be provided.

Option ID:900717 QTY:1

Chassis Paint, Chassis Manufacturer Painted, Single Tone

CHASSIS PAINT

The single tone chassis cab shall be painted by the chassis manufacturer.

Option ID:009165 QTY:1

Body Paint, Single Tone, Aerial, Aluminum Material

BODY PAINT PREPARATION

The apparatus body and components shall be metal finished as follows to provide a superior substrate for painting:

- All aluminum sections of the body shall undergo a thorough cleaning process, starting with a phosphoric acid solution to begin the etching process, followed by a complete rinse. The next step shall consist of a chemical conversion coating applied to seal the metal substrate and become part of the aluminum surface for greater film adhesion.
- After the cleaning process, the body and its components shall be primed with a high solids primer and the seams shall be caulked.
- All bright metal fittings, if unavailable in stainless steel or polished aluminum, shall be heavily chrome plated. Iron fittings shall be copper underplated prior to chrome plating.

PAINT PROCESS

The paint process shall follow the strict standards as set forth by AkzoNobel Guidelines.

The body shall go through a three-stage paint process: primer coat, base coat (color), and clear coat. In the first stage of the paint process, the body shall be coated with primer to achieve a total thickness of 2-4 mills. In the second stage of the paint process, the body shall be painted with BTLV650 High Solids Polyurethane Base Coat. A minimum of two to three coats of paint shall be applied to achieve covering. In the final stage of the paint process, the body shall be painted with a Clear Top Coat. A minimum of two to three coats shall be applied to achieve a total dry film thickness of 2-3 mills.

As part of the curing process, the painted body shall go through a Force Dry / Bake Cycle process. The painted components shall be baked at 185 degrees for 3 hours to achieve a complete coating cure on the finished product.

HAND POLISHED

After the Force Dry / Bake Cycle and ample cooldown time, the coated surface shall be sanded using 3M 1000, 1200, and/or 1500 grit sandpaper to remove surface defects. In the final step, the surface shall be buffed with 3M super-duty compound to add extra shine to coated surface. No more than .5 mil of clear shall be removed in this process.

Option ID:008907 QTY:1

Body Paint Color, Aerial, Single Tone, Red, AkzoNobel #32545

BODY PAINT COLOR

The body shall be painted with High Solids Polyurethane Base Coat.

The single tone body shall be painted AkzoNobel #32545 red.

Option ID:008794 QTY:1

Aerial Ladder Paint Color, White, AkzoNobel #41876, 75 RMA, 105', UT 100', 107

AERIAL COMPONENT PROTECTION / PAINT

All aerial device components above the rotation point that are not chrome plate, bright aluminum tread plate, or stainless steel shall be painted. All areas to be painted shall be sanded to remove any metal flakes and smooth any rough surfaces. All surfaces to be painted shall be phosphatized to remove metal impurities, aid paint adhesion and inhibit rust. The components shall be primed and finish painted with a high gloss polyurethane paint. The support structure and components below the rotation point shall be painted black.

The extending stabilizer beams, inner jack cylinder protective tubes, and stabilizer pads shall be hot dip galvanized. The extending stabilizer beams, inner jack tubes, and stabilizer pads shall be shot blasted to remove any mill scale, or contamination prior to galvanizing.

Following this preparation, the individual components shall be hot dip galvanized. The galvanizing process requires that the entire assembly be completely submerged. Following the galvanizing process, the surface shall be ground smooth to remove dross. This preparation shall provide maximum protection for these critical components. Following surface preparation, components shall be coated with black water-based self-etching coating. No exceptions shall be allowed to this requirement.

The high gloss polyurethane paint, which shall be applied to the aerial ladder sections and other components above the rotation point, shall be cured at an elevated temperature for a period not less than 2 hours to enhance durability and appearance. The temperature shall not be less than 180 degrees Fahrenheit. Curing of the paint shall promote a chemical reaction within the substrate that shall harden the paint. The curing shall be performed in a clean, sealed, controlled atmosphere. The atmosphere shall comply with all environmental standards and any air entering the chamber shall be filtered.

AERIAL DEVICE PAINT COLOR

The aerial device shall be painted with AkzoNobel High Solids polyurethane enamel paint. The color shall be AkzoNobel #41876 white.

Option ID:901036 QTY:1
Aerial Corrosion Protection

AERIAL CORROSION PROTECTION

Internal structural members of the aerial structure shall be 100% concealed from oxygen or have corrosion protection applied. Totally sealed members are not subject to the possibility of corrosion attacking the metal from the interior.

The structural tubing of the aerial structure that contains drilled holes or is exposed to outside air and elements shall be protected to eliminate the possibility of corrosion occurring on the inside of the tube. No exceptions as this is imperative to the strength and integrity of the aerial structure.

The interior of exposed tubing shall be coated with a compound labeled NWAC 120-4. The application of the coating shall be applied after the welding process of the aerial structure is complete and shall cover 100% of the interior of the structural tube. NWAC 120-4 is an effective cavity corrosion inhibitor that provides long-term protection for both ferrous and non-ferrous metals. The resulting water-repellent, flexible, air-dried film has crevice penetrating, spreading and clinging characteristics. The product dries to a nearly transparent film and provides maximum corrosion protection for all void spaces subject to humidity and condensation.

Option ID:000968 QTY:1
Aerial Egress Paint, Red, AkzoNobel #32035

AERIAL LADDER EGRESS PAINT COLOR

The aerial ladder egress shall be painted with AkzoNobel High Solids polyurethane enamel paint. The color shall be red.

Option ID:911225 QTY:1
Ladder Sign Paint, Match Aerial Ladder Structure Color

AERIAL LADDER SIGN PAINT COLOR

The aerial ladder signs, mounted on the base section, shall be painted the same color as the aerial ladder.

Option ID:001170 QTY:1
Under Body Finish, Two-Step Undercoating Process

UNDERCOATING

The apparatus shall undergo a two-step undercoating process. The first step shall be a rubberized polyurethane base compound applied after the body has been primed. The materials used incorporate unused paint products to reduce the amount of waste released into the environment. This coat shall be applied to all hidden pockets and surfaces that are not visible after completion.

As a final step, the entire underside of the body shall be coated with a bituminous based

automotive type undercoating when the apparatus is completed. During this application, special care shall be taken to avoid spraying the product on air lines, cables, or other items that would hinder normal maintenance.

Option ID:006089 QTY:1

Corrosion Protection, Electrolysis Corrosion Kontrol (ECK)

CORROSION PREVENTION

One (1) 3.75 ounce tube of Electrolysis Corrosion Kontrol (ECK) shall be provided to use when additional items are mounted to the apparatus. ECK protects aluminum and stainless steel against electrolytic reaction, isolates dissimilar metals and gives bedding protection for hardware and fasteners. ECK contains an anti-seizing lubricant for threads. ECK is dielectric and perfect for use with electrical connectors.

Option ID:900875 QTY:1

Coating Material Technical Specification, Bedliner Coating

Bedliner Coating THERMOPLASTIC COATING

In designated areas, Bedliner Coating XS-350, a two-component spray-in-place thermoplastic polyurethane system shall be used for maximum protection of the body and equipment. Bedliner Coating XS-350 is a 100% high-performance aromatic solids pure Polyurea elastomeric membrane. The coating shall be a fast cure, textured surface, multi-purpose material designed for commercial and industrial applications. It shall adhere to the body and serve as a protective, abrasion resistant liner where applied.

The coating shall exhibit the following minimum typical physical properties:

- Tensile strength - 3,432 PSI (ASTM D-412)
- Elongation - 162% (ASTM D-412)
- Tear Strength - 783 PLI (ASTM D-624)
- Shore D Hardness - 60 +/-1 (ASTM D-2240)

Option ID:001033 QTY:1

Sample Paint Card with Paint Formula

SAMPLE PAINT CARD

One (1) sample paint card shall be provided with the apparatus. The card shall show an example of the apparatus body color on one side and have the specific AkzoNobel paint formula printed on the reverse side.

Option ID:004523 QTY:1

Rub Rail Striping, 2", Silver, Reflective, Aerial

RUB RAIL REFLECTIVE STRIPING

There shall be 2" reflective striping installed in the rub rail channel. The reflective striping shall be diamond grade quality material for increased visibility. The reflective shall be silver in color.

Option ID:008704 QTY:1

Body Striping, Aerial, 1"-6"-1", High Angle Transition

REFLECTIVE STRIPING

3M Scotchlite Retroreflective striping shall be applied to the exterior of the apparatus and shall conform to the reflectivity requirements in accordance with NFPA 1901, current edition.

The striping shall consist of:

- 1" retroreflective stripe
- 1" gap
- 6" retroreflective stripe
- 1" gap
- 1" retroreflective stripe

The striping shall be low across the front of the chassis and along the sides up to the first compartment on each side where it shall angle up to a point in the upper compartments, where it then shall run level to the back edge of the body.

Option ID:900881 QTY:1

Upper Stripe Color, Black

The upper stripe shall be black.

Option ID:900900 QTY:1

Main Stripe Color, Blue

The main stripe shall be blue.

Option ID:900917 QTY:1

Lower Stripe Color, Black

The lower stripe shall be black.

Option ID:121752 QTY:1

Stabilizer Beam Striping, Front and Rear, (4) Stabilizers, 4" Reflective Striping, White

REFLECTIVE STRIPING - STABILIZER BEAMS

Retroreflective striping shall be installed on the front and rear sides of the four (4) horizontally extending stabilizer beams for increased visibility when extended. The striping shall be 4" wide and white in color.

Option ID:900935 QTY:1

Chevron Color, Red / Fluorescent Yellow-Green, 3M 1172EC & 3983

CHEVRON COLOR - RED/FLUORESCENT YELLOW-GREEN

The chevron striping shall consist of red, 3M part number 1172 EC, and fluorescent yellow-green, 3M part number 3983, and shall meet the chevron color requirements in accordance with NFPA 1901, current edition.

Only 3M Diamond Grade VIP Reflective Striping shall be used. 3M Diamond Grade VIP Reflective Striping is a wide-angle prismatic lens reflective sheeting designed for the production of durable traffic control signs and delineators that are exposed vertically in service. This sheeting is designed to provide higher sign brightness than sheeting's that use glass bead lenses. It is intended to also provide high sign brightness in the legibility distance where other sheeting's do not. If something other than 3M is being used, third party documentation must be provided with the bid to prove it is compliant with Federal DOT and NFPA 1901, current edition.

Option ID:007383 QTY:1

Chevron Layout, Rear Body Surface, Torque Box Lap Door, Ladder Storage Doors

CHEVRON STRIPING - REAR BODY

Retroreflective striping shall cover at least 50% of the rear-facing vertical surfaces in accordance with NFPA 1901, current edition. The striping shall be in a chevron pattern sloping downward and away from the centerline of the apparatus at an angle of 45 degrees. Each stripe shall be a minimum of 6" in width. The striping shall consist of a solid base layer of reflective material and alternate between the exposed base layer material and durable, transparent, acrylic colored film.

The chevron pattern shall include rear face of the body, the torque box lap door, and the ladder storage compartment doors.

Option ID:RFW0002 QTY:1

General Two (2) Years or 36,000 Miles Limited Warranty

General Two (2) Years or 36,000 Miles Limited Warranty

Purchaser shall receive a General Two (2) Years or 36,000 Miles limited warranty in accordance with, and subject to, warranty certificate RFW0002. The warranty certificate is incorporated by reference into this proposal, and included with this proposal or available upon request.

Option ID:RFW0502 QTY:1

Body Structure (Aluminum) Ten (10) Years or 100,000 Miles Limited Warranty

Body Structure (Aluminum) Ten (10) Years or 100,000 Miles Limited Warranty

Purchaser shall receive a Body Structure (Aluminum) Ten (10) Years or 100,000 Miles limited warranty in accordance with, and subject to, warranty certificate RFW0502. The warranty certificate is incorporated by reference into this proposal, and included with this proposal or available upon request.

Option ID:RFW0403 QTY:1

Aerial Ladder Structure Twenty (20) Years or 100,000 Miles Limited Warranty

Aerial Ladder Structure Twenty (20) Years or 100,000 Miles Limited Warranty

Purchaser shall receive a Aerial Ladder Structure Twenty (20) Years or 100,000 Miles limited warranty in accordance with, and subject to, warranty certificate RFW0403. The warranty certificate is incorporated by reference into this proposal, and included with this proposal or available upon request.

Option ID:RFW0421 QTY:1

Aerial Leak-Free Hydraulics Three (3) Years or 48,000 Miles Limited Warranty

Aerial Leak-Free Hydraulics Three (3) Years or 48,000 Miles Limited Warranty

Purchaser shall receive a Aerial Leak-Free Hydraulics Three (3) Years or 48,000 Miles limited warranty in accordance with, and subject to, warranty certificate RFW0421. The warranty certificate is incorporated by reference into this proposal and included with this proposal or available upon request.

Option ID:RFW0810 QTY:1

Aerial Waterway Ten (10) Years or 100,000 Miles Limited Warranty

Aerial Waterway Ten (10) Years or 100,000 Miles Limited Warranty

Purchaser shall receive a Aerial Waterway Ten (10) Years or 100,000 Miles limited warranty in accordance with, and subject to, warranty certificate RFW0810. The warranty certificate is incorporated by reference into this proposal, and included with this proposal or available upon request.

Option ID:RFW0202 QTY:1

Electrical Two (2) Years or 36,000 Miles Limited Warranty

Electrical Two (2) Years or 36,000 Miles Limited Warranty

Purchaser shall receive a Electrical Two (2) Years or 36,000 Miles limited warranty in accordance with, and subject to, warranty certificate RFW0202. The warranty certificate is incorporated by reference into this proposal, and included with this proposal or available upon request.

Option ID:RFW0800 QTY:1

Plumbing and Piping (Stainless Steel) Ten (10) Years or 100,000 Miles Limited Warranty

Plumbing and Piping (Stainless Steel) Ten (10) Years or 100,000 Miles Limited Warranty

Purchaser shall receive a Plumbing and Piping (Stainless Steel) Ten (10) Years or 100,000 Miles limited warranty in accordance with, and subject to, warranty certificate

RFW0800. The warranty certificate is incorporated by reference into this proposal, and included with this proposal or available upon request.

Option ID:WLF810 QTY:1

Warranty, Water Tank, Pro Poly, Standard Lifetime

WATER TANK WARRANTY

The tank shall be complete with a lifetime warranty. The tank manufacturer shall permanently mark the tank and furnish notice that indicates proof of warranty. Full details shall be provided in the complete warranty document.

Option ID:RFW0710 QTY:1

Paint and Finish (Exterior Clear coated) Ten (10) Years Limited Warranty

Paint and Finish (Exterior Clear coated) Ten (10) Years Limited Warranty

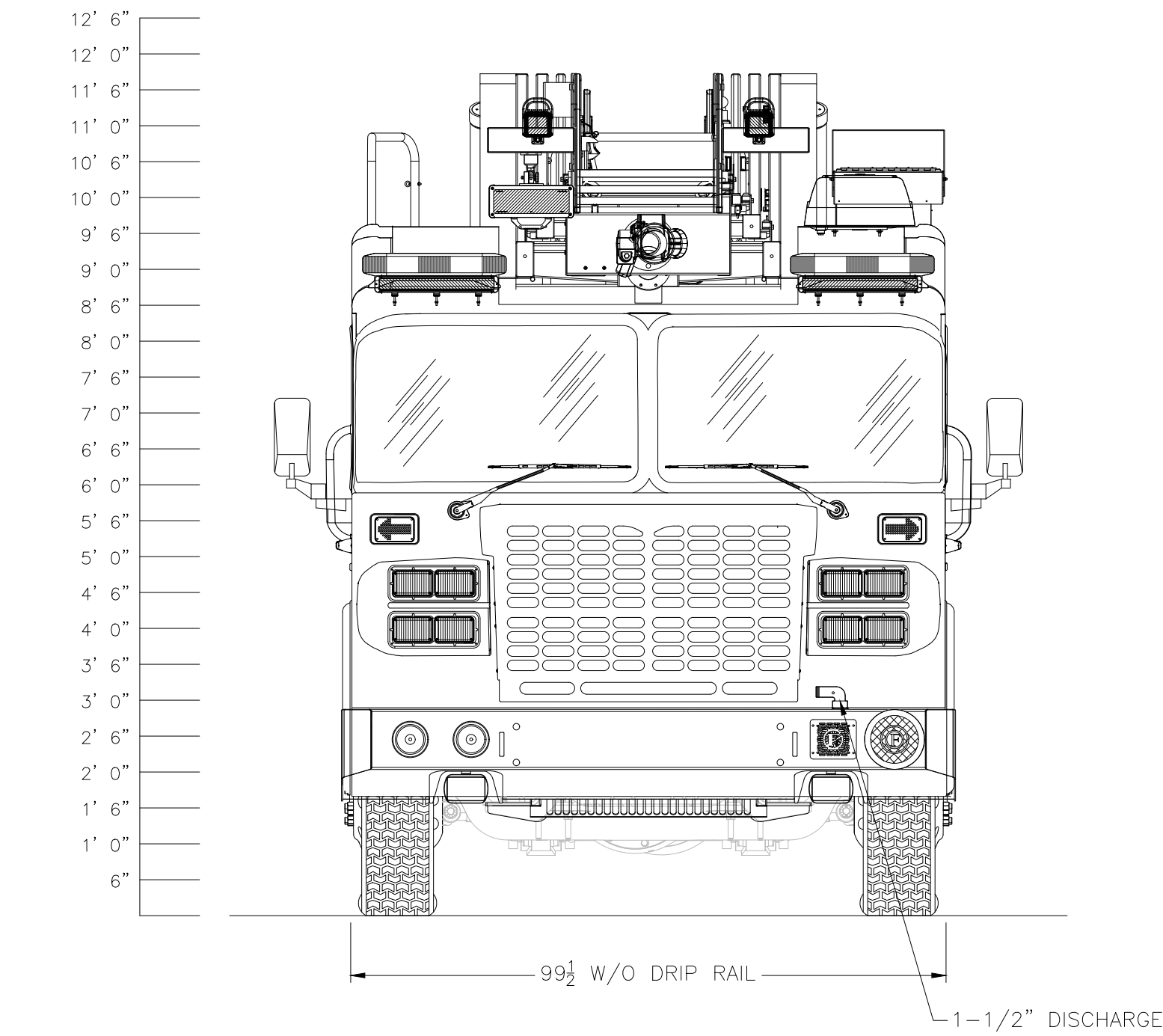
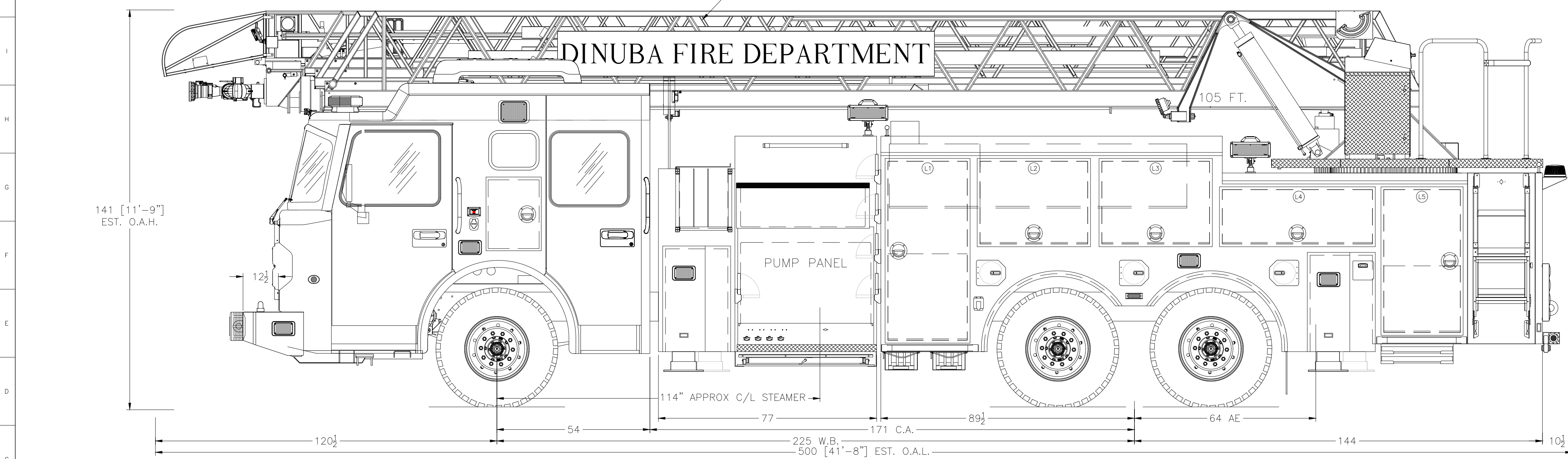
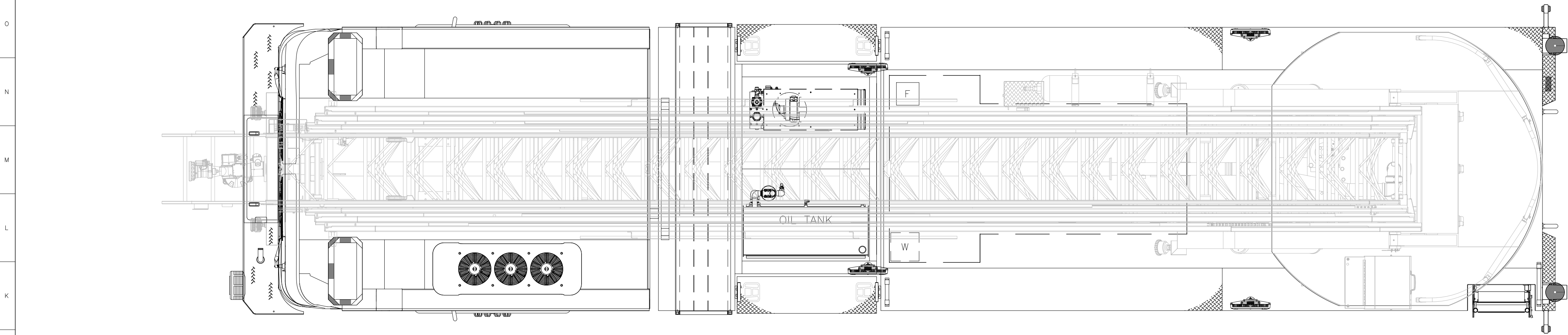
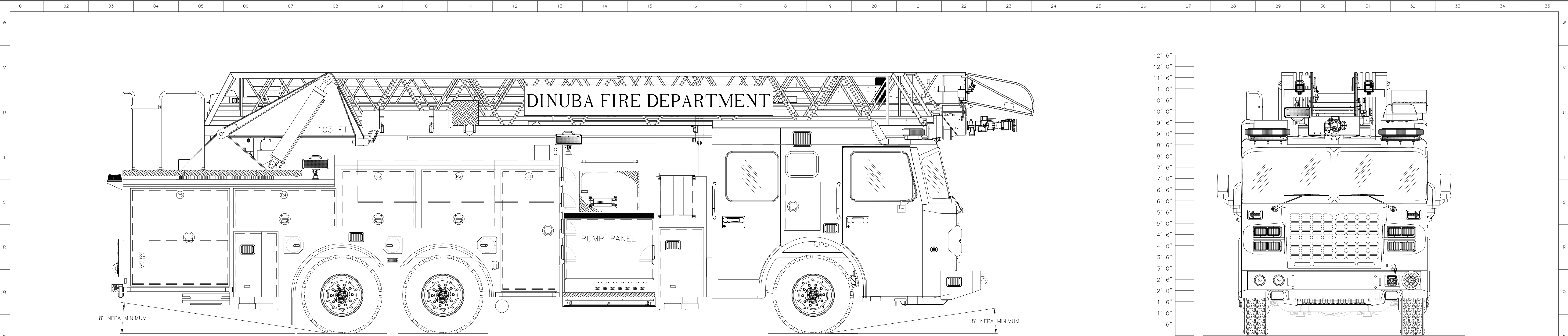
Purchaser shall receive a Paint and Finish (Exterior Clear coated) Ten (10) Years limited warranty in accordance with, and subject to, warranty certificate RFW0710. The warranty certificate is incorporated by reference into this proposal, and included with this proposal or available upon request.

Option ID:W05810-A QTY:1

Warranty, Pump, Waterous, Standard 7 Year

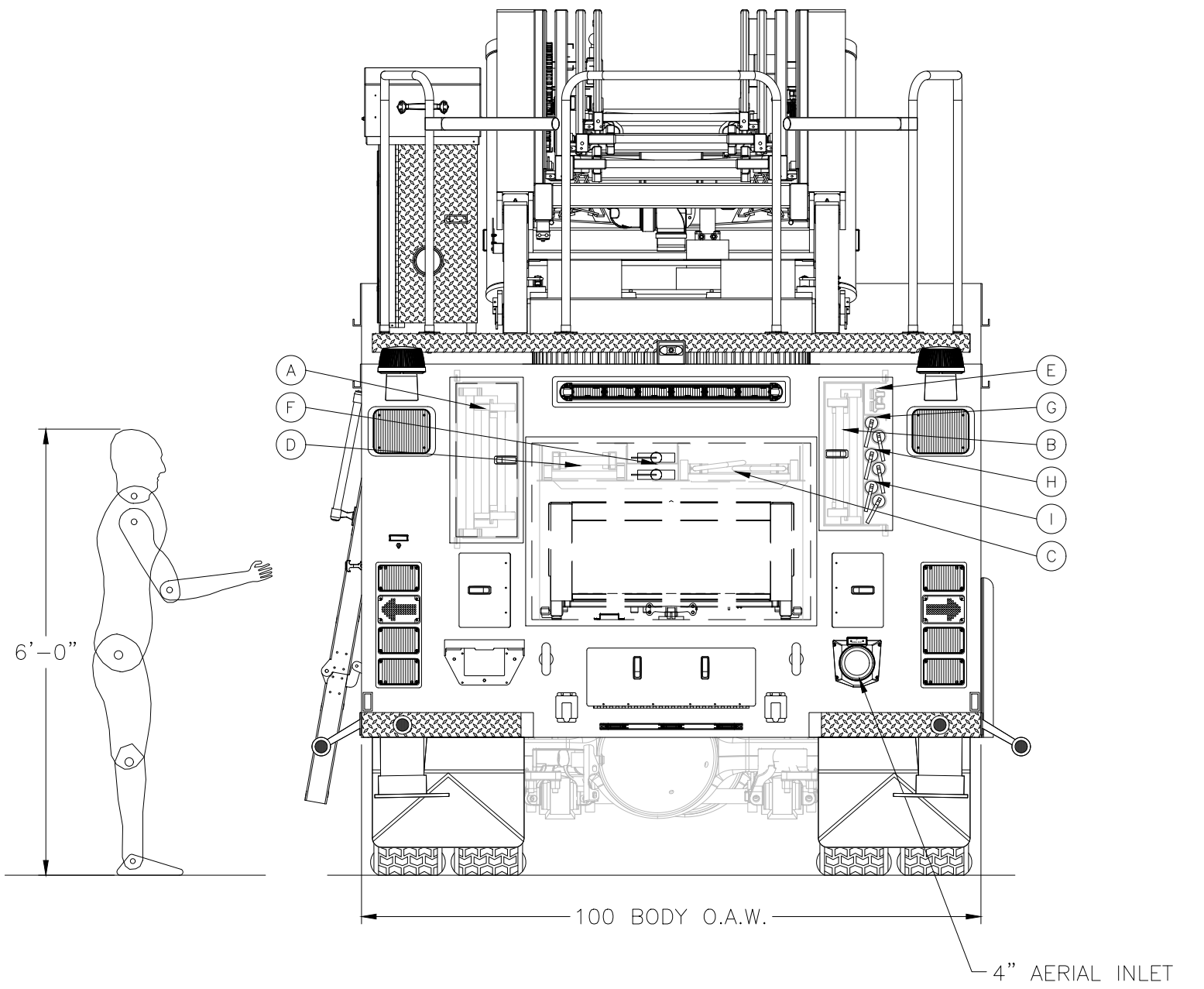
PUMP WARRANTY

The fire pump shall be warranted by Waterous for a period of seven (7) years from the date of delivery to the fire department or seven and one-half (7-1/2) years from the shipment date by Waterous, whichever period expires first. Full details shall be provided in the complete warranty document.



COMPARTMENT DIMENSIONS					
COMPT.	DOOR OPENING	INTERIOR	DIVIDE HEIGHT	UPPER DEPTH	LOWER
L1	28"W x 62"H	30.5"W x 71.5"H	30"	13"	22"
L2	38"W x 28"H	42.5"W x 37.5"H	—	13"	13"
L3	38"W x 28"H	47.5"W x 37.5"H	—	13"	13"
L4	53"W x 18"H	53"W x 24.5"H	—	13"	13"
L5	27"W x 50"H	33.5"W x 55.75"H	23"	13"	23"
R1	28"W x 62"H	30.5"W x 71.5"H	25"	13"	22"
R2	38"W x 28"H	42.5"W x 37.5"H	—	13"	13"
R3	38"W x 28"H	47.5"W x 37.5"H	—	13"	13"
R4	53"W x 18"H	53"W x 24.5"H	—	13"	13"
R5	51"W x 50"H	55"W x 55.75"H	23"	13"	23"

GROUND LADDERS & PIKE POLES			
ITEM	DESCRIPTION	MODEL #	QTY
A	35' 3" SEC. EXTENSION	1225-A	1
B	24' 2" SEC. EXTENSION	900-A	1
C	16' ROOF	875-A	1
D	14' FRESNO ATTIC	701	1
E	10' FOLDING ATTIC	585-A	1
F	4' D-HANDLE PIKE POLE	FP4D	2
G	6' PIKE POLE	FP6	2
H	8' PIKE POLE	FP8	2
I	12' PIKE POLE	FP12	2
FLY	J 16' ROOF (SPECIAL)	875-A	1



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REVISION HISTORY			DESCRIPTION
REV.	INT.	DATE	
01	CL	4/15/22	ORIGINAL LAYOUT

PROPOSAL

CHASSIS: SPARTAN GLADIATOR MFD 10" RAISED ROOF WITH 13" TRENCH
ENGINE: CUMMINS X15 605HP WITH ALLISON 4000 EVS
PUMP: WATEROUS CSUC20 2000 GPM
WATER TANK: 400 U.S. GAL
FOAM CELL: 40 U.S. GAL
BODY MATERIAL: 1/8" ALUMINUM
HOSE BED: 1000' OF 5" / 39 CUBIC FEET
GENERATOR: HARRISON 10KW MCR
COMPARTMENTS: 160 CUBIC FEET



DINUBA FIRE DEPARTMENT			
DINUBA, CA			
MODEL:	105' REAR MOUNT AERIAL (S34RL-105)		
DEALERSHIP:	FIRE APPARATUS SOLUTIONS		
SCALE: 1/2" = 1'	DRAWN BY: CL	DATE: 4/15/22	
SIZE: 24" X 36"	DRAWING NO: 22355	REV: 01	
SHEET: 1 OF 1			



City Council Staff Report

Department: PARKS AND COMMUNITY
SERVICES

March 28, 2023

To: Mayor and City Council

From: Stephanie Hurtado, Parks and Community Services Director

Subject: Parks Use Fee Waiver for Blessing of the Bikes and Cars 2023 Event at Rose Ann Vuich Park (SH)

RECOMMENDATION

Council approve the use of Rose Ann Vuich Park to Unity Crew for the "Blessing of the Bikes and Cars" event and waive the park rental fee in the amount of \$440.

EXECUTIVE SUMMARY

Unity Crew is requesting to hosting the annual Blessing of the Bikes and Cars event at Rose Ann Vuich Park May 20th, 2023. The event is open to the public.

OUTSTANDING ISSUES

None.

DISCUSSION

The Blessing of the Bikes and Cars is an annual event. This year's event will be hosted by Unity Crew, a local street ministry group of motorcycle and car enthusiasts from Christian Worship Center. They are requesting to host this years event May 20th, 2023 at Rose Ann Vuich Park. There will be food vendors, merchandise, music and the blessing ceremony.

The event is an annual tradition in which the riders of motorcycles, bicycles and cars are blessed by a prayer group in the hopes that it will bring safety for the up coming season. The event is non-denominational, focusing more on the riders safety than religion. However the services does include prayer and reading of biblical passages. A memorial service is held to acknowledge riders who have passed in the previous year. Riders come from all areas and states to partake in this event.

The estimated attendance for this event is 450 participants. Christian Worship Center

is requesting to use the Bandshell from 8:00AM to 4:00PM. They are prepared to purchase liability insurance, reserve portable potties, and pay for electricity, staff supervision and security.

FISCAL IMPACT

The full day park rental waiver for both picnic pavilion and bandshell is \$440.

PUBLIC HEARING

None required.

ATTACHMENTS:

Blessings of the Bikes and Cars Request Letter

03/15/2023

City of Dinuba

405 E. El Monte way

Dinuba CA. 93618

Dear City of Dinuba,

We are writing to you regarding The Blessing of The Bikes that has taken place in Dinuba, Ca for the past several years. This event was organized by Mr. Joe De Luna, his family and Unity Christion crew. Unfortunately, Mr. De Luna lost his battle to pancreatic cancer. Upon speaking with his family this event is an event they would like to see continue as it has a significant meaning to many people in different ministry's, biker & car communities as well as the people of Dinuba. We have seen it firsthand, how this event has brought worship, families entertainment, car and bike enthusiasts and the community together whether it is as an attendee, participant, or sponsor.

Our mission is to make this a safe, family and fun unforgettable event for everybody to worship, and enjoy the day. We know that these events hosted in our city have benefited the city and local businesses by bringing in more customers and visitors.

As you have seen in the past this event is a large event which in includes a large public attendee along with cars, trucks, motorcycles, which is what contributes to this event being a successful one and meaningful one. We are requesting permission to use the Rose Vuich Park in Dinuba, California for this event. We also understand there are financial cost that come with this request, as I mentioned earlier the De Luna family would like to see this event continue as their loved one worked very hard on making this event a success every year in the city of Dinuba. The De Luna family has decided to pass the reigns of this event to Next Level Intervention Ministry in Dinuba, Ca. who is striving to continue the tradition of the blessing of the bikes, bring families, worship, entertainment, and overall, safe and fun event to Dinuba. At this time, we would like to ask the City of Dinuba to please honor our request to wave all fees for the use of the Rose Vuich Park in Dinuba CA.

Sincerely,

Next Level Intervention

A handwritten signature in blue ink, appearing to read "Joe De Luna", with a long horizontal flourish extending to the right.



City Council Staff Report

Department: FINANCE SERVICES

March 28, 2023

To: Mayor and City Council
From: Karina Solis, Administrative Services Director
By: Maria Alaniz, City Clerk/Human Resources Director
Subject: Warrant Register March 17 & 24, 2023 (KS)

RECOMMENDATION

Council to review and approve the Warrant Register as presented.

EXECUTIVE SUMMARY

None.

OUTSTANDING ISSUES

None.

DISCUSSION

None.

FISCAL IMPACT

None.

PUBLIC HEARING

None required.

ATTACHMENTS:

WR 03.17.2023
WR 03.24.2023



Accounts Payable Invoice Report

Payment Date Range 03/11/23 - 03/17/23
Report By Vendor - Invoice
Summary Listing

Invoice Number	Invoice Description	Status	Held Reason	Invoice Date	Due Date	G/L Date	Received Date	Payment Date	Invoice Net Amount
Vendor 1143 - AAA Quality Services, Inc.									
00334571	Fy 22/23-Parks-Portable potty rentals/clngs for Centennial park	Paid by Check #40826		03/11/2023	03/17/2023	03/17/2023	03/13/2023	03/17/2023	258.13
00334572	Fy 22/23-Parks-Portable potty rentals/clngs for Nebraska park	Paid by Check #40826		03/11/2023	03/17/2023	03/17/2023	03/13/2023	03/17/2023	280.13
Vendor 1143 - AAA Quality Services, Inc. Totals							Invoices	2	\$538.26
Vendor 263 - Advantek Benefit Administrators									
03/10/2023	03/10/2023	Paid by Check #40827		03/10/2023	03/17/2023	03/17/2023		03/17/2023	29,185.09
Vendor 263 - Advantek Benefit Administrators Totals							Invoices	1	\$29,185.09
Vendor 1599 - Adventist Health Toxicology									
1873	PD - Toxicology Service	Paid by Check #40828		03/06/2023	03/17/2023	03/17/2023		03/17/2023	1,474.00
Vendor 1599 - Adventist Health Toxicology Totals							Invoices	1	\$1,474.00
Vendor 55 - American Water Works Association									
Medina Kingsburg	Medina Kingsburg 4/21/2023	Paid by Check #40830		03/03/2023	03/17/2023	03/17/2023		03/17/2023	285.00
Zuniga Kingsburg	Zuniga Kingsburg Training 4/21/2023	Paid by Check #40829		03/03/2023	03/17/2023	03/17/2023		03/17/2023	285.00
Vendor 55 - American Water Works Association Totals							Invoices	2	\$570.00
Vendor 351 - Anthem Blue Cross									
000272620123	ROBERTS 210A78781 03/01/23-05/31/23	Paid by Check #40831		02/07/2023	03/17/2023	03/17/2023		03/17/2023	865.62
000274900603	ROBERTS 102A78783 04/01/23-04/30/23	Paid by Check #40832		03/04/2023	03/17/2023	03/17/2023		03/17/2023	94.50
Vendor 351 - Anthem Blue Cross Totals							Invoices	2	\$960.12
Vendor 21 - Aramark Uniform Services Inc.									
5031157228	Fy 22/23-Parks-Uniforms for the week of 03/8/23	Paid by Check #40833		03/08/2023	03/17/2023	03/17/2023	03/08/2022	03/17/2023	73.78
Vendor 21 - Aramark Uniform Services Inc. Totals							Invoices	1	\$73.78
Vendor 17 - AT&T									
250127196103/23	405 E El Monte Way 03/01/23-03/31/23	Paid by Check #40834		03/01/2023	03/17/2023	03/17/2023		03/17/2023	76.39
939105447603/23	Telephone 02/10/23-03/09/23	Paid by Check #40835		03/10/2023	03/17/2023	03/17/2023		03/17/2023	24.49
939105446103/23	Telephone 02/11/23-03/10/23	Paid by Check #40838		03/11/2023	03/17/2023	03/17/2023		03/17/2023	24.49
939105446603/23	Telephone 02/11/23-03/10/23	Paid by Check #40837		03/11/2023	03/17/2023	03/17/2023		03/17/2023	24.49
939105446703/23	Telephone 02/11/23-03/10/23	Paid by Check #40836		03/11/2023	03/17/2023	03/17/2023		03/17/2023	47.30
939105475603/23	Telephone 02/11/23-03/10/23	Paid by Check #40839		03/11/2023	03/17/2023	03/17/2023		03/17/2023	386.25
559596064902/23	PW - telephone 02/26/23-03/25/23	Paid by Check #40840		02/26/2023	03/17/2023	03/17/2023		03/17/2023	2,625.59
Vendor 17 - AT&T Totals							Invoices	7	\$3,209.00
Vendor 376 - BCS Consulting, LLC									



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2023102	PD - Installation/Cabling of 15 MP IP Cameras	Paid by Check #40841		03/07/2023	03/17/2023	03/17/2023		03/17/2023	14,890.65
		Vendor	376 - BCS Consulting, LLC Totals			Invoices		1	\$14,890.65
Vendor 74 - Buddy's Trophies									
33423	Fy 22/23-Sports Program-Trophies for 2023 BB season	Paid by Check #40842		02/21/2023	03/17/2023	03/17/2023	03/13/2023	03/17/2023	2,796.01
		Vendor	74 - Buddy's Trophies Totals			Invoices		1	\$2,796.01
Vendor 80 - California Business Machines									
319020	PD - Printers Maintenance	Paid by Check #40843		03/10/2023	03/17/2023	03/17/2023		03/17/2023	324.06
		Vendor	80 - California Business Machines Totals			Invoices		1	\$324.06
Vendor 563 - John Carrillo									
03/06/2023	Anthem Reimb 03/01/2023-03/31/2023	Paid by Check #40844		03/06/2023	03/17/2023	03/17/2023		03/17/2023	205.88
		Vendor	563 - John Carrillo Totals			Invoices		1	\$205.88
Vendor 381 - Cen Cal Distributing Inc.									
300572	02/01/2023 water delivery charge	Paid by Check #40845		02/28/2023	03/17/2023	03/17/2023		03/17/2023	4.95
300573	02/02/2023 water delivery	Paid by Check #40845		02/28/2023	03/17/2023	03/17/2023		03/17/2023	95.00
302066	02/24/2023 water delivery	Paid by Check #40845		02/28/2023	03/17/2023	03/17/2023		03/17/2023	47.50
		Vendor	381 - Cen Cal Distributing Inc. Totals			Invoices		3	\$147.45
Vendor 333 - Cintas Corporation No. 2									
4145262547	Contractual	Paid by Check #40846		02/01/2023	03/17/2023	03/17/2023		03/17/2023	259.36
4145262560	Contractual	Paid by Check #40846		02/01/2023	03/17/2023	03/17/2023		03/17/2023	105.88
4145262563	Contractual	Paid by Check #40846		02/01/2023	03/17/2023	03/17/2023		03/17/2023	66.68
4145262775	Contractual	Paid by Check #40846		02/01/2023	03/17/2023	03/17/2023		03/17/2023	231.42
4145425814	Contractual	Paid by Check #40846		02/02/2023	03/17/2023	03/17/2023		03/17/2023	142.87
4145425826	Contractual	Paid by Check #40846		02/02/2023	03/17/2023	03/17/2023		03/17/2023	166.50
4145426030	Contractual	Paid by Check #40846		02/02/2023	03/17/2023	03/17/2023		03/17/2023	801.12
4146013381	Contractual	Paid by Check #40846		02/08/2023	03/17/2023	03/17/2023		03/17/2023	269.16
4146013448	Contractual	Paid by Check #40846		02/08/2023	03/17/2023	03/17/2023		03/17/2023	208.29
4146013452	Contractual	Paid by Check #40846		02/08/2023	03/17/2023	03/17/2023		03/17/2023	24.33
4146013462	Contractual	Paid by Check #40846		02/08/2023	03/17/2023	03/17/2023		03/17/2023	102.83
4146013463	Contractual	Paid by Check #40846		02/08/2023	03/17/2023	03/17/2023		03/17/2023	106.49
4146013472	Contractual	Paid by Check #40846		02/08/2023	03/17/2023	03/17/2023		03/17/2023	182.55
4146153539	Contractual	Paid by Check #40846		02/09/2023	03/17/2023	03/17/2023		03/17/2023	123.61
4146153607	Contractual	Paid by Check #40846		02/09/2023	03/17/2023	03/17/2023		03/17/2023	166.92
4146153701	Contractual	Paid by Check #40846		02/09/2023	03/17/2023	03/17/2023		03/17/2023	723.69
4146673013	Contractual	Paid by Check #40846		02/15/2023	03/17/2023	03/17/2023		03/17/2023	247.55
4146673014	Contractual	Paid by Check #40846		02/15/2023	03/17/2023	03/17/2023		03/17/2023	47.88
4146673063	Contractual	Paid by Check #40846		02/15/2023	03/17/2023	03/17/2023		03/17/2023	133.60



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4146673312	Contractual	Paid by Check #40846		02/15/2023	03/17/2023	03/17/2023		03/17/2023	230.32
4146835173	Contractual	Paid by Check #40846		02/15/2023	03/17/2023	03/17/2023		03/17/2023	166.50
4146835129	Contractual	Paid by Check #40846		02/16/2023	03/17/2023	03/17/2023		03/17/2023	123.61
4146835474	Contractual	Paid by Check #40846		02/16/2023	03/17/2023	03/17/2023		03/17/2023	932.52
1903745278	Contractual	Paid by Check #40846		02/22/2023	03/17/2023	03/17/2023		03/17/2023	85.00
4147357191	Contractual	Paid by Check #40846		02/22/2023	03/17/2023	03/17/2023		03/17/2023	109.57
4147357197	Contractual	Paid by Check #40846		02/22/2023	03/17/2023	03/17/2023		03/17/2023	269.16
4147357223	Contractual	Paid by Check #40846		02/22/2023	03/17/2023	03/17/2023		03/17/2023	24.33
4147357247	Contractual	Paid by Check #40846		02/22/2023	03/17/2023	03/17/2023		03/17/2023	105.88
4147357248	Contractual	Paid by Check #40846		02/22/2023	03/17/2023	03/17/2023		03/17/2023	181.72
4147357583	Contractual	Paid by Check #40846		02/23/2023	03/17/2023	03/17/2023		03/17/2023	208.08
4147533492	Contractual	Paid by Check #40846		02/23/2023	03/17/2023	03/17/2023		03/17/2023	123.61
4147533503	Contractual	Paid by Check #40846		02/23/2023	03/17/2023	03/17/2023		03/17/2023	166.50
4147533710	Contractual	Paid by Check #40846		02/23/2023	03/17/2023	03/17/2023		03/17/2023	986.14
1903764994	Contractual	Paid by Check #40846		02/28/2023	03/17/2023	03/17/2023		03/17/2023	86.39
Vendor 333 - Cintas Corporation No. 2 Totals							Invoices	34	\$7,910.06
Vendor 239 - City of Fresno									
20000981	PD - Gabriel Loreda / Perishable Skills Program	Paid by Check #40847		10/24/2022	03/17/2023	03/17/2023		03/17/2023	621.00
20000982	PD - Keri Babcock / Perishable Skills Program	Paid by Check #40847		10/24/2022	03/17/2023	03/17/2023		03/17/2023	621.00
Vendor 239 - City of Fresno Totals							Invoices	2	\$1,242.00
Vendor 240 - Clean Cut Landscape Management Inc.									
4031	Monthly Landscaping February 2023	Paid by Check #40848		02/28/2023	03/17/2023	03/17/2023		03/17/2023	19,163.00
Vendor 240 - Clean Cut Landscape Management Inc. Totals							Invoices	1	\$19,163.00
Vendor 1419 - Collins & Schoettler Planning Consultant, Inc.									
1374	Zoning Ordinance Update February 2023	Paid by Check #40849		03/06/2023	03/17/2023	03/17/2023		03/17/2023	1,380.00
Vendor 1419 - Collins & Schoettler Planning Consultant, Inc. Totals							Invoices	1	\$1,380.00
Vendor 170 - Comcast									
0135597	03/02/23 405 E El Monte Way 03/04/23-04/03/23	Paid by Check #40850		03/02/2023	03/17/2023	03/17/2023		03/17/2023	69.54
0160181	03/07/23 1088 E KAMM AVE 03/11/23-04/10/23	Paid by Check #40851		03/07/2023	03/17/2023	03/17/2023		03/17/2023	32.20
Vendor 170 - Comcast Totals							Invoices	2	\$101.74
Vendor 1582 - Dell Financial Services LLC									
2480492	SERVER 04/01/23-04/30/23	Paid by Check #40852		03/02/2023	03/17/2023	03/17/2023		03/17/2023	2,947.71
Vendor 1582 - Dell Financial Services LLC Totals							Invoices	1	\$2,947.71



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Invoice Number	Invoice Description	Status	Held Reason	Invoice Date	Due Date	G/L Date	Received Date	Payment Date	Invoice Net Amount
Vendor 77 - Department of Justice									
644674	PD - February 2023 Blood Alcohol Analysis	Paid by Check #40853		03/06/2023	03/17/2023	03/17/2023		03/17/2023	105.00
Vendor 77 - Department of Justice Totals							Invoices	1	\$105.00
Vendor 200 - Dinuba Unified School District									
1785	DSC Senior Monthly Lunches- FEB 2023	Paid by Check #40854		03/01/2023	03/17/2023	03/17/2023		03/17/2023	5,555.00
Vendor 200 - Dinuba Unified School District Totals							Invoices	1	\$5,555.00
Vendor 1506 - Enterprise FM Trust									
FBN4694597	Fy 22/23-Parks-Leased vehicles	Paid by Check #40855		03/03/2023	03/17/2023	03/17/2023	03/13/2023	03/17/2023	1,802.72
Vendor 1506 - Enterprise FM Trust Totals							Invoices	1	\$1,802.72
Vendor 280 - Entersect									
223EP31191	PD - February 2023 Service	Paid by Check #40856		02/28/2023	03/17/2023	03/17/2023		03/17/2023	100.00
Vendor 280 - Entersect Totals							Invoices	1	\$100.00
Vendor 16 - Ernest Packaging Solutions									
90715224	Fy 22/23-Parks-Janitorial supplies	Paid by Check #40857		03/01/2023	03/17/2023	03/17/2023	03/08/2023	03/17/2023	1,166.50
90716483	Fy 22/23-Parks-Janitorial supplies	Paid by Check #40857		03/03/2023	03/17/2023	03/17/2023	03/08/2023	03/17/2023	64.86
Vendor 16 - Ernest Packaging Solutions Totals							Invoices	2	\$1,231.36
Vendor 588 - Lorena Gamboa									
01/23/2023	Travel Exp ABC 360 Ambulance Billing Conf 03/07/23-03/09/23	Paid by Check #40858		01/23/2023	03/17/2023	03/17/2023		03/17/2023	129.00
Vendor 588 - Lorena Gamboa Totals							Invoices	1	\$129.00
Vendor 1801 - Garda CL West, INC									
20560219	SERVICE MONTH FEBRUARY 2023	Paid by Check #40859		02/28/2023	03/17/2023	03/17/2023		03/17/2023	9.81
Vendor 1801 - Garda CL West, INC Totals							Invoices	1	\$9.81
Vendor 18 - The Gas Company									
0990155800803/23	405 E El Monte Way 02/02/23-03/06/23	Paid by Check #40860		03/08/2023	03/17/2023	03/17/2023		03/17/2023	897.90
1263155600303/23	DSC GAS 02/02-03/06/23	Paid by Check #40861		03/08/2023	03/17/2023	03/17/2023		03/17/2023	748.97
1830985449703/23	PD - 02/02/2023 - 03/06/2023 Billing Charges	Paid by Check #40863		03/08/2023	03/17/2023	03/17/2023		03/17/2023	294.87
0865742471203/23	1088 E KAMM AVE NGV 02/01/23-03/01/23	Paid by Check #40864		03/07/2023	03/17/2023	03/17/2023		03/17/2023	7,673.97
1641156700703/23	110 S COLLEGE AVE 02/02/23-03/06/23	Paid by Check #40862		03/08/2023	03/17/2023	03/17/2023		03/17/2023	56.30
168351381873/23	180 W Merced STE A	Paid by Check #40865		03/08/2023	03/17/2023	03/17/2023		03/17/2023	311.02
Vendor 18 - The Gas Company Totals							Invoices	6	\$9,983.03
Vendor 712 - GLS US									



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4973104	POSTAGE	Paid by Check #40866		03/05/2023	03/17/2023	03/17/2023		03/17/2023	14.08
			Vendor 712 - GLS US Totals			Invoices	1		\$14.08
Vendor 1914 - Donny Goldberg									
021523	Fy 22/23-SE-Ent band (Surfs Up) for 6/2/23 event	Paid by Check #40867		02/15/2023	03/17/2023	03/17/2023	03/07/2023	03/17/2023	1,000.00
			Vendor 1914 - Donny Goldberg Totals			Invoices	1		\$1,000.00
Vendor 1328 - Ken Grover									
03/06/2023	Anthem Reimb 11/01/2022-02/28/2023	Paid by Check #40868		03/06/2023	03/17/2023	03/17/2023		03/17/2023	1,387.36
			Vendor 1328 - Ken Grover Totals			Invoices	1		\$1,387.36
Vendor 1828 - Heet Trucking, LLC									
10981	Loan #1168690-San Joaquin to Dinuba	Paid by Check #40869		03/13/2023	03/17/2023	03/17/2023		03/17/2023	600.00
			Vendor 1828 - Heet Trucking, LLC Totals			Invoices	1		\$600.00
Vendor 174 - Howard's Pest Control									
111967	Fy 22/23-Parks-Pest control service @ Vuich park	Paid by Check #40870		03/06/2023	03/17/2023	03/17/2023	03/06/2023	03/17/2023	75.00
			Vendor 174 - Howard's Pest Control Totals			Invoices	1		\$75.00
Vendor 1403 - Kings Industrial Occupational Medical Center, Inc.									
178762	SERVICE MONTH JANUARY 2023	Paid by Check #40871		02/14/2023	03/17/2023	03/17/2023		03/17/2023	270.00
			Vendor 1403 - Kings Industrial Occupational Medical Center, Inc. Totals			Invoices	1		\$270.00
Vendor 449 - Les Schwab Tire Centers of Central California									
55100305316	Les Unit DS 2	Paid by Check #40872		03/03/2023	03/17/2023	03/17/2023		03/17/2023	884.25
55100305620	Le Schwab unit PD 3	Paid by Check #40872		03/07/2023	03/17/2023	03/17/2023		03/17/2023	767.07
			Vendor 449 - Les Schwab Tire Centers of Central California Totals			Invoices	2		\$1,651.32
Vendor 801 - LexisNexis Mathew Bender									
35673842	CA DEER MILITARY & VETERANS 1-E 2023 SUPP	Paid by Check #40873		01/20/2023	03/17/2023	03/17/2023		03/17/2023	123.08
			Vendor 801 - LexisNexis Mathew Bender Totals			Invoices	1		\$123.08
Vendor 160 - Mid Valley Publishing Inc.									
0327630-IN	Map 2021-01	Paid by Check #40874		02/23/2023	03/17/2023	03/17/2023		03/17/2023	384.00
			Vendor 160 - Mid Valley Publishing Inc. Totals			Invoices	1		\$384.00
Vendor 589 - Rosa Montanez									
03/06/2023	Anthem Reimb 03/01/2023-03/31/2023	Paid by Check #40875		03/06/2023	03/17/2023	03/17/2023		03/17/2023	258.06
			Vendor 589 - Rosa Montanez Totals			Invoices	1		\$258.06



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Vendor 22 - Moore Twining Associates Inc.									
3366070	Moore WWTP Industrial	Paid by Check #40876		01/25/2023	03/17/2023	03/17/2023		03/17/2023	88.00
3366071	Moore WWTP In House	Paid by Check #40876		01/25/2023	03/17/2023	03/17/2023		03/17/2023	115.00
3366966	Moore WWTP Industrial	Paid by Check #40876		02/16/2023	03/17/2023	03/17/2023		03/17/2023	88.00
3367165	Moore Biosolids Monitoring	Paid by Check #40876		02/22/2023	03/17/2023	03/17/2023		03/17/2023	1,160.00
3367428	Moore WWTP Industrial	Paid by Check #40876		02/27/2023	03/17/2023	03/17/2023		03/17/2023	88.00
3367596	Moore WWTP Industrial	Paid by Check #40876		03/02/2023	03/17/2023	03/17/2023		03/17/2023	88.00
3367597	Moore WWTP In House	Paid by Check #40876		03/02/2023	03/17/2023	03/17/2023		03/17/2023	115.00
3367598	Moore WWTP Industrial	Paid by Check #40876		03/02/2023	03/17/2023	03/17/2023		03/17/2023	88.00
3367661	Moore WWTP Industrial	Paid by Check #40876		03/03/2023	03/17/2023	03/17/2023		03/17/2023	88.00
3367956	Moore WWTP Industrial	Paid by Check #40876		03/09/2023	03/17/2023	03/17/2023		03/17/2023	88.00
3367989	Moore WWTP Industrial	Paid by Check #40876		03/10/2023	03/17/2023	03/17/2023		03/17/2023	88.00
Vendor 22 - Moore Twining Associates Inc. Totals							Invoices	11	\$2,094.00
Vendor 1570 - Mountain Valley Environmental Services, Inc.									
4155	Mountain Valley Environmental Services	Paid by Check #40877		03/01/2023	03/17/2023	03/17/2023		03/17/2023	4,871.70
Vendor 1570 - Mountain Valley Environmental Services, Inc. Totals							Invoices	1	\$4,871.70
Vendor 142 - Office Depot BSD									
294730407001	Fy 22/23-Office supplies	Paid by Check #40878		02/24/2023	03/17/2023	03/17/2023	03/10/2023	03/17/2023	121.40
293260762001	Office Supplies - Office Depot	Paid by Check #40878		02/24/2023	03/17/2023	03/17/2023		03/17/2023	116.44
293260908001	Office Supplies - Office Depot	Paid by Check #40878		02/24/2023	03/17/2023	03/17/2023		03/17/2023	39.05
Vendor 142 - Office Depot BSD Totals							Invoices	3	\$276.89
Vendor 1708 - James Olvera									
03/14/2023	Anthem Reimb 03/01/2023-03/31/2023	Paid by Check #40879		03/14/2023	03/17/2023	03/17/2023		03/17/2023	251.74
Vendor 1708 - James Olvera Totals							Invoices	1	\$251.74
Vendor 1773 - Pace Supply Corp.									
198356976-1	Pace Supply	Paid by Check #40880		02/24/2023	03/17/2023	03/17/2023		03/17/2023	27.99
Vendor 1773 - Pace Supply Corp. Totals							Invoices	1	\$27.99
Vendor 76 - Pacific Gas & Electric									
4979039280403/23	DSC PG&E 1/26-2/26/23	Paid by Check #40881		02/27/2023	03/17/2023	03/17/2023		03/17/2023	1,001.91
9237058126303/23	2813 W EL MONTE WAY 01/30/23-02/28/23	Paid by Check #40882		03/05/2023	03/17/2023	03/17/2023		03/17/2023	12.85
Vendor 76 - Pacific Gas & Electric Totals							Invoices	2	\$1,014.76
Vendor 7 - Pena's Disposal Services									
3/23 for 2/23	March 2023 Monthly Disposal Charges for Feb. 2023	Paid by Check #40883		03/14/2023	03/17/2023	03/17/2023		03/17/2023	137,595.68
April 2023	April 2023 Contract Disposal Payment	Paid by Check #40883		04/01/2023	03/17/2023	03/17/2023		03/17/2023	60,000.00



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Invoice Number	Invoice Description	Status	Held Reason	Invoice Date	Due Date	G/L Date	Received Date	Payment Date	Invoice Net Amount
722753	Mattress Charges pickup various locations	Paid by Check #40883		03/01/2023	03/17/2023	03/17/2023		03/17/2023	325.00
Vendor 7 - Pena's Disposal Services Totals								Invoices 3	\$197,920.68
Vendor 968 - Quic Shop Markets, Inc.									
10587	Quic Shop Car wash	Paid by Check #40884		03/02/2023	03/17/2023	03/17/2023		03/17/2023	8.00
Vendor 968 - Quic Shop Markets, Inc. Totals								Invoices 1	\$8.00
Vendor 124 - Reedley Veterinary Hospital									
112	PD - Vet & February Disposal Fees	Paid by Check #40885		02/28/2023	03/17/2023	03/17/2023		03/17/2023	989.00
Vendor 124 - Reedley Veterinary Hospital Totals								Invoices 1	\$989.00
Vendor 800 - San Joaquin Valley Railroad Co.									
196006	San Joaquin Valley Railroad	Paid by Check #40886		03/01/2023	03/17/2023	03/17/2023		03/17/2023	2,535.80
Vendor 800 - San Joaquin Valley Railroad Co. Totals								Invoices 1	\$2,535.80
Vendor 42 - Scout Specialties									
164026	Scout Specialty	Paid by Check #40887		02/28/2023	03/17/2023	03/17/2023		03/17/2023	11.28
Vendor 42 - Scout Specialties Totals								Invoices 1	\$11.28
Vendor 46 - Self Help Enterprises									
DINSP02-23	Rent & Tenancy Limitation Release-Lumbreras #3720	Paid by Check #40888		03/03/2023	03/17/2023	03/17/2023		03/17/2023	125.00
Vendor 46 - Self Help Enterprises Totals								Invoices 1	\$125.00
Vendor 61 - Silvas Oil Company Inc.									
618622	Silvas WWTP	Paid by Check #40889		03/08/2023	03/17/2023	03/17/2023		03/17/2023	2,049.43
Vendor 61 - Silvas Oil Company Inc. Totals								Invoices 1	\$2,049.43
Vendor 1691 - Silver & Wright LLP									
31265	740 Harvard - Services for February 2023	Paid by Check #40890		03/01/2023	03/17/2023	03/17/2023		03/17/2023	756.00
Vendor 1691 - Silver & Wright LLP Totals								Invoices 1	\$756.00
Vendor 361 - SJVAPCD									
S169263	SJVAPCD Wastewater 6675 Ave 412	Paid by Check #40891		03/02/2023	03/17/2023	03/17/2023		03/17/2023	965.00
S169467	SJVAPCD Euclid Ave	Paid by Check #40891		03/02/2023	03/17/2023	03/17/2023		03/17/2023	290.00
Vendor 361 - SJVAPCD Totals								Invoices 2	\$1,255.00
Vendor 1396 - Social Vocational Services, Inc.									
40B2304-IN	Fy 22/23-Parks-Grounds Maint for Feb, 2023	Paid by Check #40892		02/28/2023	03/17/2023	03/17/2023	03/10/2023	03/17/2023	1,753.65
Vendor 1396 - Social Vocational Services, Inc. Totals								Invoices 1	\$1,753.65
Vendor 1908 - Spirit in Print									



Accounts Payable Invoice Report

Payment Date Range 03/11/23 - 03/17/23
Report By Vendor - Invoice
Summary Listing

Invoice Number	Invoice Description	Status	Held Reason	Invoice Date	Due Date	G/L Date	Received Date	Payment Date	Invoice Net Amount
23-21410	Fy 22/23-Sportsplex-Table cloth with sportsplex logo	Paid by Check #40893		03/06/2023	03/17/2023	03/17/2023	03/07/2023	03/17/2023	43.40
			Vendor 1908 - Spirit in Print	Totals			Invoices	1	\$43.40
Vendor 189 - Terminix International									
430610722	CH-405 E EL MONTE WAY 02/03/2023	Paid by Check #40894		02/03/2023	03/17/2023	03/17/2023		03/17/2023	70.00
430629686	Fy 22/23-CS-Pest control service for rec center	Paid by Check #40894		02/15/2023	03/17/2023	03/17/2023	03/13/2023	03/17/2023	79.00
			Vendor 189 - Terminix International	Totals			Invoices	2	\$149.00
Vendor 1062 - The Sherwin-Williams Co.									
8544-0	Supplies	Paid by Check #40895		01/06/2023	03/17/2023	03/17/2023		03/17/2023	1,285.04
			Vendor 1062 - The Sherwin-Williams Co.	Totals			Invoices	1	\$1,285.04
Vendor 1626 - The Water Connection, Inc.									
Zuniga 4/20	The water connection Zuniga	Paid by Check #40896		03/03/2023	03/17/2023	03/17/2023		03/17/2023	225.00
			Vendor 1626 - The Water Connection, Inc.	Totals			Invoices	1	\$225.00
Vendor 1304 - TJKM									
0053807	TJKM Roadway Segment Safety Impr. Design	Paid by Check #40897		02/28/2023	03/17/2023	03/17/2023		03/17/2023	133.27
			Vendor 1304 - TJKM	Totals			Invoices	1	\$133.27
Vendor 311 - Top Dog Training Center									
1672	PD - K9 Enzo / Maintenance Training	Paid by Check #40898		03/11/2023	03/17/2023	03/17/2023		03/17/2023	90.00
			Vendor 311 - Top Dog Training Center	Totals			Invoices	1	\$90.00
Vendor 1633 - Toyota Industries Commercial Finance, Inc.									
4003749092	Polaris Lease Payment	Paid by Check #40899		02/24/2023	03/17/2023	03/17/2023		03/17/2023	296.74
			Vendor 1633 - Toyota Industries Commercial Finance, Inc.	Totals			Invoices	1	\$296.74
Vendor 902 - Tractor Supply Credit Plan									
9564 02/27/2023	PD - K-9 food/supplies	Paid by Check #40900		02/27/2023	03/17/2023	03/17/2023		03/17/2023	893.29
			Vendor 902 - Tractor Supply Credit Plan	Totals			Invoices	1	\$893.29
Vendor 658 - Eric Trevino									
SANDIEGO032023	PD - POST MGMT Course - San Diego, CA Per Diem	Paid by Check #40901		02/14/2023	03/17/2023	03/17/2023		03/17/2023	349.00
			Vendor 658 - Eric Trevino	Totals			Invoices	1	\$349.00
Vendor 49 - Tulare County									
IN0204160B	PENALTY FEES	Paid by Check #40902		11/07/2022	03/17/2023	03/17/2023		03/17/2023	20.10
23NOV35	November 2022 General Elections	Paid by Check #40903		03/08/2023	03/17/2023	03/17/2023		03/17/2023	2,374.47
23NOV36	November 2022 General Elections	Paid by Check #40903		03/08/2023	03/17/2023	03/17/2023		03/17/2023	2,922.67



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Invoice Number	Invoice Description	Status	Held Reason	Invoice Date	Due Date	G/L Date	Received Date	Payment Date	Invoice Net Amount
23NOV37	November 2022 General Elections	Paid by Check #40903		03/08/2023	03/17/2023	03/17/2023			3,202.79
			Vendor 49 - Tulare County Totals			Invoices	4		\$8,520.03
Vendor 273 - US Bank									
6839154	Successor Agency TARB 2017	Paid by Check #40904		02/24/2023	03/17/2023	03/17/2023		03/17/2023	2,700.00
8693601312308	PW Fuel for February 2023	Paid by Check #40905		02/24/2023	03/17/2023	03/17/2023		03/17/2023	1,123.40
			Vendor 273 - US Bank Totals			Invoices	2		\$3,823.40
Vendor 201 - Valley Farm Services, Inc.									
26616	Masticate Pond on 416/62	Paid by Check #40906		02/17/2023	03/17/2023	03/17/2023		03/17/2023	350.00
			Vendor 201 - Valley Farm Services, Inc. Totals			Invoices	1		\$350.00
Vendor 1444 - Video Inspection Specialists, Inc.									
8388	Clean and inspect app 120LF SS South of El Monte Way	Paid by Check #40907		11/21/2022	03/17/2023	03/17/2023		03/17/2023	1,500.00
			Vendor 1444 - Video Inspection Specialists, Inc. Totals			Invoices	1		\$1,500.00
Vendor 403 - Visalia Times-Delta									
TD0054706 03/23	PD - March 2023 Service	Paid by Check #40908		03/01/2023	03/17/2023	03/17/2023		03/17/2023	35.00
			Vendor 403 - Visalia Times-Delta Totals			Invoices	1		\$35.00
Vendor 820 - Vulcan Materials Company									
73570742	Vulcan	Paid by Check #40909		03/03/2023	03/17/2023	03/17/2023		03/17/2023	382.10
			Vendor 820 - Vulcan Materials Company Totals			Invoices	1		\$382.10
Vendor 14 - W & E Electric									
2301156	W&E headworks	Paid by Check #40910		02/03/2023	03/17/2023	03/17/2023		03/17/2023	150.00
2302060	W&E Supplies	Paid by Check #40910		02/13/2023	03/17/2023	03/17/2023		03/17/2023	909.49
			Vendor 14 - W & E Electric Totals			Invoices	2		\$1,059.49
			Grand Totals			Invoices	143		\$346,873.31



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Invoice Number	Invoice Description	Status	Held Reason	Invoice Date	Due Date	G/L Date	Received Date	Payment Date	Invoice Net Amount
Vendor 72 - A-C Electric Company									
58918	COMMISSION HEAD WORK VFD& CHECK ATS UPS	No Need		03/15/2023	04/14/2023	03/24/2023			728.00
Vendor 72 - A-C Electric Company Totals							Invoices	1	\$728.00
Vendor 263 - Advantek Benefit Administrators									
2303-0011	March 2023	Paid by Check #40911		03/01/2023	03/24/2023	03/24/2023		03/24/2023	71,032.54
03/17/2023	03/17/2023	Paid by Check #40911		03/17/2023	03/24/2023	03/24/2023		03/24/2023	14,880.34
Vendor 263 - Advantek Benefit Administrators Totals							Invoices	2	\$85,912.88
Vendor 1229 - Sergio Armando Alvarado									
030723 ALVARADO	PC MEETING MARCH 7, 2023	Paid by Check #40912		03/07/2023	03/24/2023	03/24/2023		03/24/2023	25.00
Vendor 1229 - Sergio Armando Alvarado Totals							Invoices	1	\$25.00
Vendor 416 - Amber Chemical Inc.									
0377163-IN	Amber Chemical	Paid by Check #40913		03/13/2023	03/24/2023	03/24/2023		03/24/2023	1,510.96
Vendor 416 - Amber Chemical Inc. Totals							Invoices	1	\$1,510.96
Vendor 119 - American Backflow Specialties									
INV61887	American backflow Wilkins 720A 1 1/2"	Paid by Check #40914		03/08/2023	03/24/2023	03/24/2023		03/24/2023	706.43
Vendor 119 - American Backflow Specialties Totals							Invoices	1	\$706.43
Vendor 55 - American Water Works Association									
Medina-Kingsburg	Medina Kingsburg Training 04/21/2023	Paid by Check #40916		03/03/2023	03/24/2023	03/24/2023		03/24/2023	285.00
Zuniga-Kingsburg	Zuniga Kingsburg Training 04/21/2023	Paid by Check #40915		03/03/2023	03/24/2023	03/24/2023		03/24/2023	285.00
Vendor 55 - American Water Works Association Totals							Invoices	2	\$570.00
Vendor 351 - Anthem Blue Cross									
000274876863	RAMIREZ 010W01865 04/01/23- 04/30/23	Paid by Check #40917		03/04/2023	03/24/2023	03/24/2023		03/24/2023	94.50
000274893380	MEDDERS 975A79192 04/01/23- 04/30/23	Paid by Check #40918		03/04/2023	03/24/2023	03/24/2023		03/24/2023	94.50
000274893541	HARTLEY 919M97599 04/01/23- 04/30/23	Paid by Check #40919		03/04/2023	03/24/2023	03/24/2023		03/24/2023	2.50
000274896432	SANO 060M86753 04/01/23- 04/30/23	Paid by Check #40927		03/04/2023	03/24/2023	03/24/2023		03/24/2023	107.50
000274901705	MAGYAR 792A24403 04/01/23- 04/30/23	Paid by Check #40920		03/04/2023	03/24/2023	03/24/2023		03/24/2023	90.60
000274904099	HARMAN 532W04713 04/01/23- 04/30/23	Paid by Check #40926		03/04/2023	03/24/2023	03/24/2023		03/24/2023	94.50
000274906758	TYLER 299A24237 04/01/23- 04/30/23	Paid by Check #40921		03/04/2023	03/24/2023	03/24/2023		03/24/2023	90.60



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000276394926	TYLER 141A75193 04/01/23-04/30/23	Paid by Check #40922		03/07/2023	03/24/2023	03/24/2023		03/24/2023	256.76	
000276417404	HARTLEY 925M97595 04/01/23-04/30/23	Paid by Check #40923		03/07/2023	03/24/2023	03/24/2023		03/24/2023	257.10	
000276428862	RAMIREZ 992W01856 04/01/23-04/30/23	Paid by Check #40924		03/07/2023	03/24/2023	03/24/2023		03/24/2023	197.85	
000733265E	Billing 04/01/2023-05/01/2023	Paid by Check #40925		03/14/2023	03/24/2023	03/24/2023		03/24/2023	529.63	
Vendor			351 - Anthem Blue Cross	Totals			Invoices	11	\$1,816.04	
Vendor 21 - Aramark Uniform Services Inc.										
5031161192	Fy 22/23-Parks-Uniforms for week of 3/15/23	Paid by Check #40928		03/15/2023	03/24/2023	03/24/2023	03/15/2023	03/24/2023	73.78	
Vendor			21 - Aramark Uniform Services Inc.	Totals			Invoices	1	\$73.78	
Vendor 17 - AT&T										
238451821403/23	405 E El Monte Way 03/07/23-04/06/23	Paid by Check #40935		03/07/2023	03/24/2023	03/24/2023		03/24/2023	69.11	
9391054470 3/23	3/10/2023	Paid by Check #40931		03/11/2023	03/24/2023	03/24/2023		03/24/2023	24.49	
9391054471 3/23	3/10/2023	Paid by Check #40932		03/11/2023	03/24/2023	03/24/2023		03/24/2023	24.49	
9391054479 3/23	3/10/2023	Paid by Check #40930		03/11/2023	03/24/2023	03/24/2023		03/24/2023	24.49	
9391054742 3/23	3/10/2023	Paid by Check #40929		03/11/2023	03/24/2023	03/24/2023		03/24/2023	114.40	
9391054469 03/23	PD - 02/11/2023 - 03/10/2023 Billing Charges	Paid by Check #40934		03/11/2023	03/24/2023	03/24/2023		03/24/2023	22.82	
9391054740 03/23	PD - 02/11/2023 - 03/10/2023 Billing Charges	Paid by Check #40933		03/11/2023	03/24/2023	03/24/2023		03/24/2023	275.96	
			Vendor	17 - AT&T	Totals			Invoices	7	\$555.76
Vendor 1103 - Bauer Compressors, Inc.										
0000304823	Annual Maintenance	Paid by Check #40936		03/15/2023	03/24/2023	03/24/2023		03/24/2023	2,760.00	
			Vendor	1103 - Bauer Compressors, Inc.	Totals			Invoices	1	\$2,760.00
Vendor 822 - Boundtree Medical LLC										
84883569	Supplies	Paid by Check #40937		03/08/2023	03/24/2023	03/24/2023		03/24/2023	418.10	
84887958	Supplies	Paid by Check #40937		03/13/2023	03/24/2023	03/24/2023		03/24/2023	168.19	
84889537	Supplies	Paid by Check #40937		03/14/2023	03/24/2023	03/24/2023		03/24/2023	70.41	
			Vendor	822 - Boundtree Medical LLC	Totals			Invoices	3	\$656.70
Vendor 1192 - California Industrial Rubber Co.										
F-088355	CIR materials	Paid by Check #40938		03/13/2023	03/24/2023	03/24/2023		03/24/2023	3,185.19	
F-088356	CIR materials	Paid by Check #40938		03/13/2023	03/24/2023	03/24/2023		03/24/2023	6,099.76	
			Vendor	1192 - California Industrial Rubber Co.	Totals			Invoices	2	\$9,284.95
Vendor 94 - California Public Employees Retirement										
2/26-3/11/23	02/26/23-03/11/23	Paid by EFT #2358		03/17/2023	03/20/2023	03/20/2023		03/20/2023	82,764.57	
2023-00000322	31 - 457 - Employee CalPERS \$*	Paid by EFT #2357		03/17/2023	03/20/2023	03/20/2023		03/20/2023	9,324.51	



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Vendor 94 - California Public Employees Retirement Totals				Invoices			2		\$92,089.08
Vendor 305 - Cartozian Air Conditioning and Heating Inc.									
BP8651B	Cartozian 2nd 1/2 - Final Payment Police Dept HVAC	Paid by Check #40939		02/15/2023	03/24/2023	03/24/2023		03/24/2023	5,750.00
Vendor 305 - Cartozian Air Conditioning and Heating Inc. Totals				Invoices			1		\$5,750.00
Vendor 1812 - Ruben Castaneda									
CPRS 2023	Fy 22/23-Per diem for CPRS conf 4/3-4/6	Paid by Check #40940		03/09/2023	03/24/2023	03/24/2023	03/09/2023	03/24/2023	204.00
Vendor 1812 - Ruben Castaneda Totals				Invoices			1		\$204.00
Vendor 246 - Central San Joaquin Valley Risk Management Auth.									
RMA 2023-00207	2022/2023 4th QUARTER DEPOSITS	Paid by Check #40941		03/17/2023	03/24/2023	03/24/2023		03/24/2023	361,896.00
Vendor 246 - Central San Joaquin Valley Risk Management Auth. Totals				Invoices			1		\$361,896.00
Vendor 333 - Cintas Corporation No. 2									
5149895759	Fy 22/23-CS-service /supplies for medicine cabinet	Paid by Check #40942		03/16/2023	03/24/2023	03/24/2023	03/17/2023	03/24/2023	77.63
Vendor 333 - Cintas Corporation No. 2 Totals				Invoices			1		\$77.63
Vendor 972 - City of Sanger									
IGT62 - Dinuba	February 2023	Paid by Check #40943		03/16/2023	03/24/2023	03/24/2023		03/24/2023	214.90
Vendor 972 - City of Sanger Totals				Invoices			1		\$214.90
Vendor 1419 - Collins & Schoettler Planning Consultant, Inc.									
1373	Collins Schoettler Planning Support	Paid by Check #40944		03/06/2023	03/24/2023	03/24/2023		03/24/2023	9,390.00
Vendor 1419 - Collins & Schoettler Planning Consultant, Inc. Totals				Invoices			1		\$9,390.00
Vendor 170 - Comcast									
0148160 03/11/23	1390 E ELIZABETH WAY OFC 03/16/23-04/15/23	Paid by Check #40946		03/11/2023	03/24/2023	03/24/2023		03/24/2023	258.75
0148178 03/12/23	680 S ALTA AVE OFC 03/17/23- 04/16/23	Paid by Check #40945		03/12/2023	03/24/2023	03/24/2023		03/24/2023	348.47
Vendor 170 - Comcast Totals				Invoices			2		\$607.22
Vendor 910 - Timothy S. Conklin									
030723 CONKLIN	PC MEETING MARCH 7, 2023	Paid by Check #40947		03/07/2023	03/24/2023	03/24/2023		03/24/2023	25.00
Vendor 910 - Timothy S. Conklin Totals				Invoices			1		\$25.00
Vendor 1473 - Country View Nursery									
3213	Sand Bags for flooding	Paid by Check #40948		03/09/2023	03/24/2023	03/24/2023		03/24/2023	65.04
3214	Sand Bags for flooding	Paid by Check #40948		03/17/2023	03/24/2023	03/24/2023		03/24/2023	1,362.10
Vendor 1473 - Country View Nursery Totals				Invoices			2		\$1,427.14



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Vendor 836 - Engie Services U.S. Inc.									
90051323	O&M FEES (Feb 2023-Jan 2024)	Paid by Check #40949		02/27/2023	03/24/2023	03/24/2023		03/24/2023	38,416.06
Vendor 836 - Engie Services U.S. Inc. Totals							Invoices	1	\$38,416.06
Vendor 1591 - Environment Control									
7384-299INV	Carpet Cleaning 405 E El Monte Way	Paid by Check #40950		02/28/2023	03/24/2023	03/24/2023		03/24/2023	725.00
18481-299	Environment Control Janitorial Service	Paid by Check #40950		03/01/2023	03/24/2023	03/24/2023		03/24/2023	8,977.51
Vendor 1591 - Environment Control Totals							Invoices	2	\$9,702.51
Vendor 1918 - Erene Soliman, Psychologist Inc									
March 2023	PD - Psychological Evaluation - A. Hinojosa	Paid by Check #40951		03/14/2023	03/24/2023	03/24/2023		03/24/2023	440.00
Vendor 1918 - Erene Soliman, Psychologist Inc Totals							Invoices	1	\$440.00
Vendor 36 - Ewing Irrigation Products									
18669229	FY22/23-Parks - Irrigation repair/maintenance- Roosevelt Park	Paid by Check #40952		02/09/2023	02/24/2023	02/24/2023	02/21/2023	03/24/2023	288.91
18710324	FY22/23-Parks-Irrigation repair/maint.-Roos.Park-Credit/return	Paid by Check #40952		02/16/2023	02/24/2023	02/24/2023	02/21/2023	03/24/2023	(288.91)
18876168	Fy 22/23-L&L-Irrigation supplies	Paid by Check #40952		03/15/2023	03/24/2023	03/24/2023	03/16/2023	03/24/2023	316.87
18876379	Fy 22/23-Parks supplies	Paid by Check #40952		03/15/2023	03/24/2023	03/24/2023	03/18/2023	03/24/2023	173.45
Vendor 36 - Ewing Irrigation Products Totals							Invoices	4	\$490.32
Vendor 1200 - Linda Faust									
030723 FAUST	PC MEETING MARCH 7, 2023	Paid by Check #40953		03/07/2023	03/24/2023	03/24/2023		03/24/2023	25.00
Vendor 1200 - Linda Faust Totals							Invoices	1	\$25.00
Vendor 1244 - Fire Apparatus Solutions									
25556	E-32 Repairs	Paid by Check #40954		03/10/2023	03/24/2023	03/24/2023		03/24/2023	4,569.07
Vendor 1244 - Fire Apparatus Solutions Totals							Invoices	1	\$4,569.07
Vendor 1504 - Fresno Roofing Company Inc.									
19884C	PD - Roof Leaks Repairs	Paid by Check #40955		03/09/2023	03/24/2023	03/24/2023		03/24/2023	943.34
Vendor 1504 - Fresno Roofing Company Inc. Totals							Invoices	1	\$943.34
Vendor 171 - Fruit Growers Supply Co.									
92367584	Bags for sand- flooding	Paid by Check #40956		03/07/2023	03/24/2023	03/24/2023		03/24/2023	212.66
92367586	Fy 22/23-Parks-nitrile gloves (12 pair)	Paid by Check #40956		03/07/2023	03/24/2023	03/24/2023	03/14/2023	03/24/2023	29.61
Vendor 171 - Fruit Growers Supply Co. Totals							Invoices	2	\$242.27
Vendor 588 - Lorena Gamboa									



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Invoice Number	Invoice Description	Status	Held Reason	Invoice Date	Due Date	G/L Date	Received Date	Payment Date	Invoice Net Amount
03/16/2023	Additional Exp ABC 360 Ambulance Billing Conf 03/07/23-03/09/23	Paid by Check #40957		03/16/2023	03/24/2023	03/24/2023		03/24/2023	64.89
			Vendor 588 - Lorena Gamboa Totals				Invoices	1	\$64.89
Vendor 18 - The Gas Company									
15571580420 3/23	March 2023	Paid by Check #40961		03/08/2023	03/24/2023	03/24/2023		03/24/2023	494.09
16201580004 3/23	March 2023	Paid by Check #40962		03/08/2023	03/24/2023	03/24/2023		03/24/2023	346.67
0486158404503/23	Sportsplex 201 N URUAPAN WAY 02/02/23-03/06/23	Paid by Check #40959		03/08/2023	03/24/2023	03/24/2023		03/24/2023	106.34
1620156700103/23	CS 1390 E ELIZABETH WAY 02/02/23-03/06/23	Paid by Check #40960		03/08/2023	03/24/2023	03/24/2023		03/24/2023	1,045.99
1285520359703/23	1088 E KAMM AVE 02/03/23-03/07/23	Paid by Check #40958		03/09/2023	03/24/2023	03/24/2023		03/24/2023	794.34
			Vendor 18 - The Gas Company Totals				Invoices	5	\$2,787.43
Vendor 712 - GLS US									
4978926	POSTAGE	Paid by Check #40963		03/12/2023	03/24/2023	03/24/2023		03/24/2023	16.04
			Vendor 712 - GLS US Totals				Invoices	1	\$16.04
Vendor 605 - Frank Guerra									
March 2023	Anthem Reimb 03/01/2023-03/31/2023	Paid by Check #40964		03/14/2023	03/24/2023	03/24/2023		03/24/2023	245.64
			Vendor 605 - Frank Guerra Totals				Invoices	1	\$245.64
Vendor 496 - The Hanover Insurance Company									
03/07/2023	RHF A044134 07/01/2022-07/01/2023	Paid by Check #40965		03/07/2023	03/24/2023	03/24/2023		03/24/2023	12,937.80
			Vendor 496 - The Hanover Insurance Company Totals				Invoices	1	\$12,937.80
Vendor 1431 - Patricia Hartman									
April 2023	Anthem Reimb 04/01/2023-04/30/2023	Paid by Check #40966		03/17/2023	03/24/2023	03/24/2023		03/24/2023	94.50
			Vendor 1431 - Patricia Hartman Totals				Invoices	1	\$94.50
Vendor 1856 - Health Management Associates, Inc									
204133-0000002	Professional Services 02/01/2023-02/28/2023	Paid by Check #40967		03/09/2023	03/24/2023	03/24/2023		03/24/2023	191.25
			Vendor 1856 - Health Management Associates, Inc Totals				Invoices	1	\$191.25
Vendor 139 - Henry Schein Inc.									
34890820	Supplies	Paid by Check #40968		02/28/2023	03/24/2023	03/24/2023		03/24/2023	29.03
35328360	Supplies	Paid by Check #40968		03/07/2023	03/24/2023	03/24/2023		03/24/2023	361.89
35343355	Supplies	Paid by Check #40968		03/08/2023	03/24/2023	03/24/2023		03/24/2023	96.66
35030978	Supplies	Paid by Check #40968		03/10/2023	03/24/2023	03/24/2023		03/24/2023	384.80



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Vendor			139 - Henry Schein Inc. Totals			Invoices		4	\$872.38
Vendor 1897 - Holloway Environmental Solutions, LLC									
INV-HES-2144	Holloway Environmental Biosolids	Paid by Check #40969		01/31/2023	03/24/2023	03/24/2023		03/24/2023	28,716.80
Vendor			1897 - Holloway Environmental Solutions, LLC Totals			Invoices		1	\$28,716.80
Vendor 174 - Howard's Pest Control									
111380	Rodent Control	Paid by Check #40970		02/15/2023	03/24/2023	03/24/2023		03/24/2023	243.00
111936	March 2023	Paid by Check #40970		03/06/2023	03/24/2023	03/24/2023		03/24/2023	93.00
Vendor			174 - Howard's Pest Control Totals			Invoices		2	\$336.00
Vendor 133 - J & D Lighting & Alarm									
156925	Fy 22/23-Parks-qtrly monitoring @KC Vista (4/23-6/23)	Paid by Check #40971		03/15/2023	03/24/2023	03/24/2023	03/17/2023	03/24/2023	104.85
Vendor			133 - J & D Lighting & Alarm Totals			Invoices		1	\$104.85
Vendor 440 - Johnson Controls Security Solutions									
38608534	405 E El Monte Way 04/01/23-06/30/23	Paid by Check #40972		03/11/2023	03/24/2023	03/24/2023		03/24/2023	491.25
Vendor			440 - Johnson Controls Security Solutions Totals			Invoices		1	\$491.25
Vendor 852 - Kent M Kawagoe Ph.D.									
JANFEB2023	PD - Psych. I Evaluations - Escovedo A, Hernandez J & Magana J	Paid by Check #40973		02/28/2023	03/24/2023	03/24/2023		03/24/2023	1,025.00
Vendor			852 - Kent M Kawagoe Ph.D. Totals			Invoices		1	\$1,025.00
Vendor 1247 - Linda Launer									
Sacramento 03/23	Meeting 03/28/23-03/29/23	Paid by Check #40974		03/21/2023	03/24/2023	03/24/2023		03/24/2023	91.00
Vendor			1247 - Linda Launer Totals			Invoices		1	\$91.00
Vendor 281 - Law and Associates Investigations									
23-062	PD - Background - C. Morales	Paid by Check #40975		03/17/2023	03/24/2023	03/24/2023		03/24/2023	700.00
Vendor			281 - Law and Associates Investigations Totals			Invoices		1	\$700.00
Vendor 682 - Jose Lopez									
Reimbursement1	Boot Reimbursement	Paid by Check #40976		03/20/2023	03/24/2023	03/24/2023		03/24/2023	180.00
Vendor			682 - Jose Lopez Totals			Invoices		1	\$180.00
Vendor 1368 - Elijah Luna									
CPRS 2023	Fy 22/23-Per diem for CPRS conf 4/3-4/6	Paid by Check #40977		03/09/2023	03/24/2023	03/24/2023	03/09/2023	03/24/2023	204.00
Vendor			1368 - Elijah Luna Totals			Invoices		1	\$204.00
Vendor 857 - Lynn Peavey Company									
398394	PD - Supplies	Paid by Check #40978		03/08/2023	03/24/2023	03/24/2023		03/24/2023	104.16



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398709	PD - Supplies	Paid by Check #40978		03/16/2023	03/24/2023	03/24/2023		03/24/2023	194.13
Vendor 857 - Lynn Peavey Company Totals									
						Invoices	2		\$298.29
Vendor 1723 - Matson Alarm Co, Inc.									
431510	Fy 22/23-Sportsplex-Service call re motion 4	Paid by Check #40979		03/16/2023	03/24/2023	03/24/2023	03/16/2023	03/24/2023	100.00
3474212	Fy 22/23-Sportsplex-Mo. monitoring & lease contract	Paid by Check #40979		04/01/2023	03/24/2023	03/24/2023	03/16/2023	03/24/2023	96.00
Vendor 1723 - Matson Alarm Co, Inc. Totals									
						Invoices	2		\$196.00
Vendor 1655 - Medline Industries, Inc.									
2257158391	Supplies	Paid by Check #40980		03/09/2023	03/24/2023	03/24/2023		03/24/2023	55.43
Vendor 1655 - Medline Industries, Inc. Totals									
						Invoices	1		\$55.43
Vendor 160 - Mid Valley Publishing Inc.									
0327578-IN	Ord. No. 2023-01 2/9/2023	Paid by Check #40981		02/09/2023	03/24/2023	03/24/2023		03/24/2023	392.00
0327579-IN	Ord. No. 2023-02 2/9/2023	Paid by Check #40981		02/09/2023	03/24/2023	03/24/2023		03/24/2023	264.00
Vendor 160 - Mid Valley Publishing Inc. Totals									
						Invoices	2		\$656.00
Vendor 1754 - Navia Benefits Solutions									
10673896	202201 - Sec. 125 Participant Fee 02/23	Paid by Check #40982		02/27/2023	03/24/2023	03/24/2023		03/24/2023	312.00
Vendor 1754 - Navia Benefits Solutions Totals									
						Invoices	1		\$312.00
Vendor 142 - Office Depot BSD									
286740802001	Office Supplies	Paid by Check #40983		02/06/2023	03/24/2023	03/24/2023		03/24/2023	390.37
300517219001	PD - Supplies	Paid by Check #40983		03/03/2023	03/24/2023	03/24/2023		03/24/2023	637.88
300517750001	PD - Supplies	Paid by Check #40983		03/06/2023	03/24/2023	03/24/2023		03/24/2023	16.26
300901815001	PD - Supplies	Paid by Check #40983		03/09/2023	03/24/2023	03/24/2023		03/24/2023	124.12
Vendor 142 - Office Depot BSD Totals									
						Invoices	4		\$1,168.63
Vendor 1708 - James Olvera									
April 2023	Anthem Reimb 04/01/2023-04/30/2023	Paid by Check #40984		03/22/2023	03/24/2023	03/24/2023		03/24/2023	251.74
Vendor 1708 - James Olvera Totals									
						Invoices	1		\$251.74
Vendor 76 - Pacific Gas & Electric									
9624769219503/23	225 S L ST 02/07/23-03/08/23	Paid by Check #41007		03/09/2023	03/24/2023	03/24/2023		03/24/2023	71.45
35474471071 3/23	420 E TULARE ST 2/7/23-3/8/2023	Paid by Check #41001		03/10/2023	03/24/2023	03/24/2023		03/24/2023	471.01
6183054474003/23	496 E TULARE ST 02/07/23-03/08/23	Paid by Check #41006		03/10/2023	03/24/2023	03/24/2023		03/24/2023	3,872.20
1693144969403/23	Parks N/KAMM E/GREEN 02/08/23-03/09/23	Paid by Check #40994		03/10/2023	03/24/2023	03/24/2023		03/24/2023	7.61
6021181187603/23	Sportsplex 201 N URUAPAN WAY 02/07/23-03/08/23	Paid by Check #40995		03/10/2023	03/24/2023	03/24/2023		03/24/2023	1,532.62



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7314274871103/23	CS & Parks 02/01/23-03/02/23	Paid by Check #40996		03/13/2023	03/24/2023	03/24/2023		03/24/2023	1,755.57
5683054506903/23	PD - 02/07/2023 - 03/08/2023	Paid by Check #41002		03/10/2023	03/24/2023	03/24/2023		03/24/2023	3,988.27
	Billing Charges								
1344455159503/23	NW COR M & VENTURA AVE 02/07/23-03/08/23	Paid by Check #40985		03/09/2023	03/24/2023	03/24/2023		03/24/2023	28.48
2104753778803/23	155 W MERCED AVE 02/07/23-03/08/23	Paid by Check #40986		03/09/2023	03/24/2023	03/24/2023		03/24/2023	54.97
447571605183/23	180 W Merced STE A	Paid by Check #41003		03/09/2023	03/24/2023	03/24/2023		03/24/2023	414.64
6058049267003/23	148 S M ST 02/07/23-03/08/23	Paid by Check #40989		03/09/2023	03/24/2023	03/24/2023		03/24/2023	8.69
768101241983/23	180 W Merced STE C	Paid by Check #41005		03/09/2023	03/24/2023	03/24/2023		03/24/2023	45.61
975086523733/23	180 W Merced STE B	Paid by Check #41004		03/09/2023	03/24/2023	03/24/2023		03/24/2023	45.92
4964113683003/23	MILSAP & MYRTLE ALLEY 02/07/23-03/08/23	Paid by Check #40987		03/10/2023	03/24/2023	03/24/2023		03/24/2023	132.71
5167308560403/23	S/E KAMM & ALTA 02/08/23-03/09/23	Paid by Check #40988		03/10/2023	03/24/2023	03/24/2023		03/24/2023	84.40
6724721106203/23	TULARE & L ST 02/08/23-03/09/23	Paid by Check #40990		03/10/2023	03/24/2023	03/24/2023		03/24/2023	115.02
6766387770103/23	TULARE & L ST 02/08/23-03/09/23	Paid by Check #40991		03/10/2023	03/24/2023	03/24/2023		03/24/2023	69.70
8474719951503/23	ALTA & KAMM AVE 02/09/23-03/10/23	Paid by Check #40993		03/12/2023	03/24/2023	03/24/2023		03/24/2023	86.11
5027356573403/23	RANDLE AVE S/EL MONTE 02/09/23-03/12/23	Paid by Check #40992		03/13/2023	03/24/2023	03/24/2023		03/24/2023	15.13
1561888272203/23	PW 02/11/23-03/14/23	Paid by Check #40997		03/15/2023	03/24/2023	03/24/2023		03/24/2023	147.19
3380779542303/22	2007 N CRAWFORD AVE 02/10/23-03/13/23	Paid by Check #40998		03/15/2023	03/24/2023	03/24/2023		03/24/2023	24.29
9179222553303/23	PW 02/15/23-03/16/23	Paid by Check #40999		03/16/2023	03/24/2023	03/24/2023		03/24/2023	929.41
9548749847903/23	ALTA & NEBRASKA AVE 02/11/23-03/14/23	Paid by Check #41000		03/16/2023	03/24/2023	03/24/2023		03/24/2023	91.03
			Vendor 76 - Pacific Gas & Electric Totals				Invoices	23	\$13,992.03
Vendor 1411 - Placer Title Company									
P-545428	Placer Title 017-210-020	Paid by Check #41008		04/04/2022	03/24/2023	03/24/2023		03/24/2023	139,562.80
P545434-01	Placer Title APN 030-260-043 and 046 Kamm and Alta ROW	Paid by Check #41030		03/01/2023	03/10/2023	03/10/2023		03/24/2023	111.00
			Vendor 1411 - Placer Title Company Totals				Invoices	2	\$139,673.80
Vendor 207 - Polydene Inc.									
1718676	Polydyne Clarifloc	Paid by Check #41009		02/28/2023	03/24/2023	03/24/2023		03/24/2023	5,036.67
			Vendor 207 - Polydene Inc. Totals				Invoices	1	\$5,036.67
Vendor 33 - R & S Erection of Fresno County									
847090	Repairs	Paid by Check #41010		03/14/2023	03/24/2023	03/24/2023		03/24/2023	520.00
			Vendor 33 - R & S Erection of Fresno County Totals				Invoices	1	\$520.00
Vendor 38 - Reedley Irrigation System									



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RIS-POS02-44842	Fy 22/23-Parks-Wedge-tite & NIP	Paid by Check #41011		03/15/2023	03/24/2023	03/24/2023	03/16/2023	03/24/2023	201.51
Vendor 38 - Reedley Irrigation System Totals									Invoices 1 201.51
Vendor 349 - RES COM Pest Control									
2106518	PD - Kennels Pest Control Service	Paid by Check #41012		03/15/2023	03/24/2023	03/24/2023		03/24/2023	48.00
Vendor 349 - RES COM Pest Control Totals									Invoices 1 48.00
Vendor 1526 - Robert Soria Trucking									
15123	Sand for Flooding	Paid by Check #41013		01/27/2023	03/24/2023	03/24/2023		03/24/2023	320.00
15138	Sand for Flooding	Paid by Check #41013		03/13/2023	03/24/2023	03/24/2023		03/24/2023	592.00
Vendor 1526 - Robert Soria Trucking Totals									Invoices 2 912.00
Vendor 42 - Scout Specialties									
164303	Fy 22/23-Parks-52 piece combo ratchet & socket set	Paid by Check #41014		03/09/2023	03/24/2023	03/24/2023	03/15/2023	03/24/2023	26.85
Vendor 42 - Scout Specialties Totals									Invoices 1 26.85
Vendor 46 - Self Help Enterprises									
1.4	17-IIG-12068 AM1, Sierra Village II Draw #2	Paid by Check #41015		01/24/2023	03/24/2023	03/24/2023		03/24/2023	155,924.70
Vendor 46 - Self Help Enterprises Totals									Invoices 1 155,924.70
Vendor 121 - State of California									
641167	FEBRUARY 2023	Paid by Check #41016		03/02/2023	03/24/2023	03/24/2023		03/24/2023	953.00
Vendor 121 - State of California Totals									Invoices 1 953.00
Vendor 581 - Michele Tapia									
CPRS 2023	Fy 22/23-Per diem for CPRS conf 4/3-4/6	Paid by Check #41017		03/09/2023	03/24/2023	03/24/2023	09/09/2023	03/24/2023	204.00
Vendor 581 - Michele Tapia Totals									Invoices 1 204.00
Vendor 426 - Tioga Solar									
1060293766	Tioga 2/01/2023 - 02/28/2023	Paid by Check #41018		02/28/2023	03/24/2023	03/24/2023		03/24/2023	32,191.85
Vendor 426 - Tioga Solar Totals									Invoices 1 32,191.85
Vendor 561 - America Trevino									
March 2023	Anthem Reimb 03/01/2023-03/31/2023	Paid by Check #41019		03/22/2023	03/24/2023	03/24/2023		03/24/2023	212.74
Vendor 561 - America Trevino Totals									Invoices 1 212.74
Vendor 658 - Eric Trevino									
SANDIEGO042023	PD - POST MGMT Course - San Diego, CA Per Diem	Paid by Check #41020		02/14/2023	03/24/2023	03/24/2023		03/24/2023	289.00
Vendor 658 - Eric Trevino Totals									Invoices 1 289.00
Vendor 1352 - Trizetto Provider Solutions, LLC									



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3U25032300	SERVICE MONTH MARCH 2023	Paid by Check #41021		03/01/2023	03/24/2023	03/24/2023		03/24/2023	217.07
		Vendor 1352 - Trizetto Provider Solutions, LLC Totals				Invoices	1		\$217.07
Vendor 192 - UNUM Life Insurance Company of America									
03/01/23-3/31/23	0537123-001	Paid by Check #41022		02/07/2023	03/24/2023	03/24/2023		03/24/2023	8,148.23
04/01/23-4/30/23	0537123-001	Paid by Check #41022		03/10/2023	03/24/2023	03/24/2023		03/24/2023	10,610.55
		Vendor 192 - UNUM Life Insurance Company of America Totals				Invoices	2		\$18,758.78
Vendor 273 - US Bank									
496586488	March 2023	Paid by Check #41023		03/12/2023	03/24/2023	03/24/2023		03/24/2023	130.96
		Vendor 273 - US Bank Totals				Invoices	1		\$130.96
Vendor 1702 - US Bank Corporate Payment System									
1829 3/13/23	Dustin	Paid by EFT #2354		03/13/2023	03/24/2023	03/24/2023		03/24/2023	180.94
3437 3/13/23	FD	Paid by EFT #2355		03/13/2023	03/24/2023	03/24/2023		03/24/2023	824.22
4210 3/13/23	Michelle	Paid by EFT #2353		03/13/2023	03/24/2023	03/24/2023		03/24/2023	824.91
6510 3/13/23	Joanne	Paid by EFT #2351		03/13/2023	03/24/2023	03/24/2023		03/24/2023	2,066.00
6604 3/13/23	Jordan	Paid by EFT #2352		03/13/2023	03/24/2023	03/24/2023		03/24/2023	514.87
		Vendor 1702 - US Bank Corporate Payment System Totals				Invoices	5		\$4,410.94
Vendor 154 - USA Bluebook									
298746	USA Blue Book Materials Credit	Paid by Check #41024		03/14/2023	03/24/2023	03/24/2023		03/24/2023	(316.25)
298749	USA Bluebook materials Credit	Paid by Check #41024		03/14/2023	03/24/2023	03/24/2023		03/24/2023	(73.22)
301027	USA Blue Book Supplies	Paid by Check #41024		03/16/2023	03/24/2023	03/24/2023		03/24/2023	566.78
301316	USA Blue Book Materials	Paid by Check #41024		03/16/2023	03/24/2023	03/24/2023		03/24/2023	587.43
302393	USA Blue Book	Paid by Check #41024		03/17/2023	03/24/2023	03/24/2023		03/24/2023	2,247.36
		Vendor 154 - USA Bluebook Totals				Invoices	5		\$3,012.10
Vendor 359 - Valero Marketing & Supply Company									
87780029	PD - Fuel Charges 02/07/2023 - 03/06/2023	Paid by EFT #2356		03/06/2023	03/24/2023	03/24/2023		03/24/2023	9,208.25
		Vendor 359 - Valero Marketing & Supply Company Totals				Invoices	1		\$9,208.25
Vendor 354 - Verizon Wireless									
9929738594	PD - 02/11/2023 - 03/10/2023 Billing Charges	Paid by Check #41025		03/10/2023	03/24/2023	03/24/2023		03/24/2023	2,094.34
		Vendor 354 - Verizon Wireless Totals				Invoices	1		\$2,094.34
Vendor 1122 - Wesdak, Inc.									
366394	Wesdak materials	Paid by Check #41026		12/20/2022	03/24/2023	03/24/2023		03/24/2023	488.52
366886	Wesadak Materials	Paid by Check #41026		02/03/2023	03/24/2023	03/24/2023		03/24/2023	1,801.58
		Vendor 1122 - Wesdak, Inc. Totals				Invoices	2		\$2,290.10
Vendor 1280 - Willdan Engineering									
00337437	PLAN CHECK through 2/24/2023	Paid by Check #41027		03/13/2023	03/24/2023	03/24/2023		03/24/2023	825.00



Accounts Payable Invoice Report

Payment Date Range 03/18/23 - 03/24/23
 Report By Vendor - Invoice
 Summary Listing

Invoice Number	Invoice Description	Status	Held Reason	Invoice Date	Due Date	G/L Date	Received Date	Payment Date	Invoice Net Amount
Vendor 1280 - Willdan Engineering Totals						Invoices	1		\$825.00
Vendor 1313 - Yezpe Plumbing 08317	Pumping water at golf Course	Paid by Check #41028		02/25/2023	03/24/2023	03/24/2023		03/24/2023	1,400.00
Vendor 1313 - Yezpe Plumbing Totals						Invoices	1		\$1,400.00
Vendor UnitedHealthcare 22-2238	Overpayment Run #22-2238	Paid by Check #41029		03/17/2023	03/24/2023	03/24/2023		03/24/2023	310.34
Vendor UnitedHealthcare Totals						Invoices	1		\$310.34
Grand Totals						Invoices	156		\$1,075,950.99



City Council Staff Report

Department: Planning and Development

March 28, 2023

To: Mayor and City Council

From: Ismael Hernandez, Public Works Director

By: Karl Schoettler, City Planning Consultant

Subject: Public Hearing to consider a redesign of the previously-approved Montebella Tentative Subdivision Map (Application 2023-01) on 28.8 acres located on the west side of Englehart Avenue, north of the Saginaw Avenue alignment. (KSch)

RECOMMENDATION

City Council conduct a public hearing and adopt the following:

1. Resolution No. 2023-15 (Attachment "A") approving an amendment to the site's General Plan land use designation.
2. Introduce and conduct the first reading, waive reading in full, of the Ordinance No. 2023-03 (Attachment "B") approving a zone change to adjust existing zoning designations on the site.
3. Resolution No. 2023-16 (Attachment "C") approving an amendment for the design of the Tentative Subdivision Map to increase the number of single family lots from 100 to 123 and revise the size and design of a proposed onsite neighborhood park/temporary stormwater ponding basin.
4. Set April 11, 2023 for the second reading of Ordinance No. 23-##.

EXECUTIVE SUMMARY

Public Hearing to consider a redesign of the previously-approved Montebella Tentative Subdivision Map on 28.8 acres located on the west side of Englehart Avenue, north of the Saginaw Avenue alignment.

OUTSTANDING ISSUES

None.

DISCUSSION

In September, 2022, the City Council voted for several approvals for the annexation and development of a site located on the west side of Englehart Avenue, north of the Saginaw Avenue alignment (see Attachment “D” (Location Map) and Attachment “E” (Aerial Photo)). Specific actions approved at that time included annexation, rezoning, tentative subdivision map and adoption of an environmental study.

The 28.8-acre parcel was approved for 100 single family residential lots and a park/stormwater basin. In addition to the expense of developing the park/ponding basin, the project involves significant offsite improvements, including the widening of Englehart Avenue (in front of other lots south of the site, to the intersection of Englehart/Saginaw), the piping of Horseman Ditch (along other parcels (in addition to the site frontage)), improvements to the intersection of Englehart/Saginaw, and the widening of Saginaw (across other lots, east to the intersection of Englehart/Saginaw).

The applicant has determined that the expense of these improvements are too significant and the City and applicant have been unable to come to an agreement regarding compensation for the developer’s expenses in this instance. Because of these issues they have made the project cost-prohibitive and the City is recommending an alternative subdivision design that will allow the developer (and City) to afford to be able to install all of the off- and on-site improvements, and ensure the developer is financially able to recoup their costs in building the subdivision and the offsite improvements.

The proposed redesigned subdivision map is shown in Attachment “F”. The redesign increases the number of lots from 100 to 123. Correspondingly, the neighborhood park/stormwater basin has been reduced in size from 4.5 acres to 1.2 acres (and will initially function only as a stormwater basin). The park/pond is still situated in the southwest corner of the site.

The street pattern within the subdivision has been changed significantly, but still with the goal of achieving connectivity while preventing speeding along residential streets. The northern half of the site has one street connection to Englehart Avenue and features two “loop” street patterns that create relatively short blocks (again to facilitate traffic calming) while maintaining connectivity. A street stub to the north is proposed near the northwest corner of the site, to provide connectivity when development occurs north of this site.

The southern portion of the site has one connection to the future Saginaw Avenue and two cul-de-sac streets that bracket the stormwater basin area.

The project will be developed in two phases, with the first phase being the southerly half of the site (40 lots) and the second phase being the northern half, with 83 lots.

Stormwater Basin/Park

As mentioned previously, the park/ponding basin has been reduced in size and will function primarily as a stormwater basin only. However, at some point in the future the City will develop a master stormwater basin on a site to the west and the basin within the Montebella subdivision can be filled in and improved as a neighborhood park. It is unknown how soon that would occur, and is dependent on the rate of development that occurs on the west side of the City.

Zone Change and General Plan Amendment

To accommodate the revised subdivision map the previously-approved zoning and land use designations will need to be amended as shown in Attachment “G”. The area zoned “RCO” (Resource Conservation) has been reduced to correspond to the reduced stormwater basin on the southwest corner of the site.

Planned Unit Development zone

The project is still proposed as a “PUD” (Planned Unit Development) which allows for deviation from the 6,000 square foot minimum lot size standard for the proposed lots. Forty eight of the proposed lots will be smaller than 6,000 square feet while the remaining 75 lots will exceed 6,000 square feet. The average lot size of the proposed lots is 6,808 square feet.

The revised subdivision will still feature amenities that were required in exchange for the “Planned Development” zoning designation, including:

- A landscaped median island at the entry street from Englehart as well as stamped concrete pavement at all entryways.
- Tree-lined streets.
- Pedestrian-scale, antique-style street lamps
- Variety in architectural designs of the facades of the homes

Environmental Review

Staff has reviewed the previously-prepared environmental study for the project and has determined that it adequately addresses the revised project design. The mitigation measures identified in the previous study are still applicable, including measures related to nesting birds, air quality, cultural resources and transportation (vehicle miles traveled).

Planning Commission Hearing

The Planning Commission conducted a hearing on March 7, 2023 to consider the amended map. Following discussion, the Commission voted 3-0 to recommend

approval of the redesign (two members were absent).

CONSULTATION/PUBLIC COMMENT

As required by municipal code, the City mailed notices of the hearing for the proposed revision to the subdivision to property owners within 300 feet of the site, and tenants within 100 feet of the site. As of the writing of this staff report, no inquiries had been made.

FINDINGS

The revised project complies with the required Findings of the Dinuba Municipal Code for application of the PUD (Planned Unit Development) zone, and Tentative Subdivision Map contained in the attached resolutions.

BACKGROUND INFORMATION

Applicant: San Joaquin Valley Homes

Location: West side of Englehart Avenue north of the Saginaw Avenue alignment.

Assessor Parcel Numbers: 012-272-013

Site Size: The parcel proposed for the subdivision contains approximately 28.8±acres.

Zoning:

1. R-1-6 (Single Family Residential – 6,000 square foot minimum lot size) with “PUD” (Planned Unit Development) overlay zone for proposed 123-lot subdivision.
2. RCO (Resource Conservation) for proposed Neighborhood Park/Stormwater Ponding basin

General Plan: “Medium Density Residential” and “Park/Pond”.

Existing Land Use: Agriculture.

ADJACENT LAND USES, ZONING, AND GENERAL PLAN DESIGNATIONS

Direction	Current Use	Zoning	General Plan
North	Agriculture and rural dwellings	AE-20 (Tulare County Agricultural zoning)	“Medium Density Residential”
South	Agriculture and single family home	R-1-6	“Medium Density Residential”
	Agriculture, vacant		

East	land and single family homes	R-1-6 and R-1-10	“Medium Density Residential”
West	Agriculture	AE-20 (Tulare County Agricultural zoning)	“Medium Low Density Residential” and “Public/Semi Public”

FISCAL IMPACT

Upon development each lot will pay the City's Development Impact Fees.

PUBLIC HEARING

A public hearing notice was published in the Fresno Bee and mailed to property owners within 300 feet of the site, and occupants within 100 feet of the site.

ATTACHMENTS:

- A. Resolution 2023-15 (General Plan Amendment)
- B. Ordinance No. 2023-03 (Zone Change)
- C. Resolution 2023-16 (Tentative Subdivision Map)
- D. Location Map
- E. Aerial Photo
- F. Amended Subdivision Map
- G. Proposed Zoning and Land Use Designations

ATTACHMENT "A"

RESOLUTION NO 2023-15

**BEFORE THE CITY COUNCIL
CITY OF DINUBA
COUNTY OF TULARE, STATE OF CALIFORNIA**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF DINUBA APPROVING A GENERAL
PLAN AMENDMENT PERTAINING TO THE REDESIGN OF THE PREVIOUSLY-APPROVED
MONTEBELLA TENTATIVE SUBDIVISION MAP**

WHEREAS, an application was previously approved for a 100-lot tentative subdivision map (and associated actions including annexation, zone change, general plan amendment) for a parcel generally located along the west side of Englehart Avenue north of the Saginaw Way alignment. The Assessor Parcel Number of the site is 012-272-013, and

WHEREAS, due to financial challenges associated with expensive on- and off-site requirements associated with the project, a change to the design of the subdivision is proposed to increase the number of lots from 100 to 123 and to reduce the size of a proposed park/stormwater ponding basin from 4.5 acres to 1.2 acres, and

WHEREAS, the Planning Commission conducted a public hearing to consider this request on March 7, 2023 and voted unanimously to recommend approval, and

WHEREAS, property owners within 300 feet and occupants within 100 feet of the subject parcels were notified of the City Council's meeting and a public hearing notice was published ten (10) days prior to the City Council's meeting, and

WHEREAS, the Planning Department has prepared a staff report and environmental finding, and

WHEREAS, the City Council held a public hearing on this action and accepted testimony.

NOW, THEREFORE, BE IT RESOLVED that the City Council, after considering all the evidence presented, determined the following findings were relevant in evaluating these actions:

1. The proposed actions are consistent with the goals, objectives and policies of the Dinuba General Plan.

Dinuba City Council
Resolution 2023-15

General Plan Amendment and Zone Change for Montebella Site

2. The City has determined the environmental analysis that was prepared (consistent with CEQA (California Environmental Quality Act)) for the previously-approved version of the project is still valid and that mitigation measures identified in that study are still applicable.

3. The proposed actions will not have an adverse impact on the health, safety and welfare of residents in the neighborhood or community.

NOW, THEREFORE BE IT RESOLVED THAT the General Plan Amendment (as shown in attached Exhibit 1) is hereby approved by the Dinuba City Council for approval.

The foregoing resolution was adopted upon a motion of Council member _____, second by Council member _____, at a regular meeting of the Dinuba City Council on the 28th day of March, 2023, by the following roll call vote:

AYES:

NOES:

ABSENT:

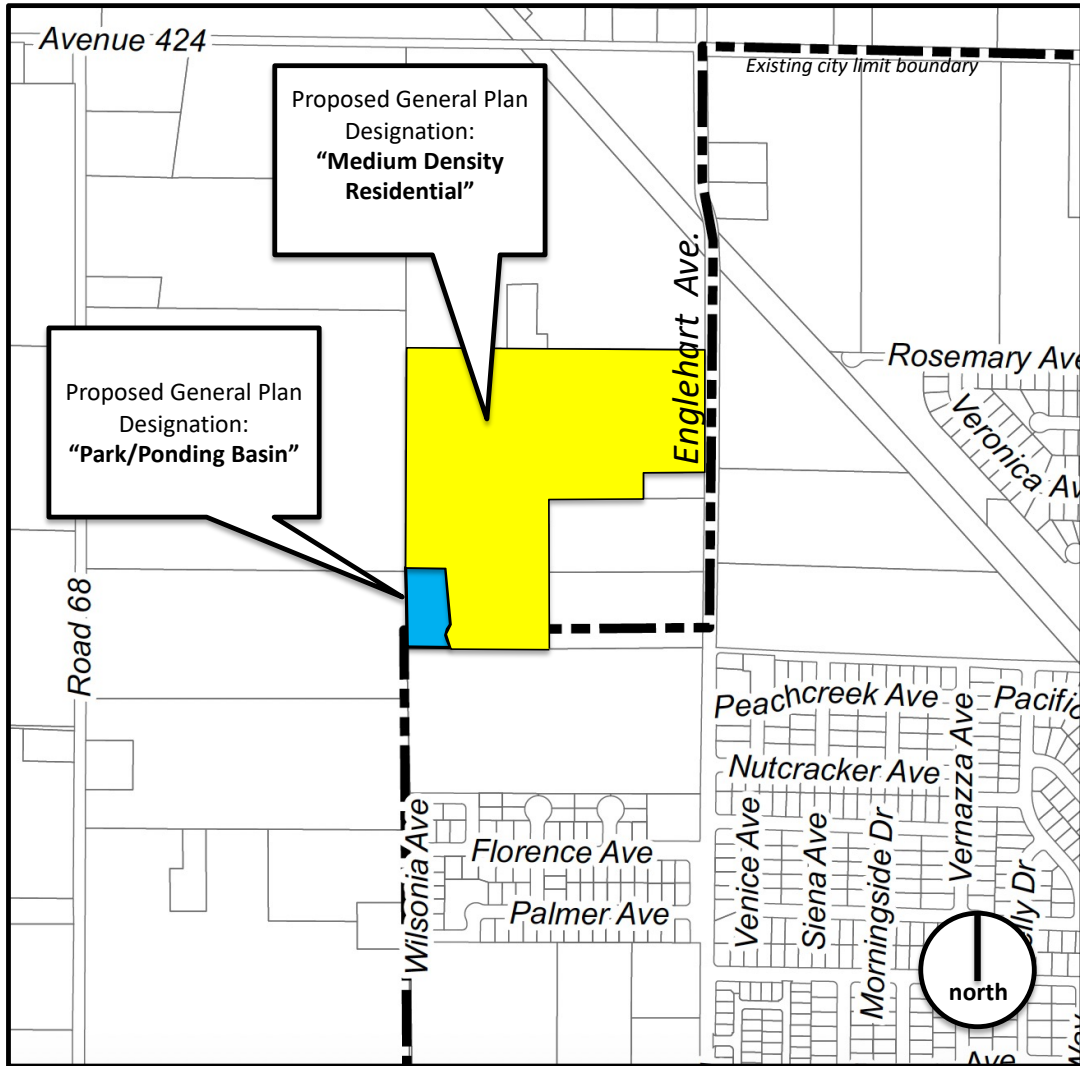
ABSTAIN:

Maribel Reynosa, Mayor of the City of Dinuba

ATTEST:

Maria Ananiz, City Clerk

Exhibit 1: Proposed General Plan Amendment



ORDINANCE NO. 2023-03

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF DINUBA AMENDING THE ZONING OF ONE PARCEL LOCATED ON THE WEST SIDE OF ENGLEHART AVENUE, NORTH OF SAGINAW AVENUE.

THE CITY COUNCIL OF THE CITY OF DINUBA HEREBY DOES ORDAIN:

SECTION 1. FINDINGS.

- (a) The City of Dinuba administers a Zoning Ordinance (Title 17 of the Dinuba Municipal Code), including a map that designates all parcels of land with specific zoning classifications.
- (b) The purpose of zoning is to facilitate a well-planned City and to avoid land use conflicts, among other objectives.
- (c) The City has received an application to amend the design and zoning of a proposed subdivision generally located on the west side of Englehart Avenue and the north side of the Saginaw Avenue alignment. The parcels are currently designated with several zones as shown on Exhibit 1 (attached) including the "R-1-6 (PUD)" and "RCO" zones.
- (d) The Assessor Parcel Number of the subject parcel is 012-272-013.
- (e) The purpose of the zone change is to facilitate the redesign of a previously-approved subdivision for the site.
- (f) The proposed zone change is shown on Exhibit 1.

SECTION 2. SEVERABILITY.

Each of the provisions of this ordinance is severable from all other provisions. If any article, section, subsection, paragraph, sentence, clause or phrase of this ordinance is for any reason held by a court of competent jurisdiction to be invalid, such decision shall not affect the validity of the remaining portions of this ordinance.

SECTION 3. The City Clerk is hereby directed to cause a summary of this Ordinance to be published by one insertion in a newspaper of general circulation in the community at least five (5) days prior to adoption and again fifteen (15) days after its adoption. If a summary of the ordinance is published, then the City Clerk shall cause a certified copy of the full text of the proposed ordinance to be posted in the office of the City Clerk at least five days prior to the

Council meeting at which the ordinance is adopted and again after the meeting at which the ordinance is adopted. The summary shall be approved by the City Attorney.

This Ordinance shall take effect and be in full force thirty (30) days from and after its adoption.

SECTION 5. The foregoing Ordinance was introduced at a regular meeting of the City Council of the City of Dinuba on the 28th day of March, 2023, by the following vote:

AYES:

NOES:

ABSENT:

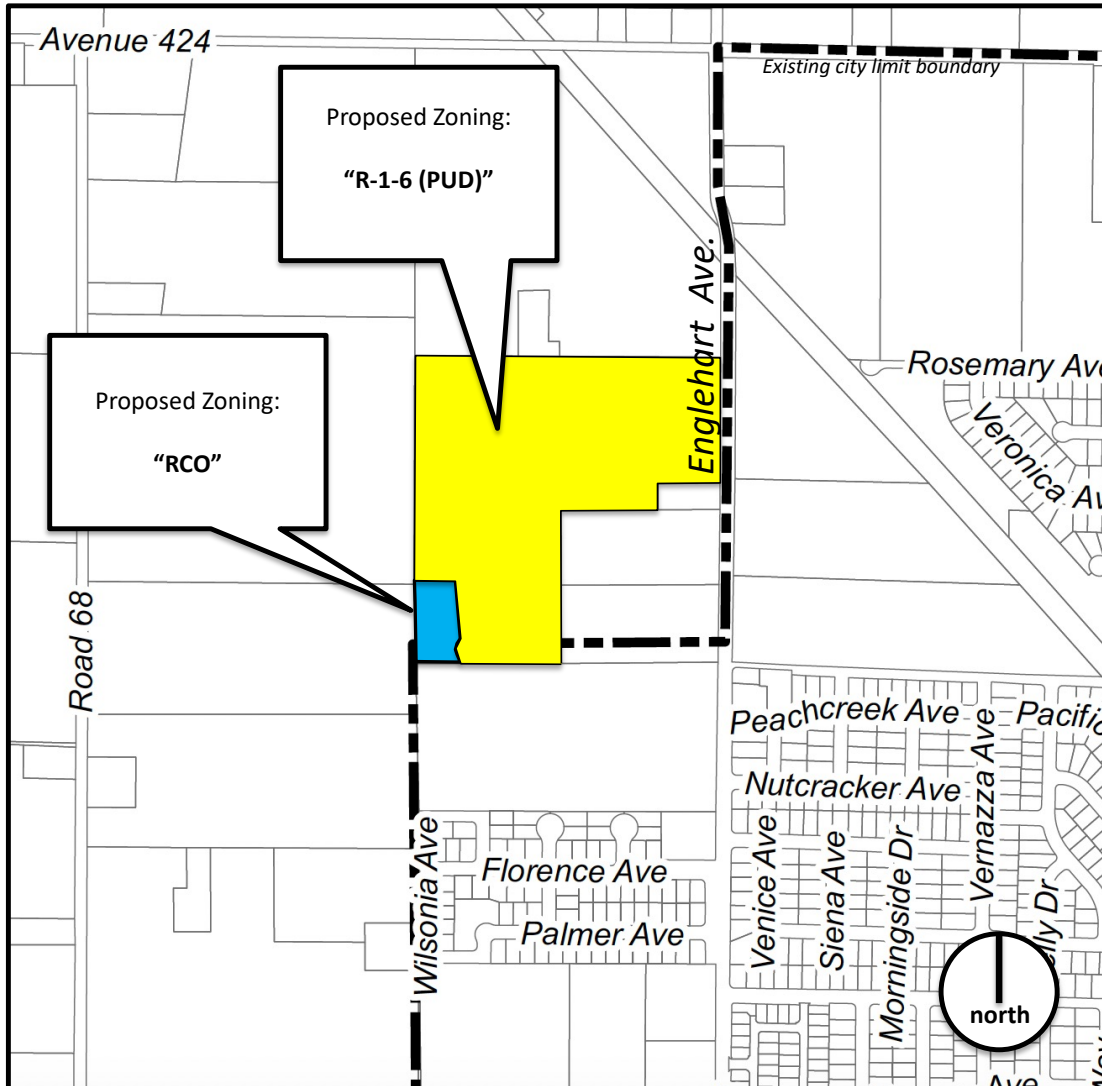
ABSTAIN:

Maribel Reynosa, Mayor of the City of Dinuba

ATTEST:

Maria Ananiz, City Clerk

EXHIBIT 1



ATTACHMENT "C"

RESOLUTION NO 2023-16

**BEFORE THE CITY COUNCIL
CITY OF DINUBA
COUNTY OF TULARE, STATE OF CALIFORNIA**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF DINUBA APPROVING AN
AMENDMENT TO A PREVIOUSLY-APPROVED TENTATIVE SUBDIVISION MAP (SAN
JOAQUIN VALLEY HOMES) TO CREATE 123 SINGLE FAMILY RESIDENTIAL LOTS, AND A
NEIGHBORHOOD PARK/TEMPORARY STORMWATER PONDING BASIN**

WHEREAS, a request was submitted to amend a previously-approved tentative subdivision map to revise the number of lots from 100 to 123 single family residential lots and also to adjust a proposed park/stormwater basin from 4.5-acres to 1.2 acres for a site generally located along the west side of Englehart Avenue and north of the Saginaw Way alignment. The Assessor Parcel Number of the subject parcel is 012-272-013, and

WHEREAS, the site was recently annexed and rezoned by the City to accommodate the proposed subdivision, and

WHEREAS, due to the high cost of offsite improvements (including road widenings and piping of a canal) it was determined the previously-approved subdivision design was not feasible. Based on this concern, the project has been redesigned to adjust the number of lots from 100 to 123 and reduce the size of the park/ponding basin, and

WHEREAS, the Dinuba Planning Commission conducted a public hearing to consider the redesign on March 7, 2023 and voted unanimously to recommend approval of the request, and

WHEREAS, property owners within 300 feet and occupants within 100 feet of the subject parcels were notified of the City Council's meeting and a public hearing notice was published ten (10) days prior to the City Council's meeting, and

WHEREAS, the Planning Department has prepared a staff report and environmental finding, and

WHEREAS, the City Council held a public hearing on this action and accepted testimony.

NOW, THEREFORE, BE IT RESOLVED that the City Council, after considering all the evidence presented, determined the following findings were relevant in evaluating this request:

1. The proposed amended Tentative Subvdivision Map is consistent with the goals, objectives and policies of the Dinuba General Plan.
2. The City has determined the amended project will have no significant impacts on the environment provided that mitigation measures are implemented, and a Mitigated Negative Declaration prepared (consistent with the California Environmental Quality Act (CEQA) for the previously-approved subdivision has been reviewed and found to be adequate for the project redesign.
3. The proposed amended project will not have an adverse impact on the health, safety and welfare of residents in the neighborhood or community.
4. The proposed amended Tentative Subdivision Map is superior in design compared to what could be achieved by utilizing the standards of the base R-1-6 zone.
4. The amended Tentative Subdivision Map (shown in Exhibit "A" (and on file with the Dinuba Public Works Department)) is subject to conditions of approval listed in Exhibit "B".

NOW, THEREFORE BE IT RESOLVED THAT the amended Montebella Phase 2/3 Subdivision Map is hereby approved by the Dinuba City Council.

The foregoing resolution was adopted upon a motion of Council member _____, second by Council member _____, at a regular meeting of the Dinuba City Council on the 28th day of March, 2023, by the following roll call vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

Maribel Reynosa, Mayor of the City of Dinuba

ATTEST:

Maria Ananiz, City Clerk

Exhibit "A" Montebella 2/3 Amended Tentative Subdivision Map



Exhibit “B”: Conditions of Approval

1) MAPS AND PLANS

- a. The developer shall have a final tract map prepared, in the form prescribed by the Subdivision Map Act and City of Dinuba Municipal Code, by a registered civil engineer or licensed land surveyor. The final tract map shall be digitally submitted to the City of Dinuba Public Works Department. The City maintains a “Final Map Submittal Requirements & Review Checklist” as a resource.
- b. The developer shall digitally submit to the City of Dinuba Public Works Department, a set of construction plans on 24" x 36" sheets for all required improvements. These plans shall be prepared by a registered civil engineer. All applicable plan check and inspection fees shall be paid with the first submittal of plans. All plans shall be approved by the City and all other involved agencies prior to the release of any development permits. The City maintains an “Improvement Plan Submittal Requirements & Review Checklist” as a resource.
- c. Prior to beginning any construction, or within twenty (20) calendar days after the approved plans are released by the City, the developer shall submit to the City of Dinuba Public Works Department one (1) reproducible/electronic copy (PDF) and two (2) black line copies of the approved set of construction plans, and two (2) bound sets of the approved construction specifications, if any.
- d. Within twenty (20) calendar days after all improvements have been constructed and accepted by the City, the developer shall submit to the City of Dinuba Public Works Department one (1) reproducible/electronic copy (PDF) and two (2) black line copies of the approved set of construction plans revised to reflect all field revisions and marked "AS-BUILT" for review and approval. As-Built drawings shall be revised in electronic format, a scanned or field copy of the construction plans will not be accepted. Pad Certification(s) will be required prior to construction of any structure on a lot.

2) GENERAL

- a. The developer shall comply with all conditions set forth in Title 16 of the Dinuba Municipal Code (Subdivisions).
- b. The conditions of project approval set forth herein include certain fees, dedication requirements, reservation requirements and other exactions. Pursuant to Section 66020(d) of the Government Code, these conditions constitute written notice of the amount of such fees, and a description of the dedications, reservations, and other exactions. The applicant is hereby notified that the 90day protest period, commencing from the date of approval of the project, has begun. If the applicant fails to file a protest regarding any of the fees, dedication requirements, reservation requirements or other exactions contained in this notice, complying with all the requirements of Section 66020, the applicant will be legally barred from later challenging such exactions.
- c. Applicant shall pay all applicable development impact fees at the rate in effect at the time of payment. The developer may be eligible for fee credits or fee reimbursements for over-

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Resolution 2023-16

Montebella Phase 2/3 Tentative Subdivision Map

sizing of facilities or construction of other eligible facilities included in the applicable City of Dinuba's Impact Fee Study(s). The City Engineer will determine the type and extent of improvements that are eligible for fee credits or reimbursements and these shall be established in a Subdivision Agreement, to be approved by the City Council.

- d. The developer shall furnish security in a sum to be determined by the City Engineer, prior to final acceptance of the off-site improvements by the City, for the guarantee and warranty of the improvements for a period of one (1) year following the completion and acceptance thereof by the City Council.
- e. The developer shall submit a soils report for approval by the City Engineer with the first submittal of the improvement plans.
- f. The developer shall comply with all the requirements of the local utility (gas and electric), telephone, cable, and other communication companies. It shall be the responsibility of the developer to notify the local utility, telephone, cable, and other communication companies to remove or relocate utility poles where necessary. The City will not accept first submittal of improvement plans without proof that the developer has provided the improvement plans and documents showing all proposed work to the utility, telephone, cable, and other communication companies.
- g. The developer shall contact and address all requirements of the United States Postal Service for the location and type of mailboxes to be installed. The location of the facilities shall be approved by the City Engineer prior to approval of improvement plans or any construction.
- h. The developer shall comply with and be responsible for obtaining encroachment permits from the City of Dinuba for all work performed within the City's right-of-way and easements.
- i. The developer shall install all improvements within public right-of-way and easements in accordance with the City of Dinuba standards, specifications, master plans, and record drawings.
- j. All existing overhead and any new utility facilities located on-site, and within the street right-of-way or easements along the streets adjacent to this tract shall be undergrounded unless otherwise approved by the City Engineer.
- k. The developer shall provide and pay for all compaction testing required by the QAP (Quality Assurance Plan). Compaction test results shall be submitted to the City Engineer for review and approval.
- l. If the overall development is to be built in phases, then each phase shall have adequate access as required by the City of Dinuba Police and Fire Departments, and the City Engineer. The developer shall submit a schedule showing the sequence of development within the area covered by the tentative map.
- m. During the site construction, any public streets fronting the project shall be kept clear of any construction or landscaping debris and shall not be used as a storage area for equipment, materials, or other items.
- n. In order to provide for reasonable municipal protection during all phases of construction, the developer shall maintain pedestrian and vehicular access to all surrounding properties and buildings to the satisfaction of the City of Dinuba Police and Fire Department, and City Engineer.

- o. The developer shall be responsible for all actions of his contractors and subcontractors during the course of any work occurring on the site. The developer shall designate, in writing before starting work, an authorized representative who shall have complete authority to represent and to act for the developer. Said authorized representative shall be present at the site of the work at all times while work is actually in progress on the development. During periods when work is suspended, arrangements acceptable to the City Engineer shall be made for any emergency work which may be required. When the developer or his authorized representative is not present on any particular part of the work where it may be desired to give directions, orders may be given by the City Engineer which shall be received and obeyed by the person or persons in charge of the particular work in reference to which the orders are given. Whenever orders are given to the developer's representative or superintendent or foreman to do work required for the convenience and safety of the general public because of inclement weather or any other such cause, such work shall be done at the developer's expense.
- p. The developers contractors shall not work on, place debris on, store supplies or equipment on, or in any other way encroach upon any other properties without the written permission of such property owners. In the event other properties are encroached upon without written permission, work shall be automatically shut down until resolved.

3) DEDICATIONS AND STREET IMPROVEMENTS

- a. The developer shall provide right-of-way acquisition or dedicate free and clear of all encumbrances and/or improve the all streets to City standards:
 - i. 56' Interior Residential Streets:
 - (1) Dedicate 56' for public street and utility purposes.
 - (2) Construct improvements as shown on the Tentative Map. Improvements shall include curb and gutter, sidewalk, drive approaches, curb ramps, street lights, and permanent paving.
 - ii. Englehart Avenue and Saginaw Avenue (Street Designation: Collector):
 - (1) The developer will be required to widen Englehart Avenue along the frontage of the subdivision and in front of the existing residences that are currently being surrounded by the subdivision. Widening Englehart Avenue will require the demolition of an existing residence. Developer will be required to negotiate the demolition of the house.
 - iii. Improvements shall include curb and gutter, parkways with street trees, sidewalk, drive approaches, curb ramps, street lights, landscape and irrigation, and permanent paving.
- b. Developer shall dedicate a 6'-10' public utility easement (width as required by affected utility companies) along all streets and all other locations requested by utility companies. Alternate widths must be approved in writing by all utility companies and a copy of said written approval shall be submitted to the City Engineer.
- c. Developer shall provide a preliminary title report, legal description, and drawings for all dedications required which are not within the boundary of the subdivision.
- d. The developer shall install pedestrian-scale antique-style streetlights in accordance with City Standards at the locations designated by the City Engineer. Streetlight locations shall be shown on the utility plans submitted with the final map for approval. Streetlights at traffic signal locations shall be installed on approved traffic signal poles. Streetlights

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Montebella Phase 2/3 Tentative Subdivision Map

shall be owned and maintained by City of Dinuba. Developer shall prepare a street lighting plan for approval by the City Engineer.

- e. Developer shall provide for all striping, stenciling, pavement markers, delineators and signage required of all street improvements within the development. All traffic signs and street name signs shall be installed in accordance with City Standards and the CA MUTCD (latest edition). A striping and signage plan shall be included with the construction plans and submitted for review and approval by the City Engineer.
- f. All street and traffic control sign posts shall be painted gloss black.
- g. All streets shall be designed to include parkways for street trees. Said parkways shall be at least five feet wide. Each lot shall feature at least two street trees within the parkway, or as deemed appropriate by the City's landscape design consultant. Parkway along side streets on corner lots shall feature at least three shade trees planted within the parkway, or as deemed appropriate by the City's landscape design consultant. Maintenance of these trees shall be the responsibility of the Community Facilities District(CFD). All tree species shall be approved by the City's landscape design consultant and follow the City's landscape design guidelines, prior to planting.
- h. Curb ramps shall be provided at all intersections in conformance with City Standards.
- i. There shall be stamped and colored concrete paving at the B Street entrance to the site, from curb to curb a minimum length of 25 feet
- j. As part of street dedications, developer shall provide corner cut-offs at all street intersections. Corner cut-offs shall be sufficient to provide for sight distances and accommodate curb ramps.
- k. The developer shall, at his expense, obtain "R Value" tests in quantity sufficient to represent all street areas, and have street structural sections designed by a registered civil engineer based on these "R Value" tests. These designs shall be compared to the minimum section given below and approved by the City Engineer.

<u>Street Designation</u>	<u>Minimum Section</u>
Local Street	2" HMA/6" AB CLII AB/6" CNS
Collector Street	3" HMA/8" AB CLII AB/6" CNS

- l. Standard barricades, per City Standard, with reflectors shall be installed at ends of streets abutting undeveloped property and any other locations to be specified by the City Engineer.
- m. The developer shall, at the end of any permanent pavement abutting undeveloped property, install 2"x6" redwood header boards placed prior to street paving.
- n. All knuckles and cul-de-sacs shall be designed in accordance with City Standards.
- o. Temporary paved cul-de-sacs shall be provided at the end of any dead-end streets, planned for future extension, longer than 150'. Minimum radius shall be provided to allow turnaround of emergency equipment.

4) SANITARY SEWER IMPROVEMENTS

- a. The developer shall identify and abandon all existing septic systems per City Standards and any other governing regulations.
- b. The nearest sanitary sewer main available to serve the development is at Englehart and Saginaw. The developer shall connect to this existing sewer. The developer's engineer shall be responsible for verifying the size, location, and elevations of existing improvements. Any alternative routing of sewer service must be approved by the City Engineer and supported by appropriate calculations.
- c. The developer shall install sanitary sewer mains of the size and in the locations indicated below:
 - i. Englehart Avenue: Install 21" sewer main along east side of site to northeast boundary of site.
 - ii. Interior Streets: Install 8" sewer mains throughout development.
- d. The developer shall dedicate a minimum 15' wide easement for all onsite sewer mains not located in otherwise dedicated rights-of-way, if applicable.
- e. The developer shall install one (1) 4" sewer service house branch to each lot within the development in accordance with City Standards.
- f. The developer shall install a 4" sewer service house branch to each lot being surrounded by the existing subdivision.

5) WATER IMPROVEMENTS

- a. The developer shall identify and abandon all existing water wells per City Standards and any other governing regulations.
- b. The developer shall install water mains of the sizes and in the locations indicated below and provide an adequately looped water system. The developer's engineer shall be responsible for verifying the size, location, and elevations of existing improvements.
 - i. Englehart Avenue: Install 12" water main along the east side of the site to the northeast boundary of site.
 - ii. Englehart Avenue: Install 8" water main from the point of connection in Englehart Avenue into the development.
 - iii. Interior Streets: Install 8" water mains throughout development.
- c. The developer shall dedicate a 10' wide easement for all onsite water mains, hydrants, blow-offs, and water meters not located in otherwise dedicated rights-of-way, if applicable.
- d. The developer shall install a City Standard water service, size as necessary, to each lot within the development in accordance with City Standards.

- e. The developer shall install a City Standard landscape water service, size as necessary, to each public landscape area within the development in accordance with City Standards.
- f. The developer shall install one (1) water sampling station in accordance with City Standards. The location shall be determined by the City Engineer.
- g. No water service connection shall be made to the City of Dinuba Water System until a bacteriological report has been accepted by the City Engineer.
- h. Fire hydrants shall be installed at locations approved by the Fire Department. Fire hydrants and curbs shall be painted per City Standards.

6) GRADING AND DRAINAGE

- a. The developer shall, for construction activity prior to clearing, grading or excavation on one (1) acre or more of land area or are part of a larger common plan of development or sale, obtain a NPDES permit and implement Best Available Technology Economically Achievable and Best Conventional Pollutant Control Technology to reduce or eliminate storm water pollution. Plans for these requirements shall be included in the construction plan set and shall be submitted to and approved by the City Engineer.
- b. Plans for the required storm drainage systems shall be prepared by a registered civil engineer and conform to the City of Dinuba Storm Drain Design Guidelines (Attachment 'F'), Developer's engineer shall implement best management practices (BMPs) outlines in the Design Guidelines for peak flow reduction. The BMPs recommended in the report are designed to accommodate either the 85th percentile storm (0.32 inches) or the 100-year, 24-hour storm.
- c. A percolation test signed and sealed by a California registered civil or geotechnical engineer shall demonstrate that BMPs can completely infiltrate within 96 hours.
- d. The developer will be required to design and construct the storm drain master plan basin adjacent to the westerly limits of the subdivision. All storm drain piping necessary for the development will not be reimbursable unless it is necessary for storm drain master plan facilities. City will reimburse the oversized piping costs.
- e. The developer will be required to perform shoulder stabilization on Nebraska Avenue from Englehart Avenue to Viscaya Avenue. This work will be fully reimbursed by the City of Dinuba and the design shall be approved by the City Engineer.
- f. Developer's engineer shall prepare hydrology and hydraulic calculations (H&H) for any proposed storm drain system and submit with the grading plan for review and approval by the City Engineer. Developer's engineer shall consult with City Engineer for calculation requirements.
- g. Grade differentials between lots and adjacent properties shall be adequately shown on the grading plan and shall be treated in a manner in conformance with City Standards. Any retaining walls required 12" or higher shall be masonry or concrete construction and any retaining walls required less than 12" may be

wood, masonry, or concrete construction. All retaining walls shall be designed by a registered civil engineer.

- h. Prior to the approval of grading plan, approvals and permits from the San Joaquin Valley Air Pollution Control District shall be obtained. The Project shall comply with all rules, regulations and conditions of approval imposed by the District.
- i. The developer shall maintain a program of dust control to prevent air pollution as well as discomfort or damage to adjacent and surrounding properties. The developer shall follow all requirements and recommendations made by the San Joaquin Valley Air Pollution Control District for dust and emission reduction.

7) LANDSCAPING AND IRRIGATION

- a. The developer, as a portion of the required tract improvements, shall provide landscaping and irrigation as required herein. The landscaping and irrigation shall be installed in public right-of-way and all other areas reserved for landscaping. Plans for the required landscaping and irrigation systems shall be prepared by an appropriately qualified professional and conform to the City of Dinuba Standard Drawings (Attachment 'C'), Landscape Design Guidelines (Attachment 'D'), Low Impact Development Technical Memo (Attachment 'E'), and the California Model Water Efficiency Ordinance. Public landscaping and irrigation shall be installed in the following locations:
 - i. The developer will be required to construct a park. The plans shall be prepared by a registered landscape architect and shall be approved by the City of Dinuba. The park shall consist of three different play structures, a half-court basketball court, ample lighting, seating, walkways, splashpad, and other various park amenities.
 - ii. Planter strips within all interior streets.
 - iii. Landscaping within median divider on entrance street from Englehart Avenue ("B Street").
- b. The property owner shall request annexation to the City's Community Facilities District (CFD). The property owner acknowledges and agrees that such request serves as a petition pursuant to California State Proposition 218 and no further election will be required for the establishment of the initial assessment. The assessment for each lot must be obtained from the City for the tax year following the recordation of the final map. The property owner shall consent to the first-year assessment and annual increases per the provisions of the CFD. The property owner/developer shall notify all potential lot buyers before they actually purchase a lot that this tract is a part of a CFD. Said notification shall be in a manner approved by the City. The property owner/developer shall supply all necessary assessment diagrams and other pertinent materials for the CFD annually until the entire tract is built out or for three years after annexation to the district, whichever is longer.
- c. The developer shall contact and address all requirements of the Alta Irrigation District (AID). The developer will be required to underground the existing AID (Alta Irrigation District) canal along the frontage of the existing residence currently surrounded by the subdivision. This may also include, but not be limited to, dedicating easements, piping or relocating any existing AID canals or ditches, replacing any existing irrigation piping, concrete lining or improving any existing canals, construction or reconstruction of any

canals, culverts, and bridge crossings. Plans for these requirements and improvements shall be included in the previously required set of construction plans and submitted to and approved by AID prior to the release of any development permits or recording of the final map. If an AID or private irrigation line is proposed to be abandoned, the developer shall provide waivers from AID and all downstream users.

- d. The developer shall indicate on construction drawings the depth, location and type of material of any existing AID irrigation line along the proposed or existing street rights-of-way or onsite. Any existing canals or ditches shall be piped. The material of the existing pipe shall be upgraded to the proper class of rubber gasket pipe at all locations unless otherwise approved by the City Engineer.
- e. All existing onsite agricultural irrigation systems either onsite or within public rights-of-way, whether AID or privately owned shall be identified prior to any construction activity on the site. Service to all downstream users of irrigation water shall be maintained at all times through preservation of existing facilities or, if the existing facilities are required to be relocated, the relocation and replacement of the existing facilities. It is the intent that downstream users not bear any burden as a result of the development. Therefore, the developer shall bear all costs related to modification, relocation, or repair of any existing irrigation facilities resulting from or necessitated by the development. The developer shall identify on the construction plans all existing irrigations systems and their disposition (abandonment, repair, relocation, and or piping) for approval by the City Engineer. The developer shall consult with the AID for any additional requirements for lines to be abandoned, relocated, or piped. The developer shall provide waivers from all users in order to abandon or modify any irrigation systems or for any service interruptions resulting from development activities.

8) MISCELLANEOUS

- a. It shall be the responsibility of the developer to remove all existing structures, trees, shrubs, etc., that are within or encroaching on existing or proposed rights-of-way or easements. Existing street improvements shall be preserved, at the discretion of the City Engineer.
- b. The developer shall provide clean-up, street sweeping and dust control during the construction of the development to the satisfaction of the City Engineer and Public Works Director. A deposit of \$5,000.00 shall be submitted to the City to guarantee compliance. At any time, developer is deemed to be non-compliant by the City Engineer or Public Works Director, the City may draw from said deposit to pay for necessary activities to bring the site into compliance.
- c. The developer shall install monuments at all section corners, quarter section corners, all street centerline intersection points, angle points, and beginning of curves and end of curves on streets adjacent to or within the development. Any existing section corner or property corner monuments damaged or destroyed by the development shall be reset to the satisfaction of the City Engineer. A licensed land surveyor or civil engineer licensed to perform land surveying shall certify the placement of all required monumentation prior to final acceptance
- d. Within five days after the final setting of all monuments has been completed, the engineer or surveyor shall give written notice to the City Engineer that the final monuments have been set. Upon payment to the engineer or surveyor for setting the final monuments, the developer shall present to the City Engineer evidence of the payment and receipt thereof by the engineer or surveyor.

Dinuba City Council
Resolution 2023-16
Montebella Phase 2/3 Tentative Subdivision Map

- e. A deferment, modification, or waiver of any engineering conditions will require the express written approval of the City Engineer.
- f. The conditions given herein are for the entire development. Additional requirements for individual phases may be necessary pending review by the City Engineer.
- g. The developer shall install concrete masonry block walls in accordance with City Standards, with a minimum height of 6'-8" feet above the high side ground elevation, and of a design and color approved by the City of Dinuba Planning Department at the following locations:
 - i. Englehart Ave: South line of lot 32 to north line of lot 34 proceeding west along north line of lot 34 to Plum Street (tapering down to 42 inches high within the required front yard setback.. Also along the south side of Lot 34 from Plum Street east to Englehart Avenue, then north to the northeast corner of Lot 38. Along the south side of Lot 34 the fence shall taper down to 42 inches high within the required front yard setback.
 - ii. Along the entire north side of Saginaw Avenue currently located within the limits of the subdivision.
 - iii. Along the south side of lots 25 to lot 31.
 - iv. Along the south side of Lot 1, parallel to Saginaw Avenue. This fence shall taper to 42 inches high within the required front yard setback area.
 - v. Masonry block walls that retain more than 8" shall be designed by a registered civil engineer.
- h. The project shall comply with the requirements of the Dinuba Fire Department, Dinuba Police Department and the City's solid waste contractor (Pena's Disposal).

9) PLANNING AND DEVELOPMENT

- a. Floor plans and facades of homes shall vary on each lot. No two same floor plans shall be located adjacent to one another. Further, no two of the same front façade designs shall be located adjacent to one another. The developer shall provide a map to the Dinuba Planning Department showing façade types and floor plans of the entire subdivision to ensure consistency with this requirement. Home facades and floor plans are shown in Attachments G-1 through G-5 of the staff report to the City Council.

10) ENVIRONMENTAL MITIGATION MEASURES

Air Quality

AIR - 1) Before a construction permit is issued for the proposed Project, the project applicant, project sponsor, or construction contractor shall submit construction emissions minimization plans to the City of Dinuba for review and approval. The construction emissions minimization plans shall provide reasonably detailed compliance with the following requirements:

Where portable diesel engines are used during construction, all off-road equipment with engines greater than 50 horsepower shall have engines that meet either EPA or CARB Tier 4 Final off-road emission standards except as otherwise specified herein. If engines that comply with Tier 4 Final off-road emission standards are not commercially available, then the

construction contractor shall use the next cleanest piece of off-road equipment (e.g., Tier 4 Interim) that is commercially available. For purposes of this project design feature, “commercially available” shall mean the equipment at issue is available taking into consideration factors such as (i) critical-path timing of construction; and (ii) geographic proximity to the project site of equipment. If the relevant equipment is determined by the project applicant to not be commercially available, the contractor can confirm this conclusion by providing letters from at least two rental companies for each piece of off-road equipment that is at issue.

Biological Resources

BIO - 1) To the extent practicable, construction shall be scheduled to avoid the nesting season, which extends from February through August.

BIO - 2) If it is not possible to schedule construction between September and January, preconstruction surveys for nesting birds shall be conducted by a qualified biologist to ensure that no active nests will be disturbed during Project implementation. A preconstruction survey shall be conducted no more than 14 days prior to the initiation of construction activities. During this survey, the qualified biologist shall inspect all potential nest substrates in and immediately adjacent to the impact area for nests. If an active nest is found close enough to the construction area to be disturbed by these activities, the qualified biologist shall determine the extent of a construction-free buffer to be established around the nest. If work cannot proceed without disturbing the nesting birds, work may need to be halted or redirected to other areas until nesting and fledging are completed or the nest has otherwise failed for non-construction related reasons.

Cultural Resources

CUL – 1 Should evidence of prehistoric archeological resources be discovered during construction, the contractor shall halt all work within 25 feet of the find and the resource shall be evaluated by a qualified archaeologist. If evidence of any archaeological, cultural, and/or historical deposits is found, hand excavation and/or mechanical excavation shall proceed to evaluate the deposits for determination of significance as defined by the CEQA guidelines. The archaeologist shall submit reports, to the satisfaction of the City of Dinuba, describing the testing program and subsequent results. These reports shall identify any program mitigation that the project proponent shall complete in order to mitigate archaeological impacts (including resource recovery and/or avoidance testing and analysis, removal, reburial, and curation of archaeological resources).

CUL – 2 In order to ensure that the proposed project does not impact buried human remains during construction, the project proponent shall be responsible for on-going monitoring of project construction. Prior to the issuance of any grading permit, the project proponent shall provide the City of Dinuba with documentation identifying construction personnel that will be responsible for on-site monitoring. If buried human remains are encountered during construction, further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall be halted until the Tulare County coroner is contacted and the coroner has made the determinations and notifications required pursuant to Health and Safety Code Section 7050.5. If the coroner determines that Health and Safety Code Section 7050.5(c) require that he give notice to the Native American Heritage Commission, then such notice shall be given within 24 hours, as required by Health and Safety Code Section 7050.5(c). In that event, the NAHC will conduct the notifications required by Public Resources Code Section 5097.98. Until the consultations described below have been completed, the landowner shall further ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices where Native American human remains are located, is not disturbed by further

development activity until the landowner has discussed and conferred with the Most Likely Descendants on all reasonable options regarding the descendants' preferences and treatments, as prescribed by Public Resources Code Section 5097.98(b). The NAHC will mediate any disputes regarding treatment of remains in accordance with Public Resources Code Section 5097.94(k). The landowner shall be entitled to exercise rights established by Public Resources Code Section 5097.98(e) if any of the circumstances established by that provision become applicable.

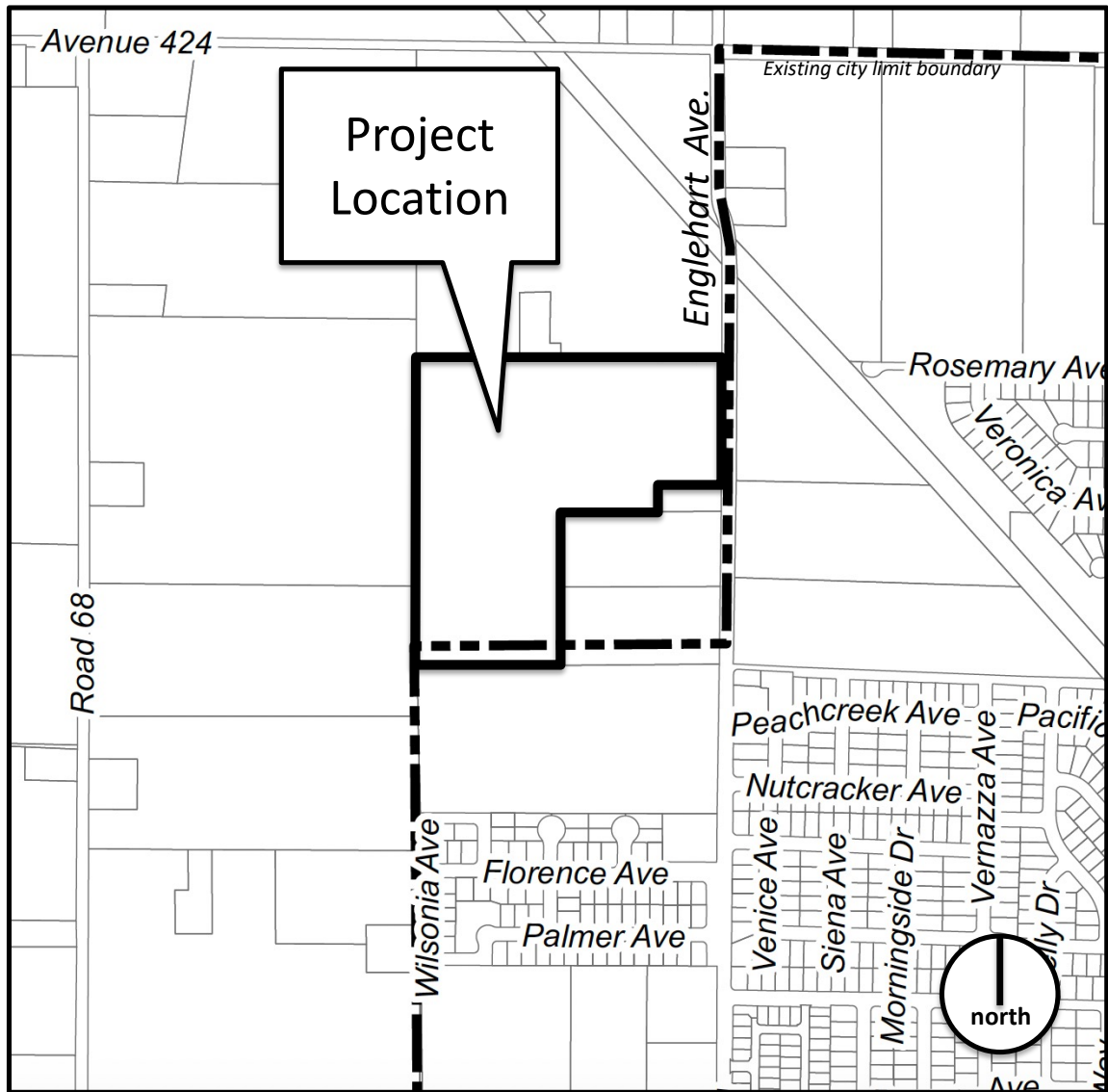
Transportation/Circulation

TRA-1 The Tulare County guidelines include detailed instructions for mitigation if a project has significant impacts. The guidelines state "The preferred method of VMT mitigation in Tulare County is for project applicants to provide transportation improvements that facilitate travel by walking, bicycling, or transit." In accordance with these guidelines, a survey was conducted within a half mile of the Project to determine any pedestrian, bicycle or transit facilities deficiencies exist. After review, there were existing curb returns which do not meet current ADA requirements for ramps. The identified improvements include the following:

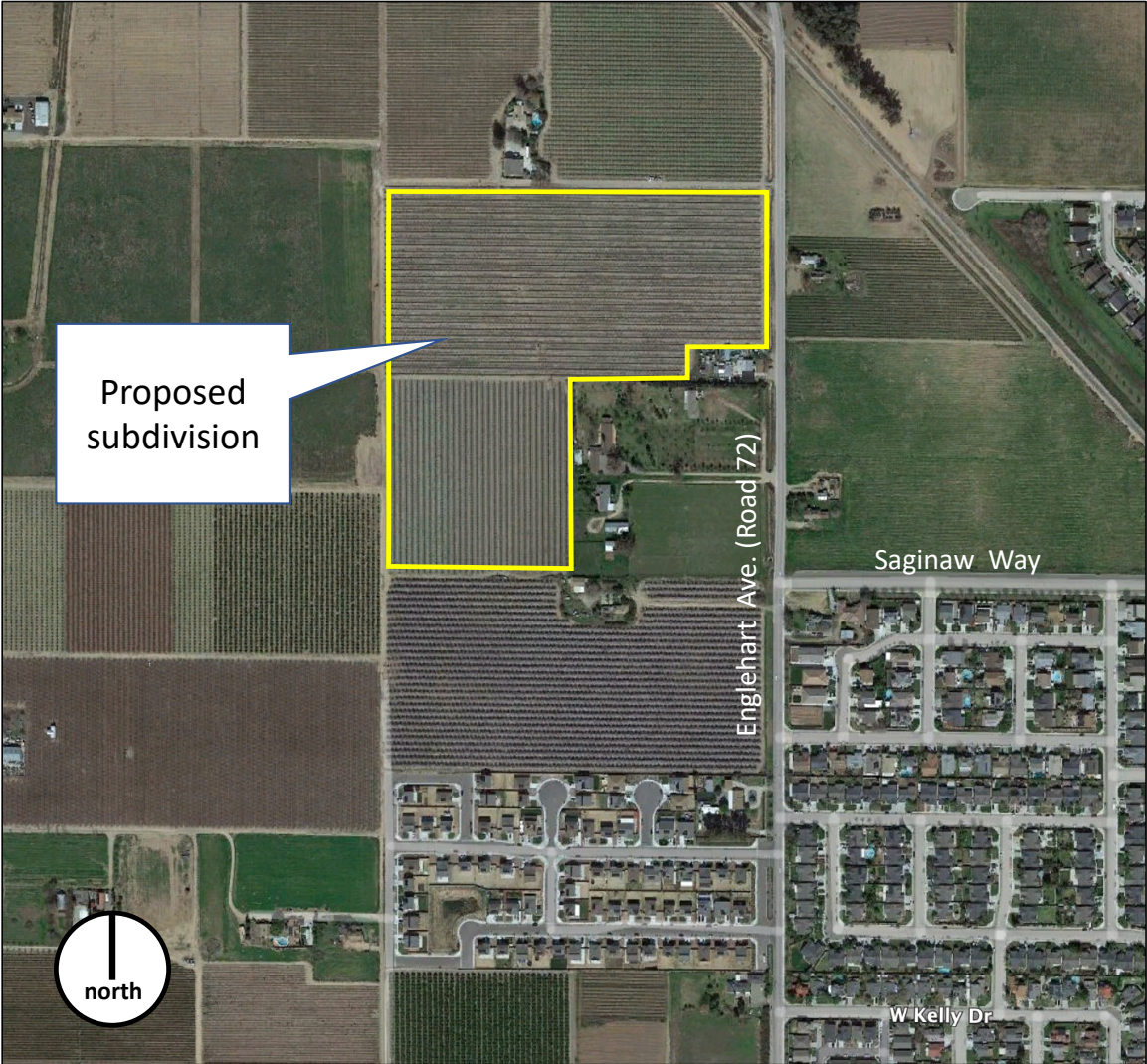
- East side of Adelaide Way & Englehart Avenue (2 ramps)
- East side of Kelly Drive & Englehart Avenue (2 ramps)
- South side of Kelly Drive & Morningside Drive (2 ramps)
- North side of Kelly Drive & Morningside Drive (2 ramps)

Total project cost is estimated at approximately \$24,000 with a 20 percent contingency. The guidelines include a minimum cost for mitigation of \$20 per daily trip generated by the project. The project is anticipated to generate 1055 daily trips, which equates to a target value of improvements of \$21,100. At the time of construction should prices fluctuate, an adjustment in the scope of improvements may need to be made.

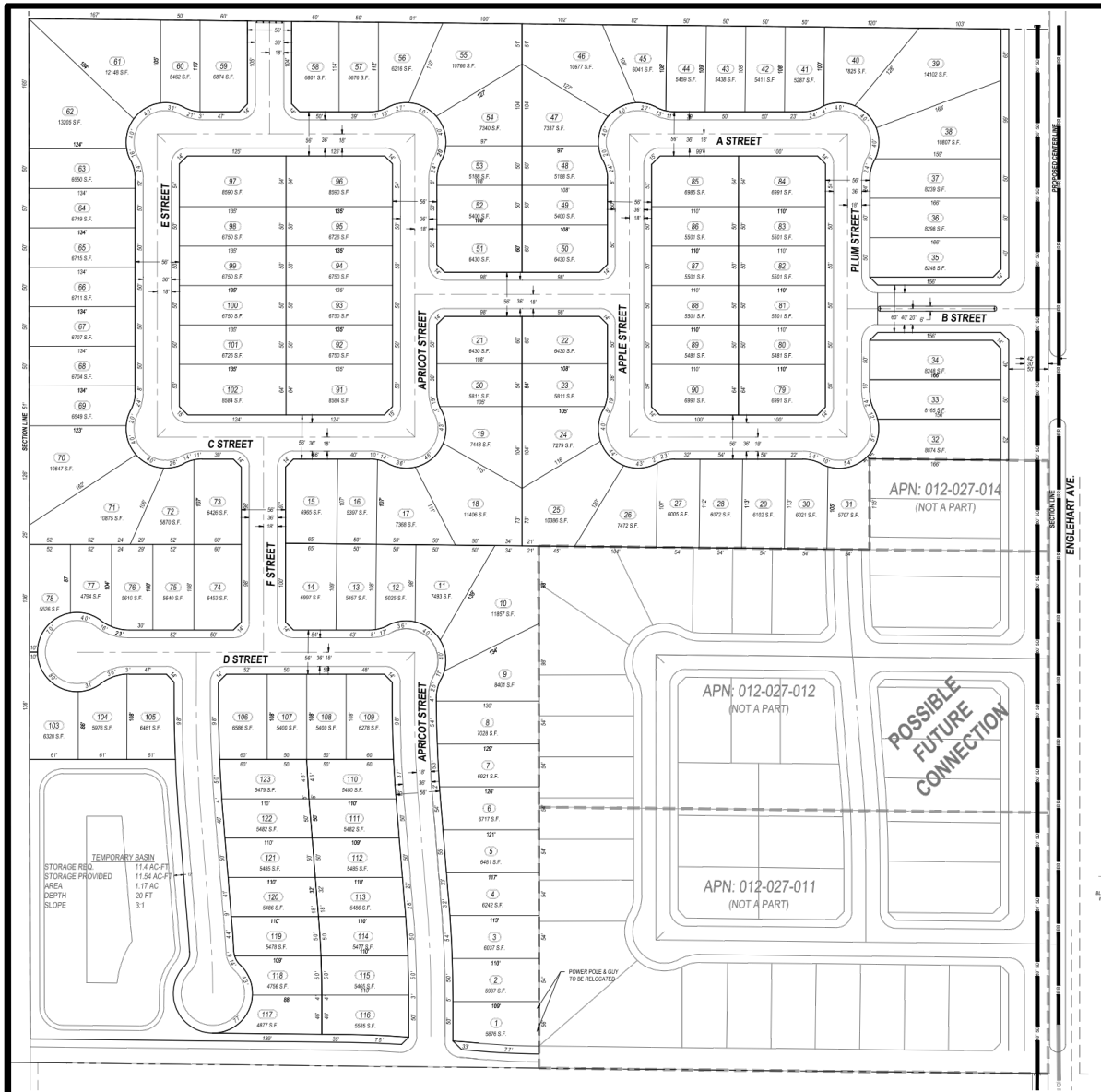
ATTACHMENT "D" Location Map



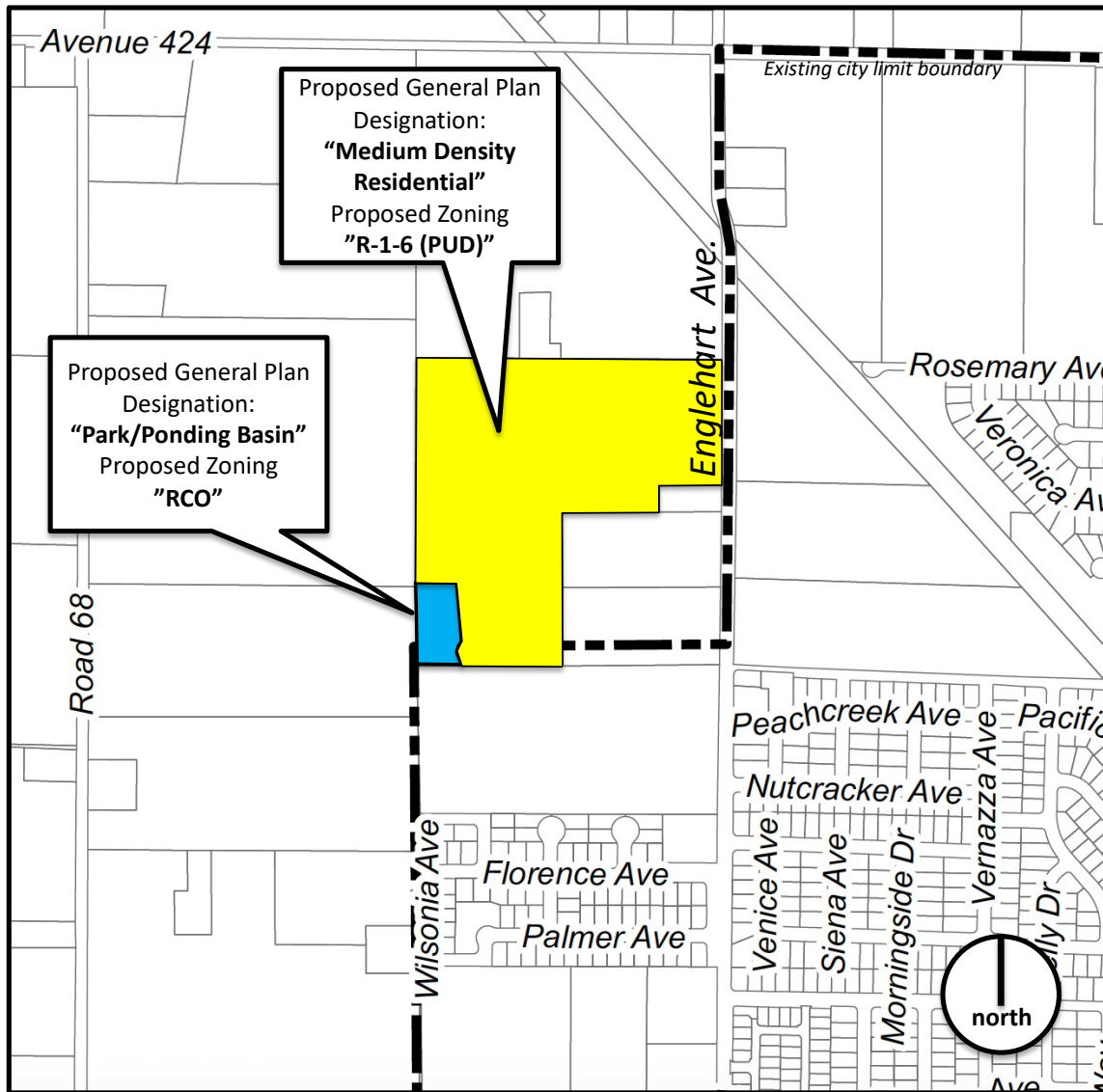
ATTACHMENT "E" Aerial Photo



ATTACHMENT "F" Proposed Subdivision Design



ATTACHMENT "G" Proposed Zoning and Land Use Designations





City Council Staff Report

Department: Planning and Development

March 28, 2023

To: Mayor and City Council

From: Ismael Hernandez, Public Works Director

By: Karl Schoettler, City Planning Consultant

Subject: Public Hearing to consider an application for a Planned Unit Development Tentative Subdivision Map for 27 Single Family Residential lots on a 5.5-acre site south of Kamm Avenue. (KSch)

RECOMMENDATION

City Council conduct a public hearing and adopt the following:

1. Resolution No. 2023-17 (Attachment "A") approving a Vesting Tentative Subdivision Map to create 27 single family residential lots and adoption a Categorical Exemption as the environmental finding for the project.

EXECUTIVE SUMMARY

Public Hearing to consider an application for a Planned Unit Development Tentative Subdivision Map to create 27 Single Family Residential lots on a 5.5-acre site located south of the intersection of Marshall Avenue and Johnson Avenue.

OUTSTANDING ISSUES

None.

DISCUSSION

The project consists of the establishment of a new 27-lot single family residential planned unit development subdivision on a vacant 5.5-acre parcel, generally located south of the intersection of Marshall Avenue and Johnson Avenue (see Attachment "B" (location map) and Attachment "C" (Aerial Photo)) on the southern edge of the City.

The site is zoned "R-1-7.5" (the Single Family Residential zone (7,500 square foot

minimum lot size). The applicant also requested a Conditional Use Permit to apply the “PUD” (Planned Unit Development overlay zone). This zone allows flexibility with respect to zoning standards such as lot size and setbacks, provided the Planning Commission and City Council are able to make a finding that the design is “superior” to what could be achieved under standards of the underlying zone.

It should be noted that the site was previously approved for a 23 lot single family residential subdivision in 2006, however the project was never developed, as the economy worsened.

The site is fairly small, so design options for a subdivision are limited. The proposed subdivision is shown in Attachment "D". Johnson Avenue is proposed to be extended south from the existing stub on the south side of Marshall Avenue, (along the west property boundary of the site). A loop street is also proposed in the middle of the site, with lots fronting on both sides of the street.

As permitted by the PUD zone, the applicant is proposing reduced lot sizes, ranging from 6,001 square feet to 11,034 square feet. The average lot size is 6,478 square feet.

Planned Unit Development zone

The PUD zone can only be applied when the resulting subdivision design is “superior” to what could be achieved with conventional zoning. The findings to approve such a request can be difficult to make but simply getting more and smaller lots is not justification for finding of a superior design. In the past, the City has applied requirements to Planned Unit Development projects (to help make the finding of superior design), and that is the case with this project.

Key upgrades to the project are those that have been required by the Planning Commission and City Council in the most recent PUD projects, and include:

- Tree-lined streets. Parkways will be provided between the curb and sidewalks and street trees established, with root barriers to protect concrete. Trees will be maintained through a landscape contractor with funding from the Landscape and Lighting District established for the project. Trees will shade and cool streets and beautify the neighborhood.
- Pedestrian-scale antique-style street lamps. Antique-style street lamps will be installed to further strengthen the desired pedestrian-oriented character of the project.
- Stamped/colored paving at crosswalks
- Architectural Control of the homes. The adopted Dinuba General Plan strongly recommends that home façade design contributes to the desired pedestrian-oriented character of residential neighborhoods. A large part of this strategy is to reduce the dominance of large, blank garage doors and create more of a human-oriented façade

design. With this concept in mind, it is recommended at least half of the homes in the subdivision feature large, useable front porches with the garage door set at or behind the front plane of the dwelling.

Open Space Requirement

The PUD zone requires that projects set aside 5% of the site for open space. This typically occurs in the form of a park. Five percent of this site would result in an extremely small park (containing about 12,000 square feet (0.3 acre).

Staff does not recommend the installation of such a small park as it would not be very beneficial and would be difficult for the City to maintain. Of note, the applicant is seeking to purchase the 9.6-acre property immediately to the west to develop with a similar (but larger) subdivision and it is recommended that the park acreage from the Rose View site be “shifted” to the adjacent parcel to create a larger park site. This would be more beneficial to residents of the neighborhood, than would be a pocket park.

Utilities

The Public Works Department reports that there is adequate capacity in the City’s water and sewer systems to accommodate the project. Each home will also be assessed the City’s utility development impact fees. Funds accrued by these fees are used for capital improvements within each utility system.

For storm drainage, the project will be required to identify an appropriate site where storm drainage can be channeled. This would most likely be a temporary basin constructed on the vacant property immediately west of the proposed subdivision.

Environmental Analysis

Because of the small size of the site, staff believes the project can be exempted from the requirement to prepare an analysis of potential environmental impacts (per Section 15061 (b) (3) of CEQA which states that where it can be seen with certainty that a project will not have significant impacts, then an analysis is not required.

Planning Commission Hearing

The Planning Commission conducted a public hearing to consider the proposed subdivision on March 7, 2023. Some members of the Commission voiced concern about a perceived lack of street access to the site and that existing surrounding neighborhoods could be burdened by traffic going to and from the subdivision (especially streets to the north that connect to Kamm Avenue). The Commission also asked whether Avenue 406 could be extended west from College Avenue to provide additional street connectivity to the site.

Staff explained that this particular site is saddled with several burdens, including

- A lack of direct access to the site through adjoining subdivisions,
- The adjoining subdivisions have very circuitous street patterns
- It would be costly and difficult to extend Avenue 408 to the site due to the presence of a large concrete irrigation structure in the ground on the west side of the intersection of College Avenue and Avenue 408. This structure would have to be relocated to install a road that intersects College Avenue properly. In addition, the project would have to buy offsite land to connect the roadway to College Avenue. This could be financially difficult for such a small project.

Following discussion, the Commission concluded there is adequate access through the site and that when adjacent parcels (to the west and south) are developed, the City will need to pay close attention to facilitate improved access.

CONSULTATION/PUBLIC COMMENT

As required by municipal code, the City mailed notices of the proposed use and public hearing to property owners within 300 feet of the site, and tenants within 100 feet of the site. As of the writing of this staff report, no inquiries had been made.

FINDINGS

The use complies with the required Findings of the Dinuba Municipal Code for application of the PUD (Planned Unit Development) zone, and Tentative Subdivision Map contained in the attached resolutions.

BACKGROUND INFORMATION

Applicant: 247X Group, Inc.

Location: South of the intersection of Marshall Avenue and Johnson Avenue

Assessor Parcel Number: 030-120-077

Site Size: The subject parcel contains approximately 5.5± acres

Zoning: R-1-7.5 (Single Family Residential – 7,500 square foot minimum lot size)

General Plan: “Medium-Low Density Residential”

Existing Land Use: Vacant land

ADJACENT LAND USES, ZONING, AND GENERAL PLAN DESIGNATIONS

Direction	Current Use	Zoning	General Plan

North	Single family residential neighborhoods	R-1-7.5	"Medium Low Density Residential"
South	Agriculture	AE-20 (Tulare County agriculture zoning)	"Medium Low Density Residential"
East	Single family residential	R-1-7.5	"Medium Low Density Residential"
West	Vacant land	R-1-7.5	"Medium Low Density Residential"

FISCAL IMPACT

Each lot will pay City Development Impact Fees upon development.

PUBLIC HEARING

A public hearing notice was published in the Fresno Bee and mailed to property owners within 300 feet of the site, and occupants within 100 feet of the site.

ATTACHMENTS:

- A. Resolution 2023-17 (Vesting Tentative Subdivision Map)
- B. Location Map
- C. Aerial Photo
- D. Proposed Subdivision Map

ATTACHMENT "A"

RESOLUTION NO 2023-17

**BEFORE THE CITY COUNCIL
CITY OF DINUBA
COUNTY OF TULARE, STATE OF CALIFORNIA**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF DINUBA APPROVING A PLANNED
UNIT DEVELOPMENT VESTING TENTATIVE SUBDIVISION MAP (ROSE VIEW ESTATES) TO
CREATE 27 SINGLE FAMILY RESIDENTIAL LOTS**

WHEREAS, a request was submitted by the applicant (247X Group, Inc.) for approval of a Vesting Tentative Subdivision Map to establish a 27-lot single family residential Planned Unit Development on a 5.5-acre site generally located south of the intersection of Marshall Avenue and Johnson Avenue. The Assessor Parcel Number of the subject parcel is 030-120-077, and

WHEREAS, the site has received approval of a Conditional Use Permit to establish the "PUD" (Planned Unit Development) overlay zone designation, which allows flexibility with respect to zoning standards such as lot size, density and setbacks, and

WHEREAS, the Planning Commission conducted a public hearing on March 7, 2023 to consider the project and voted unanimously to recommend approval, and

WHEREAS, property owners within 300 feet and occupants within 100 feet of the subject parcels were notified of the City Council's meeting and a public hearing notice was published ten (10) days prior to the City Council's meeting, and

WHEREAS, the Planning Department has prepared a staff report and environmental finding, and

WHEREAS, the City Council held a public hearing on this action and accepted testimony.

NOW, THEREFORE, BE IT RESOLVED that the City Council, after considering all the evidence presented, determined the following findings were relevant in evaluating this request:

1. The proposed Vesting Tentative Subdivision Map is consistent with the goals, objectives and policies of the Dinuba General Plan.

Dinuba City Council
Resolution 2023-17

Rose View Estates Vesting Tentative Subdivision Map

2. The City has determined the project will have no significant impacts and is exempt from review for environmental impacts consistent with Section 15061 (b) (3) (General Exemptions) of the California Environmental Quality Act (CEQA)

3. The proposed project will not have an adverse impact on the health, safety and welfare of residents in the neighborhood or community.

4. The proposed Tentative Subdivision Map is superior in design compared to what could be achieved by utilizing the standards of the base R-1-7.5 zone.

4. The Vesting Tentative Subdivision Map (shown in Exhibit "A" (and on file with the Dinuba Public Works Department)) is subject to conditions of approval listed in Exhibit "B".

NOW, THEREFORE BE IT RESOLVED THAT the Rose View Estates Vesting Tentative Subdivision Map is hereby approved by the Dinuba City Council.

The foregoing resolution was adopted upon a motion of Council member _____, second by Council member _____, at a regular meeting of the Dinuba City Council on the 28th day of March, 2023, by the following roll call vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

Maribel Reynosa, Mayor of the City of Dinuba

ATTEST:

Maria Ananiz, City Clerk

Exhibit "A" "Rose View Estates" Vesting Tentative Subdivision Map

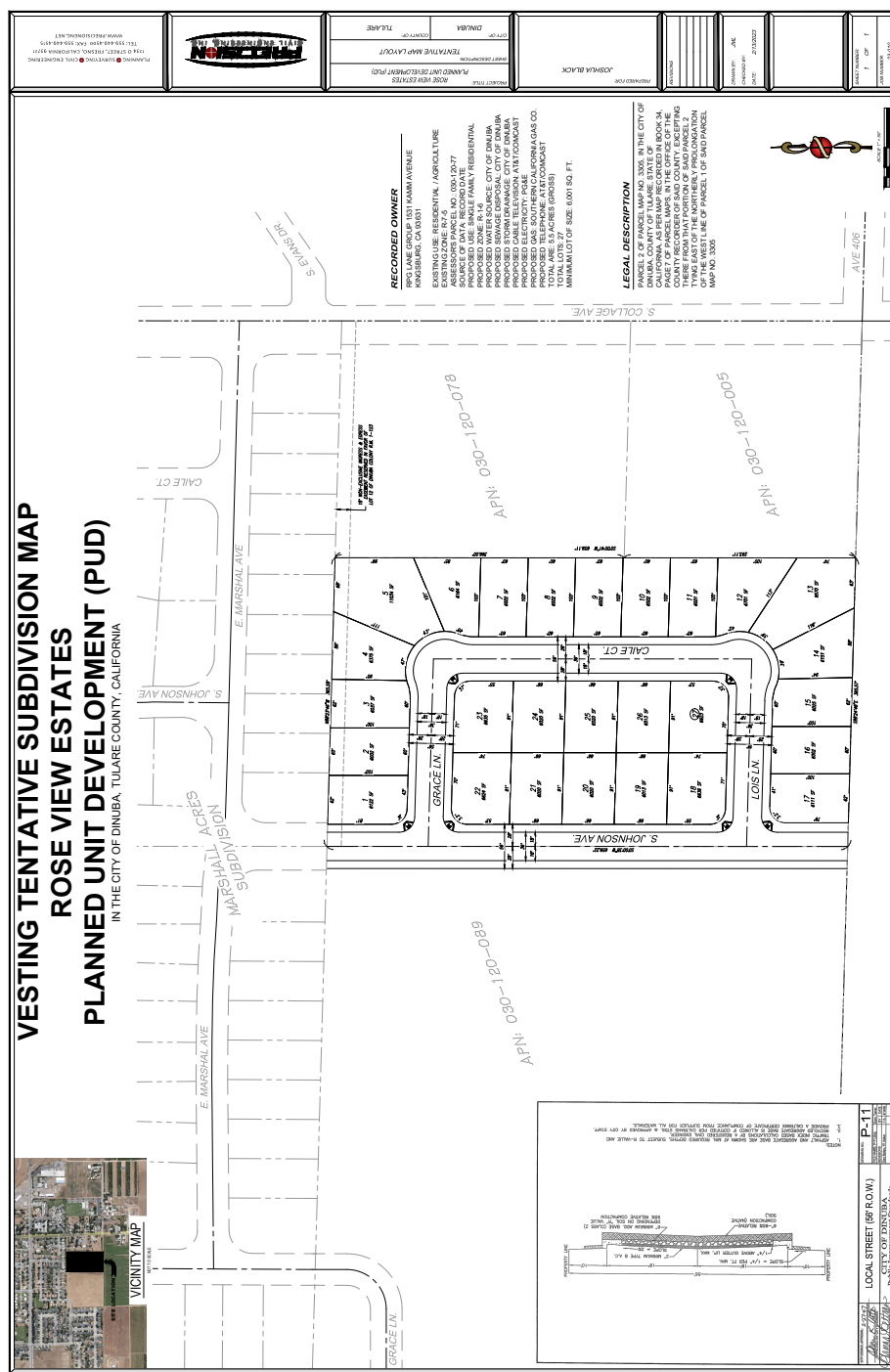


Exhibit "B": Conditions of Approval

1) MAPS AND PLANS

- a. The developer shall have a final tract map prepared, in the form prescribed by the Subdivision Map Act and City of Dinuba Municipal Code, by a registered civil engineer or licensed land surveyor. The final tract map shall be digitally submitted to the City of Dinuba Public Works Department. The City maintains a "Final Map Submittal Requirements & Review Checklist" as a resource.
- b. The developer shall digitally submit to the City of Dinuba Public Works Department, a set of construction plans on 24" x 36" sheets for all required improvements. These plans shall be prepared by a registered civil engineer. All applicable plan check and inspection fees shall be paid with the first submittal of plans. All plans shall be approved by the City and all other involved agencies prior to the release of any development permits. The City maintains an "Improvement Plan Submittal Requirements & Review Checklist" as a resource.
- c. Prior to beginning any construction, or within twenty (20) calendar days after the approved plans are released by the City, the developer shall submit to the City of Dinuba Public Works Department one (1) reproducible/electronic copy (PDF) and two (2) black line copies of the approved set of construction plans, and two (2) bound sets of the approved construction specifications, if any.
- d. Within twenty (20) calendar days after all improvements have been constructed and accepted by the City, the developer shall submit to the City of Dinuba Public Works Department one (1) reproducible/electronic copy (PDF) and two (2) black line copies of the approved set of construction plans revised to reflect all field revisions and marked "AS-BUILT" for review and approval. As-Built drawings shall be revised in electronic format, a scanned or field copy of the construction plans will not be accepted. Pad Certification(s) will be required prior to construction of any structure on a lot.

2) GENERAL

- a. The developer shall comply with all conditions set forth in Title 16 of the Dinuba Municipal Code (Subdivisions).
- b. The conditions of project approval set forth herein include certain fees, dedication requirements, reservation requirements and other exactions. Pursuant to Section 66020(d) of the Government Code, these conditions constitute written notice of the amount of such fees, and a description of the dedications, reservations, and other exactions. The applicant is hereby notified that the 90day protest period, commencing from the date of approval of the project, has begun. If the applicant fails to file a protest regarding any of the fees, dedication requirements, reservation requirements or other exactions contained in this notice, complying with all the requirements of Section 66020, the applicant will be legally barred from later challenging such exactions.
- c. Applicant shall pay all applicable development impact fees at the rate in effect at the time of payment. The developer may be eligible for fee credits or fee reimbursements for over-sizing of facilities or construction of other eligible facilities included in the applicable City

Dinuba City Council
Resolution 2023-17

Rose View Estates Vesting Tentative Subdivision Map

- of Dinuba's Impact Fee Study(s). The City Engineer will determine the type and extent of improvements that are eligible for fee credits or reimbursements.
- d. The developer shall furnish security in a sum to be determined by the City Engineer, prior to final acceptance of the off-site improvements by the City, for the guarantee and warranty of the improvements for a period of one (1) year following the completion and acceptance thereof by the City Council.
 - e. The developer shall submit a soils report for approval by the City Engineer with the first submittal of the improvement plans.
 - f. The developer shall comply with all the requirements of the local utility (gas and electric), telephone, cable, and other communication companies. It shall be the responsibility of the developer to notify the local utility, telephone, cable, and other communication companies to remove or relocate utility poles where necessary. The City will not accept first submittal of improvement plans without proof that the developer has provided the improvement plans and documents showing all proposed work to the utility, telephone, cable, and other communication companies.
 - g. The developer shall contact and address all requirements of the United States Postal Service for the location and type of mailboxes to be installed. The location of the facilities shall be approved by the City Engineer prior to approval of improvement plans or any construction.
 - h. The developer shall comply with and be responsible for obtaining encroachment permits from the City of Dinuba for all work performed within the City's right-of-way and easements.
 - i. The developer shall install all improvements within public right-of-way and easements in accordance with the City of Dinuba standards, specifications, master plans, and record drawings.
 - j. All existing overhead and any new utility facilities located on-site, and within the street right-of-way or easements along the streets adjacent to this tract shall be undergrounded unless otherwise approved by the City Engineer.
 - k. The developer shall provide and pay for all compaction testing required by the QAP (Quality Assurance Plan). Compaction test results shall be submitted to the City Engineer for review and approval.
 - l. If the overall development is to be built in phases, then each phase shall have adequate access as required by the City of Dinuba Police and Fire Departments, and the City Engineer. The developer shall submit a schedule showing the sequence of development within the area covered by the tentative map.
 - m. During the site construction, any public streets fronting the project shall be kept clear of any construction or landscaping debris and shall not be used as a storage area for equipment, materials, or other items.
 - n. In order to provide for reasonable municipal protection during all phases of construction, the developer shall maintain pedestrian and vehicular access to all surrounding properties and buildings to the satisfaction of the City of Dinuba Police and Fire Department, and City Engineer.
 - o. The developer shall be responsible for all actions of his contractors and subcontractors during the course of any work occurring on the site. The developer shall designate, in

- writing before starting work, an authorized representative who shall have complete authority to represent and to act for the developer. Said authorized representative shall be present at the site of the work at all times while work is actually in progress on the development. During periods when work is suspended, arrangements acceptable to the City Engineer shall be made for any emergency work which may be required. When the developer or his authorized representative is not present on any particular part of the work where it may be desired to give directions, orders may be given by the City Engineer which shall be received and obeyed by the person or persons in charge of the particular work in reference to which the orders are given. Whenever orders are given to the developer's representative or superintendent or foreman to do work required for the convenience and safety of the general public because of inclement weather or any other such cause, such work shall be done at the developer's expense.
- p. The developers contractors shall not work on, place debris on, store supplies or equipment on, or in any other way encroach upon any other properties without the written permission of such property owners. In the event other properties are encroached upon without written permission, work shall be automatically shut down until resolved.

3) DEDICATIONS AND STREET IMPROVEMENTS

- a. The developer shall provide right-of-way acquisition or dedicate free and clear of all encumbrances and/or improve all streets to City standards:
- i. 56' Interior Residential Streets:
 - (1) Dedicate 56' for public street and utility purposes.
 - (2) Construct improvements as shown on the Tentative Map. Improvements shall include curb and gutter, sidewalk, drive approaches, curb ramps, street lights, and permanent paving.
 - ii. Improvements shall include curb and gutter, parkways with street trees, sidewalk, drive approaches, curb ramps, street lights, landscape and irrigation, and permanent paving.
- b. Developer shall dedicate a 6'-10' public utility easement (width as required by affected utility companies) along all streets and all other locations requested by utility companies. Alternate widths must be approved in writing by all utility companies and a copy of said written approval shall be submitted to the City Engineer.
- c. Developer shall provide a preliminary title report, legal description, and drawings for all dedications required which are not within the boundary of the subdivision.
- d. The developer shall install pedestrian-scale antique-style streetlights in accordance with City Standards at the locations designated by the City Engineer. Streetlight locations shall be shown on the utility plans submitted with the final map for approval. Streetlights at traffic signal locations shall be installed on approved traffic signal poles. Streetlights shall be owned and maintained by City of Dinuba. Developer shall prepare a street lighting plan for approval by the City Engineer.
- e. Developer shall provide for all striping, stenciling, pavement markers, delineators and signage required of all street improvements within the development. All traffic signs and street name signs shall be installed in accordance with City Standards and the CA MUTCD (latest edition). A striping and signage plan shall be included with the construction plans and submitted for review and approval by the City Engineer.
- f. All street and traffic control sign posts shall be painted gloss black.

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- g. All streets shall be designed to include parkways for street trees. Said parkways shall be at least five feet wide. Each lot shall feature at least two street trees within the parkway, or as deemed appropriate by the City's landscape design consultant. Parkway along side streets on corner lots shall feature at least three shade trees planted within the parkway, or as deemed appropriate by the City's landscape design consultant. Maintenance of these trees shall be the responsibility of the Community Facilities District(CFD). All tree species shall be approved by the City's landscape design consultant and follow the City's landscape design guidelines, prior to planting.
- h. Curb ramps shall be provided at all intersections in conformance with City Standards.
- i. The project shall install stamped concrete crosswalks at locations identified by the City Engineer.
- j. As part of street dedications, developer shall provide corner cut-offs at all street intersections. Corner cut-offs shall be sufficient to provide for sight distances and accommodate curb ramps.
- k. The developer shall, at his expense, obtain "R Value" tests in quantity sufficient to represent all street areas, and have street structural sections designed by a registered civil engineer based on these "R Value" tests. These designs shall be compared to the minimum section given below and approved by the City Engineer.

<u>Street Designation</u>	<u>Minimum Section</u>
Local Street	2" HMA/6" AB CLII AB/6" CNS

- l. Standard barricades, per City Standard, with reflectors shall be installed at ends of streets abutting undeveloped property and any other locations to be specified by the City Engineer.
- m. The developer shall, at the end of any permanent pavement abutting undeveloped property, install 2"x6" redwood header boards placed prior to street paving.
- n. All knuckles and cul-de-sacs shall be designed in accordance with City Standards.
- o. Temporary paved cul-de-sacs shall be provided at the end of any dead-end streets, planned for future extension, longer than 150'. Minimum radius shall be provided to allow turnaround of emergency equipment.

4) SANITARY SEWER IMPROVEMENTS

- a. The developer shall identify and abandon all existing septic systems per City Standards and any other governing regulations.
- b. The nearest sanitary sewer main available to serve the development is at Johnson Avenue on the northly side of the future development. The developer shall connect to this existing sewer. The developer's engineer shall be responsible for verifying the size, location, and elevations of existing improvements. Any alternative routing of sewer service must be approved by the City Engineer and supported by appropriate calculations.

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- c. The developer shall install sanitary sewer mains of the size and in the locations indicated below:
 - i. Interior Streets: Install 8" sewer mains throughout development.
- d. The developer shall dedicate a minimum 15' wide easement for all onsite sewer mains not located in otherwise dedicated rights-of-way, if applicable.
- e. The developer shall install one (1) 4" sewer service house branch to each lot within the development in accordance with City Standards.

5) WATER IMPROVEMENTS

- a. The developer shall identify and abandon all existing water wells per City Standards and any other governing regulations.
- b. The developer shall install water mains of the sizes and in the locations indicated below and provide an adequately looped water system. The developer's engineer shall be responsible for verifying the size, location, and elevations of existing improvements.
 - i. Interior Streets: Install 8" water mains throughout development.
- c. The developer shall dedicate a 10' wide easement for all onsite water mains, hydrants, blow-offs, and water meters not located in otherwise dedicated rights-of-way, if applicable.
- d. The developer shall install a City Standard water service, size as necessary, to each lot within the development in accordance with City Standards.
- e. The developer shall install a City Standard landscape water service, size as necessary, to each public landscape area within the development in accordance with City Standards.
- f. No water service connection shall be made to the City of Dinuba Water System until a bacteriological report has been accepted by the City Engineer.
- g. Fire hydrants shall be installed at locations approved by the Fire Department. Fire hydrants and curbs shall be painted per City Standards.

6) GRADING AND DRAINAGE

- a. The developer shall, for construction activity prior to clearing, grading or excavation on one (1) acre or more of land area or are part of a larger common plan of development or sale, obtain a NPDES permit and implement Best Available Technology Economically Achievable and Best Conventional Pollutant Control Technology to reduce or eliminate storm water pollution. Plans for these requirements shall be included in the construction plan set and shall be submitted to and approved by the City Engineer.
- b. Plans for the required storm drainage systems shall be prepared by a registered civil engineer and conform to the City of Dinuba Storm Drain Design Guidelines (Attachment 'F'), Developer's engineer shall implement best management practices (BMPs) outlines in the Design Guidelines for peak flow reduction. The

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BMPs recommended in the report are designed to accommodate either the 85th percentile storm (0.32 inches) or the 100-year, 24-hour storm.

- c. A percolation test signed and sealed by a California registered civil or geotechnical engineer shall demonstrate that BMPs can completely infiltrate within 96 hours.
- d. The developer will be required to design and construct a retention basin along the west side of Johnson Avenue to accommodate the storm drainage generated by the development. Developer shall follow the City's storm drain design guidelines. All storm drain piping necessary for the development will not be reimbursable unless it is necessary for storm drain master plan facilities. City will reimburse the oversized piping costs.
- e. Developer's engineer shall prepare hydrology and hydraulic calculations (H&H) for any proposed storm drain system and submit with the grading plan for review and approval by the City Engineer. Developer's engineer shall consult with City Engineer for calculation requirements.
- f. Grade differentials between lots and adjacent properties shall be adequately shown on the grading plan and shall be treated in a manner in conformance with City Standards. Any retaining walls required 12" or higher shall be masonry or concrete construction and any retaining walls required less than 12" may be wood, masonry, or concrete construction. All retaining walls shall be designed by a registered civil engineer.
- g. Prior to the approval of grading plan, approvals and permits from the San Joaquin Valley Air Pollution Control District shall be obtained. The Project shall comply with all rules, regulations and conditions of approval imposed by the District.
- h. The developer shall maintain a program of dust control to prevent air pollution as well as discomfort or damage to adjacent and surrounding properties. The developer shall follow all requirements and recommendations made by the San Joaquin Valley Air Pollution Control District for dust and emission reduction.

7) LANDSCAPING AND IRRIGATION

- a. The developer, as a portion of the required tract improvements, shall provide landscaping and irrigation as required herein. The landscaping and irrigation shall be installed in public right-of-way and all other areas reserved for landscaping. Plans for the required landscaping and irrigation systems shall be prepared by an appropriately qualified professional and conform to the City of Dinuba Standard Drawings (Attachment 'C'), Landscape Design Guidelines (Attachment 'D'), Low Impact Development Technical Memo (Attachment 'E'), and the California Model Water Efficiency Ordinance. Public landscaping and irrigation shall be installed in the following locations:
 - i. Planter strips within all interior streets. Street trees shall be maintained (including periodic pruning and tree replacement) by the Community Facilities District.
- b. The property owner shall request annexation to the City's Community Facilities District (CFD). The property owner acknowledges and agrees that such request serves as a petition pursuant to California State Proposition 218 and no further election will be

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required for the establishment of the initial assessment. The assessment for each lot must be obtained from the City for the tax year following the recordation of the final map. The property owner shall consent to the first-year assessment and annual increases per the provisions of the CFD. The property owner/developer shall notify all potential lot buyers before they actually purchase a lot that this tract is a part of a CFD. Said notification shall be in a manner approved by the City. The property owner/developer shall supply all necessary assessment diagrams and other pertinent materials for the CFD annually until the entire tract is built out or for three years after annexation to the district, whichever is longer.

- c. The developer shall contact and address all requirements of the Alta Irrigation District (AID). This may also include, but not be limited to, dedicating easements, piping or relocating any existing AID canals or ditches, replacing any existing irrigation piping, concrete lining or improving any existing canals, construction or reconstruction of any canals, culverts, and bridge crossings. Plans for these requirements and improvements shall be included in the previously required set of construction plans and submitted to and approved by AID prior to the release of any development permits or recording of the final map. If an AID or private irrigation line is proposed to be abandoned, the developer shall provide waivers from AID and all downstream users.
- d. The developer shall indicate on construction drawings the depth, location and type of material of any existing AID irrigation line along the proposed or existing street rights-of-way or onsite. Any existing canals or ditches shall be piped. The material of the existing pipe shall be upgraded to the proper class of rubber gasket pipe at all locations unless otherwise approved by the City Engineer.
- e. All existing onsite agricultural irrigation systems either onsite or within public rights-of-way, whether AID or privately owned shall be identified prior to any construction activity on the site. Service to all downstream users of irrigation water shall be maintained at all times through preservation of existing facilities or, if the existing facilities are required to be relocated, the relocation and replacement of the existing facilities. It is the intent that downstream users not bear any burden as a result of the development. Therefore, the developer shall bear all costs related to modification, relocation, or repair of any existing irrigation facilities resulting from or necessitated by the development. The developer shall identify on the construction plans all existing irrigations systems and their disposition (abandonment, repair, relocation, and or piping) for approval by the City Engineer. The developer shall consult with the AID for any additional requirements for lines to be abandoned, relocated, or piped. The developer shall provide waivers from all users in order to abandon or modify any irrigation systems or for any service interruptions resulting from development activities.

8) MISCELLANEOUS

- a. It shall be the responsibility of the developer to remove all existing structures, trees, shrubs, etc., that are within or encroaching on existing or proposed rights-of-way or easements. Existing street improvements shall be preserved, at the discretion of the City Engineer.
- b. The developer shall provide clean-up, street sweeping and dust control during the construction of the development to the satisfaction of the City Engineer and Public Works Director. A deposit of \$5,000.00 shall be submitted to the City to guarantee compliance. At any time, developer is deemed to be non-compliant by the City Engineer or Public

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Works Director, the City may draw from said deposit to pay for necessary activities to bring the site into compliance.

- c. The developer shall install monuments at all section corners, quarter section corners, all street centerline intersection points, angle points, and beginning of curves and end of curves on streets adjacent to or within the development. Any existing section corner or property corner monuments damaged or destroyed by the development shall be reset to the satisfaction of the City Engineer. A licensed land surveyor or civil engineer licensed to perform land surveying shall certify the placement of all required monumentation prior to final acceptance
- d. Within five days after the final setting of all monuments has been completed, the engineer or surveyor shall give written notice to the City Engineer that the final monuments have been set. Upon payment to the engineer or surveyor for setting the final monuments, the developer shall present to the City Engineer evidence of the payment and receipt thereof by the engineer or surveyor.
- e. A deferment, modification, or waiver of any engineering conditions will require the express written approval of the City Engineer.
- f. The conditions given herein are for the entire development. Additional requirements for individual phases may be necessary pending review by the City Engineer.
- g. The developer shall install concrete masonry block walls in accordance with City Standards, with a minimum height of 6'-8" feet above the high side ground elevation, and of a design and color approved by the City of Dinuba Planning Department at the following locations:
 - i. Along the entire east (Lots 5-13) and south (Lots 13-17) side of the development.
 - ii. Masonry block walls that retain more than 8" shall be designed by a registered civil engineer.
- h. The project shall comply with the requirements of the Dinuba Fire Department, Dinuba Police Department and the City's solid waste contractor (Pena's Disposal).

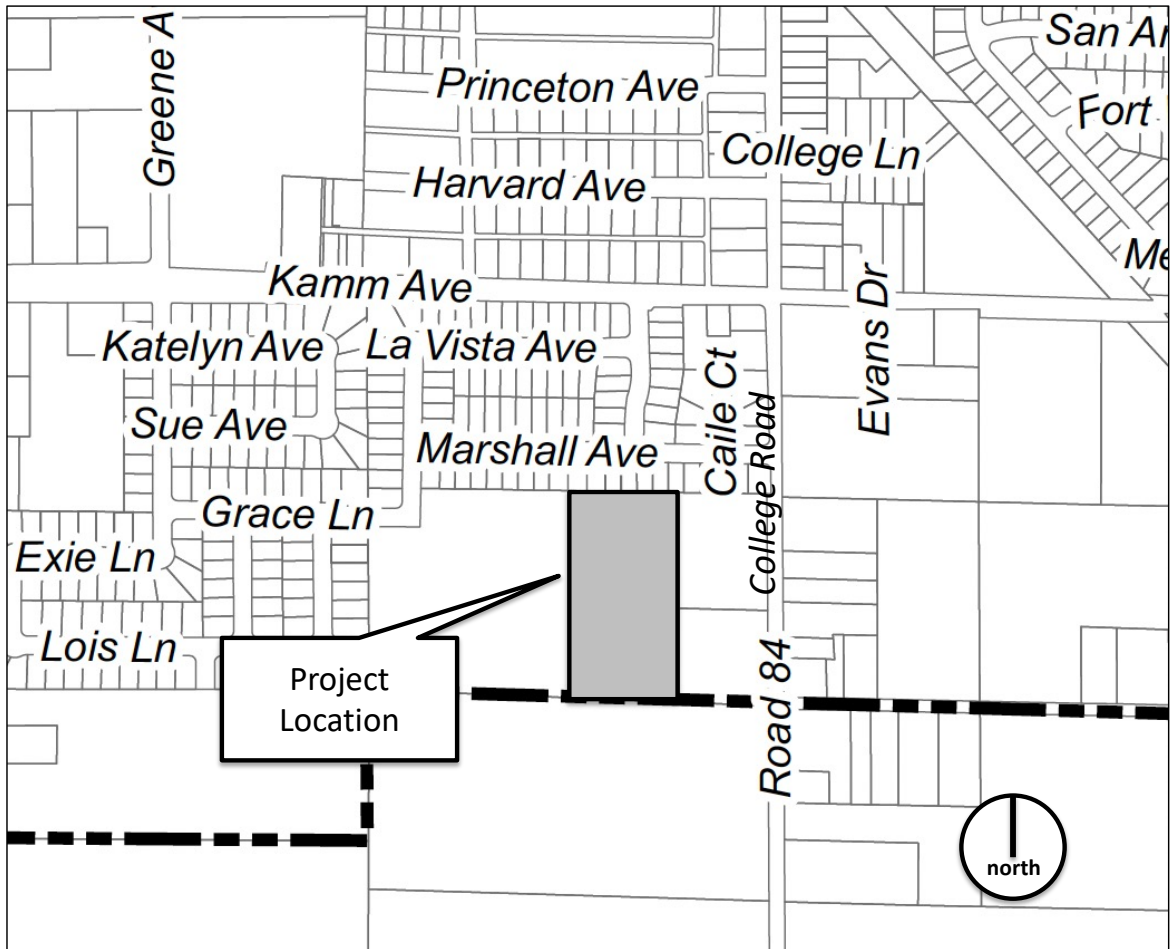
9) PLANNING AND DEVELOPMENT

- a. Homes developed in the subdivision are subject to architectural review by the City, including:
 - i. At least fifty percent of the homes shall feature front facades with a large, useable covered front porch measuring at least 8 feet wide and 6 feet deep.
 - ii. Garage doors on the homes shall be set even or behind the front plane of the dwelling.
 - iii. Floor plans and facades of homes shall vary on each lot.
 - iv. No two same floor plans shall be located adjacent to one another.
 - v. No two of the same front façade designs shall be located adjacent to one another.
 - vi. The developer shall provide a map to the Dinuba Planning Department showing façade types and floor plans of the entire subdivision to ensure consistency with this requirement.
- b. The project shall transfer its 5% open space requirement to a subdivision associated with development of the 9.7-acre parcel immediately to the west (APN 030-120-089 (being purchased by the applicant)) and that open space acreage shall be combined with open

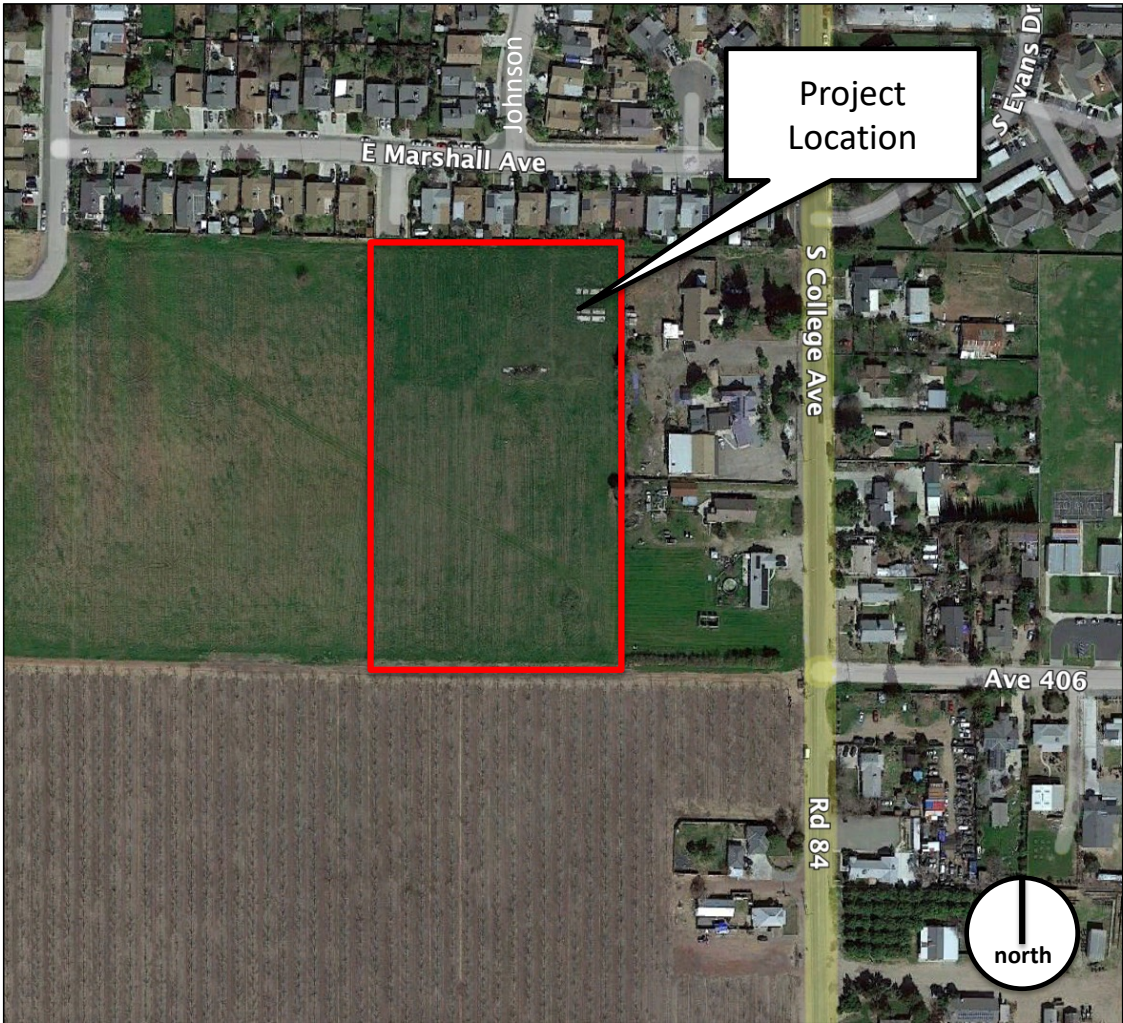
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space required from the 9.7-acre site, for a combined open space feature centrally located within the development. In the event the applicant is unable to secure the site to the west, then the open space requirement shall be maintained and developed on the subject 5.5-acre site, or an agreement signed to transfer the open space to another useable, beneficial site. Until that determination is made, at least two of the contiguous residential lots on the 5.5-acre site shall remain undeveloped.

ATTACHMENT "B" Location Map



ATTACHMENT "C" Aerial Photo



ATTACHMENT "D" Proposed Subdivision Map





City Council Staff Report

Department: FIRE SERVICES

March 28, 2023

To: Mayor and City Council

From: Jordan Webster, Fire Chief

Subject: Approval of Education and Training Affiliation Agreement between the City of Dinuba and Valley Regional Occupational Program (VROP) and Adoption of Resolution No. 2023-14 Approving a Budget Amendment to Fund the Fire Training Facility in FY 2022-23 (JORW)

RECOMMENDATION

Council to take the following actions by one motion and one vote:

1. Approve the Education and Training Affiliation Agreement between the City of Dinuba and Valley Regional Occupational Program and authorizing the City Manager or designee to execute the agreement; and,
2. Adopt Resolution No. 2023-14 approving budget amendment No. 2023-14 allocating \$400,000 from the Ambulance Fund for the project in the FY 2022-23 budget.

EXECUTIVE SUMMARY

The City of Dinuba Fire Department and Valley Regional Occupational Program (VROP) are proposing to enter into a partnership for the construction of a state-of-the-art fire education and training facility to be located on city-owned property south of the Public Works Corporation Yard. The fire training facility will be used by Valley ROP for education and training of employees and students. The Dinuba Fire Department will use the facility for training of fire personnel. Valley ROP will purchase a three-story mobile training structure and the city will install necessary site improvements and finish work on the mobile units. Staff is recommending that the City Council approve the Education and Training Affiliation Agreement with Valley ROP to formalize the partnership and adopt a budget amendment to fund the project in the current fiscal year.

OUTSTANDING ISSUES

None.

DISCUSSION

The City of Dinuba Fire Department (DFD) and Valley Regional Occupational Program (VROP) have a long-standing partnership in the education of future firefighters enrolled in the Urban and Rural Fire Fighting Pathway. VROP uses the Dinuba Fire Station as their classroom to educate and train students interested in fire service. VROP students get exposure to an operating fire department, have access to the tools and equipment utilized by professional firefighters, and get to interact with Dinuba firefighters who act as mentors and role models to the students.

In 2022, the Dinuba Fire Department and Valley ROP began discussions on the location of a state-of-the-art fire education and training facility. Valley ROP indicated that they had funding to purchase the mobile units used in fire training facilities, but they were looking for a permanent site to locate the facility. The Dinuba Fire Department, working with Public Works and the City Manager, identified a city-owned property just south of the Public Works Corporation Yard as a potential site for the fire training facility. This property adjoins the Sierra Vista High School which is used by VROP for their adult school and will serve as a collection point for their students while utilizing the fire training facility. The site was presented to Valley ROP as an option, and they agreed that the site would be a good fit.

VROP agrees to purchase a three-story fire training mobile structure. The cost of this structure is estimated at \$215,000. The City is proposing to make all of the necessary improvements to locate the training facility up to \$400,000. VROP has agreed that the three-story mobile structure will be the City's property upon installation. In exchange, the City agrees to allow VROP to utilize the fire training facility for the next 20 years.

The proposed fire training facility will drastically improve upon the training capability of the VROP program. This partnership is an incredible opportunity for these students, but more importantly, VROP provides the gateway for a trained workforce that is critical to fulfilling the continuing need of fire and emergency services personnel necessary to serve and protect our community.

Staff is requesting a budget amendment of \$400,000 for site improvements and finish work of the structure (Attachment 'A'). The scope of this project will include the design and construction improvements of the site to include the preparation for the installation of the new mobile structure, the relocation of the existing mobile trailers and improvements necessary for future installations.

The Education and Training Affiliation Agreement enclosed herein as Attachment "B" is for 20 years, becoming effective on March 28, 2023, through March 28, 2043.

FISCAL IMPACT

The Ambulance Services Budget would be increased by \$400,000 per the approved

budget amendment. The city will accept ownership of the fixed asset with an estimated value of \$215,000.

PUBLIC HEARING

None.

ATTACHMENTS:

Attachment "A" Resolution 2023-14 for 2022-23 Budget Amendment,
Exhibit 1, Budget Amendment 2023-14
Attachment "B" Education and Training Affiliation Agreement

RESOLUTION 2023-14

**A RESOLUTION OF THE COUNCIL OF THE CITY OF DINUBA
APPROVING AND ADOPTING THE BUDGET AMENDMENT TO FUND THE FIRE
TRAINING FACILITY CAPITAL IMPROVEMENT PROJECT.**

WHEREAS, the FY 2022/2023 Annual Budget reflects the City of Dinuba's ongoing commitment to providing core services to the community, consistent with the strategic goals established by the City Council; and

WHEREAS, the FY 2022/23 Annual Budget was approved by the City Council on June 28, 2022 by Resolution 2022-44, and any subsequent amendments must be approved by Resolution; and

WHEREAS, a budget amendment is necessary to allow for the needed improvements to the fire training facility capital improvement project, which was not included in the 2022/23 fiscal year;

NOW, THEREFORE, BE IT RESOLVED, the Dinuba City Council hereby resolves that the FY 2022/2023 Annual Budget be amended to provide for the fire training facility capital improvement project.

PASSED, APPROVED AND ADOPTED this 28th day of March 2023, at a regular meeting of the Dinuba City Council by the following vote:

AYES:

NOES:

ABSTAIN:

ABSENT:

BY:

ATTEST:

Mayor of the City of Dinuba

City Clerk



REQUEST FOR BUDGET AMENDMENT

Requested by: Jordan Webster

Account Numbers	Fund Name Description	Budget Amounts	
		Increase	Decrease
REVENUES			
320	Ambulance Fund Balance		400,000
APPROPRIATIONS			
320.60.601-730.1020	Capital Outlay - Buildings	400,000	
Reason(s) for Budget Amendment: To fund the Fire Training Facility capital project located at 1088 E. Kamm Ave. This project is in partnership with Valley Regional Occupational Program (VROP). VROP will be purchasing and installing a three story mobile fire training structure on site. The City will be responsible for the costs associated with the site improvements for the facility and finish work to the structure.			
Department Director _____ Signature Date			
Approval Required Budget Amendment:			
Administrative Services Director _____ Signature Date			
City Manager _____ Signature Date			
City Council: ☐ Approved ☐ Resolution # _____ ☐ Denied Date			
BA No. _____ JE No. _____ Date Posted _____ By: _____			

*note please have reviewed and presigned prior to council meeting to give to City Clerk
 Form only for items that are amending the FY__ adopted budget.

**EDUCATION AND TRAINING AFFILIATION AGREEMENT
CITY OF DINUBA AND VALLEY REGIONAL OCCUPATIONAL PROGRAM
FIRE TRAINING FACILITY**

This Education and Training Affiliation Agreement (“Agreement”) is entered into effective the last date signed by the parties (“Effective Date”) between the City of Dinuba (“Dinuba”) and Valley Regional Occupational Program (“VROP”) with respect to the following recitals, which are a substantive part of this Agreement:

RECITALS

- A. Dinuba owns and maintains approximately 8.72 acres of property (380,000 square feet) located at 1088 East Kamm Avenue, in the City of Dinuba, County of Tulare, which Dinuba utilizes as the Public Works Corporation Yard. Dinuba Fire Department (“DFD”) has identified approximately 1.37 acres (60,000 square feet) in the south east corner of the parcel to be utilized as a Fire Training Facility (“Property” or “Training Center”). Currently the Property is vacant undeveloped land. The remainder of the Parcel consists of the public works Corporation yard including: Public Works Office building, Fleet Maintenance building, Streets and Water maintenance building, City Warehouse and two covered parking areas.
- B. VROP desires to utilize the Training Center for a clean three story mobile fire training metal structure (“New Mobile Structure”) to be installed, plus parking to provide VROP students with training in first response, emergency services, firefighting, and other specialized skills. Use of the Training Center may include, in addition to the New Mobile Structure, the use of DFD owned props if mutually agreed to and not in use by other agencies.
- C. Dinuba is willing to allow use of the Training Center by VROP upon the terms and conditions set forth in this Agreement.

NOW, THEREFORE, for the consideration set forth herein, Dinuba and VROP agree as follows:

AGREEMENT

- 1. **Scheduled Use.** Appointments to use the Training Center shall be made in advance and are subject to the availability of the facilities, props, classrooms, and Dinuba staff. Appointments shall be made by using the contact information set forth in **Exhibit A**. Scheduled appointments may be cancelled at any time by DFD based on the needs of DFD and its staff.
- 2. **Fees.** There will be no fees assessed for VROP in utilizing the Training Center.
- 3. **Installation of New Structure.** VROP shall be responsible for the purchase and installation of the New Mobile Structure at its sole cost and expense. The New Structure shall meet applicable standards. Dinuba shall be responsible for the improvements to the site necessary for the installation of the New Mobile Structure. The precise timing for acquisition and installation of the New Mobile Structure will be based upon availability. DFD shall

communicate and work with VROP regarding timing. The New Mobile Structure shall become the property of Dinuba.

4. Term of Agreement. VROP shall have the right to use the New Mobile Structure for the useful life of the New Mobile Structure, not to exceed a period of twenty (20) years from the Effective Date of this Agreement (“Term”). Use of the New Mobile Structure and Training Center shall be as described below. At the end of that period set forth in this section, continued use of the Training Center will require that VROP enter into the then current version of the Dinuba Fire Training Facility Use Agreement. The current version of the Facility Use Agreement is on file with Dinuba and available for review upon request.
5. Use of Training Center.
 - 5.1. Use of New Mobile Structure. This Agreement allows VROP use of the New Mobile Structure. Additional use of the Training Center, such as use of DFD owned props, shall only be allowed upon mutual Agreement of VROP and DFD, and subject to any fees DFD may charge. The Indemnification and Insurance Provisions of this Agreement shall apply to all uses of the Training Facility, including any props and the Training Center.
 - 5.2. Access. Only VROP teachers and employees assigned to the Firefighting Technology ROP will be allowed on site and to participate in training activities. Only VROP students assigned to the Firefighting Technology ROP will be allowed on site and to participate in training activities. Personal guests are not permitted without express permission by DFD.
 - 5.3. Security. Building access may be granted to authorized VROP teachers and employees assigned to the Firefighting Technology ROP at the discretion of DFD. VROP will be assigned security access keys managed by DFD. All security access keys and Training Center codes, including, but not limited to, alarm, door, and gate, shall not be shared with unauthorized individuals. It is VROP’s responsibility to maintain the safekeeping of these security access keys and codes. If any of the security access keys or codes are compromised, Dinuba may immediately hold VROP financially responsible for expenses related to a re-key or update of security codes.
6. Applicable Rules.
 - 6.1. VROP personnel will be subject to and required to abide by all City of Dinuba and Training Center Rules and Regulations.
 - 6.2. Personnel shall follow DFD Training Center Policy regarding the use of all specialized training props at the Training Center. A copy of the DFD Training Center Policy shall be made available by a DFD representative upon request.
 - 6.3. VROP personnel shall not use the forklift located at the Training Center.

- 6.4. VROP personnel shall not use Dinuba owned vehicles located at the Training Center.
- 6.5. No DFD consumable items or material goods, stored on site at the Training Center are allowed to be used without express consent of DFD. This includes but not limited to: bottled water, coffee, hand tools, power tools, nails, screws, rescue mannequins, or lumber of any type. VROP will supply consumable and material goods while utilizing the Training Center to support VROP training.
- 6.6. VROP will maintain the cleanliness of the Training Center after each use. VROP will report any maintenance or general issues regarding the Training Center facilities and props to DFD.
- 6.7. Unless otherwise provided in this Agreement, use of the Public Works Department area by VROP is strictly prohibited.”

7. Indemnification.

- 7.1. VROP shall indemnify, defend, and hold harmless Dinuba and Dinuba’s officials, officers, employees, agents, and volunteers from and against all liability, claims, suits, damages, losses, costs and expenses, including reasonable attorney’s fees, which may be asserted by any third party against Dinuba and incurred in connection with or arising out of: (1) the use of the Training Center by VROP, its officers, agents, members, employees, and volunteers; (2) any breach of VROP’s performance obligations under this Agreement; or (3) any acts of negligence or willful misconduct of VROP or any person or entity claiming through or under VROP, or VROP’s agents, employees, and contractors but excluding such loss or damage caused by Dinuba’s sole negligence or willful misconduct.
- 7.2. Dinuba shall indemnify, defend, and hold harmless VROP and VROP’s officials, officers, employees, agents, and volunteers from and against all liability, claims, suits, damages, losses, costs and expenses, including reasonable attorney’s fees, incurred in connection with or arising out of: (1) the use of the Training Center by Dinuba, its officers, agents, members, employees, volunteers and third parties; (2) any breach of Dinuba’s performance obligations under this Agreement; or (3) the sole negligence or willful misconduct of Dinuba or any person or entity claiming through or under Dinuba, or Dinuba’s agents, employees, and contractors.
- 7.3. In lieu of and notwithstanding the pro rata risk allocation which might otherwise be imposed between the parties pursuant to Government Code Section 895.6, the parties agree that all losses or liabilities incurred by either party shall not be shared pro rata but rather the parties agree that pursuant to Government Code Section 895.4, each of the parties hereto shall fully indemnify, hold harmless and defend each other, their officers, board members, employees, and agents, from any claim, expense or cost, damage or liability imposed for injury as defined by Government Code Section 810.8 and which

includes death, damage or loss of property, injury to a person, his or her reputation, character, feelings or estate.

7.4. The obligations and terms of this Indemnification section are in addition to, and are not limited by the insurance which each party is required to maintain under this Agreement.

8. Insurance Requirements.

8.1. Insurance. Both VROP and the Dinuba shall maintain for the duration of this Agreement, insurance against claims for injuries to persons, wrongful death, and for damage to property that may arise from or in connection with any act, error, omission or negligence of its officials, officers, employees, agents, and volunteers. Such insurance shall be in an amount of not less than 2 million dollars (\$2,000,000.00) per occurrence and shall name each other as additional insureds. VROP shall provide proof of insurance, subject to VROP's right to self-insure set forth below.

8.2. Acceptability of Insurers. The insurance described in this subsection is to be placed with an insurer or insurers licensed to do business in California, admitted by the California Insurance Commissioner, and which have a current A.M. Best's rating of not less than A: VII.

8.3. Self-Insurance. VROP may self-insure for the insurance coverage required by this section. Such self-insurance shall meet the requirements of this section and shall be demonstrated by a letter to Dinuba from VROP's Risk Management/Insurance Department confirming VROP's ability to satisfy such insurance obligation.

8.4. Approval by Risk Management. Notwithstanding the foregoing, the insurance required by this section shall be in a form and amount approved by the City's Risk Management division and City Attorney's office.

9. Potential Third Party Claims arising from this Agreement. The parties agree to inform each other upon notice of actual or potential claims or suits arising out of implementing this Agreement. The parties agree to cooperate, to the extent authorized by applicable law, in the investigation of such complaints, to include making reasonably available any records, material, statements, names, and personnel. Claims shall be determined by applicable state and federal law.

10. Governing Law and Venue. This Agreement shall be governed by and construed in accordance with the laws of the State of California. Venue shall be Tulare County.

11. Entire Agreement and Amendments. This Agreement contains all Agreements and understandings of the parties concerning the subject matter of it and cannot be amended or modified except by a subsequent written agreement executed by both parties. This Agreement shall not be modified or amended in any way except in writing signed by the parties hereto.

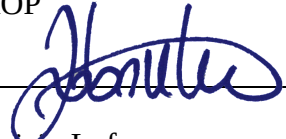
12. Third Party Contracts. This Agreement may be superseded at any time by any Lease or License Agreements made between Dinuba and a third party. VROP will be notified 60 days prior to such a change.
13. Third Party Beneficiaries. Nothing in this Agreement shall be construed to confer any rights upon any party not a signatory to this Agreement.
14. Alterations and Improvements. VROP shall not construct training props and related peripheral improvements, both underground and above ground, at the Training Center without the advance and express written consent of DFD, and upon such reasonable terms and conditions as Dinuba may require. The Improvements shall be processed through the Dinuba Planning and Development Services Department for required permits, and in its capacity as owner of the Property, Dinuba will reasonably cooperate with VROP in obtaining such permits should they be required.
15. Removal of Buildings and Structures. Upon termination of this Agreement, unless otherwise agreed by VROP and Dinuba, VROP shall remove VROP owned personal property, buildings, structures and other improvements located on at the Training Center and restore the Training Center to substantially the same condition as existed at the time VROP entered into this Agreement, ordinary wear and tear excepted. Upon VROP's failure to remove VROP owned property or improvements from the Training Center in accordance with the terms of this Agreement after thirty (30) days' prior written notice from Dinuba, such property or improvements, at the option of Dinuba, shall become the sole property of Dinuba; or, if Dinuba so elects, Dinuba may remove such property or improvements from the Training Center, and restore the Training Center to substantially the same condition in which they existed at the time VROP entered onto this Agreement, reasonable wear and tear excepted, and CVROP shall reimburse Dinuba for any such reasonable costs incurred by Dinuba within thirty (30) days after Dinuba's written demand to VROP, accompanied by supportive evidence of such expenditures.
16. Maintenance. DFD, at its sole cost and expense, shall at all times during the Term keep and maintain the Training Center, and all personal property, buildings, structures and improvements thereon in good order and condition, and free from rubbish, all reasonably satisfactory to Dinuba.
17. Termination. Either party may terminate this Agreement upon a material breach and a failure to cure within thirty (30) days of notice of the breach. No refund of fees or other compensation shall be due VROP for early termination.
18. Severability. The unenforceability, invalidity, or illegality of any provision of this Agreement shall not render the other provisions unenforceable, invalid, or illegal.
19. Counterpart Copies. The Agreement may be signed in counterpart or duplicate originals, and any signed counterpart or duplicate original shall be equivalent to a signed original for all purposes.

20. Authority to Execute.

- 20.1. City Authority. In approving the form of this Master Use Agreement, the City Council authorizes the City Manager, and his or her designee, to execute this Agreement with VROP. The City Manager is authorized to approve non-substantive amendments.
- 20.2. VROP Authority. Only an official authorized to bind VROP to the terms of this Agreement shall execute this Agreement on behalf of VROP. VROP shall provide proof of that authority concurrent with execution. Such proof may require approval by the VROP governing body or other evidence of delegated authority.

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement on the Agreement Date.

VROP



Fabrizio Lofaro

Print Name and Title

Dated: _____, 2023

Contact Person for the VROP:

Name: Fabrizio Lofaro

Title: Superintendent, Valley ROP

Address: 1305 Q Street
Sanger, CA 93657

Phone: (559) 876-2122

Email: flofaro@valleyrop.net

CITY OF Dinuba



Print Name and Title

Dated: _____, 2023

Contact Person for the City:

Name: Jordan Webster

Title: Fire Chief

Address: 420 E. Tulare Street
Dinuba, CA 93618

Phone: (559) 324-2260

Email: jwebster@dinuba.ca.gov

EXHIBIT A

DINUBA FIRE DEPARTMENT INFORMATION

Name: _____
Address: _____
Telephone: _____
E-Mail: _____
Fax: _____
Other contact: _____

AGENCY INFORMATION

Name of Agency: Valley Regional Occupational Program
Name of Agency contact person(s)/authorized representative(s): Fabrizio Lofaro

Address: ____1305 Q Street, Sanger, CA 93657
Telephone: 559-876-2122
E-Mail: flofaro@valleyrop.net
Fax: _____
Other contact: Dora Alvarado, dalvarado@valleyrop.net

Proof of Authority to Bind: ☐ Copy Attached: ☐

Proof of Insurance: ☐ Current Per Risk Management: ☐

DESCRIPTION OF PROPOSED FACILITY USE

Date: Friday, March 10, 2023 Time: 1:00 pm

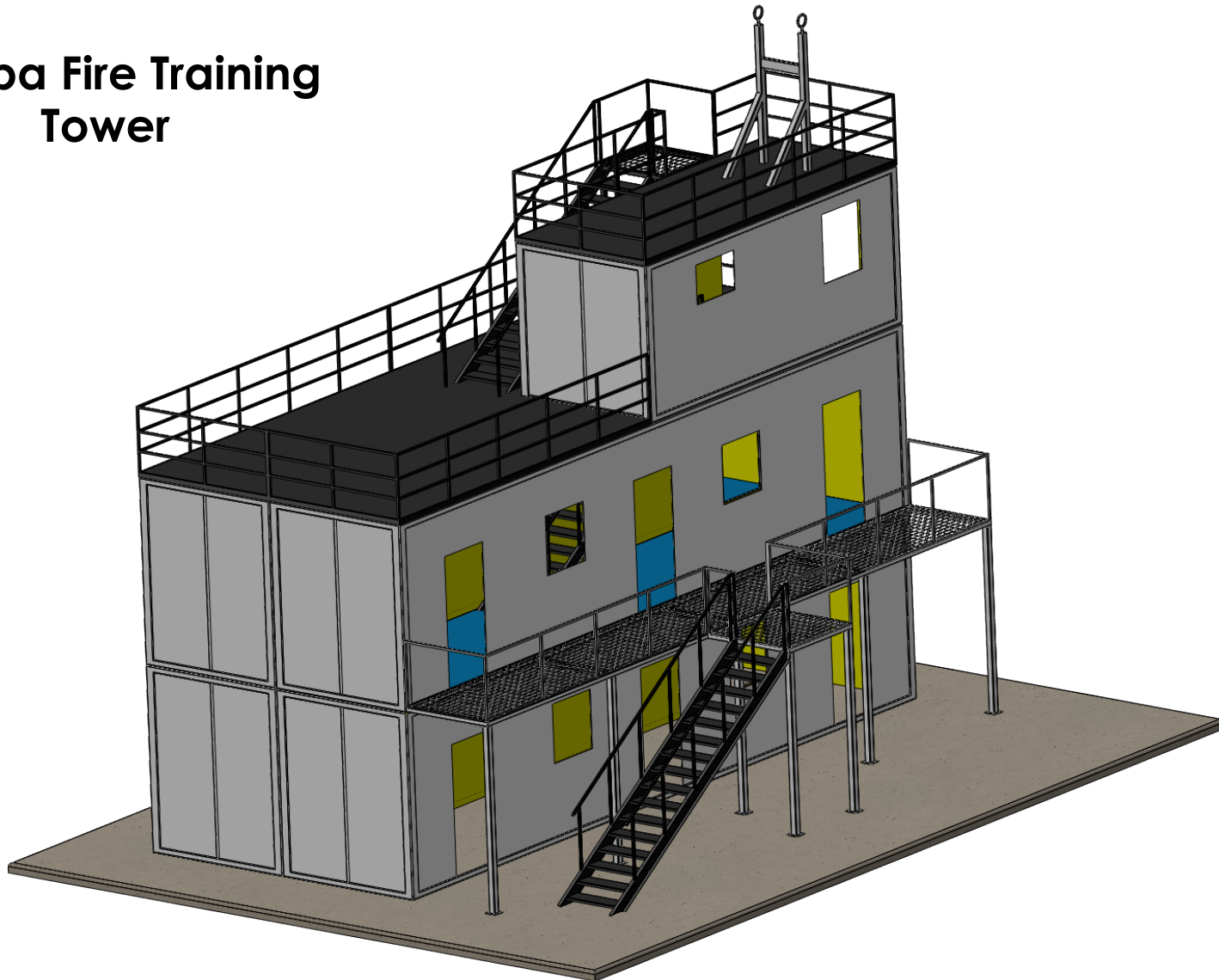
Description of Area to be Used:

Training facility for Valley ROP Fire Fighting Programs & Crim. Justice

- Dinuba (Orosi HS, Lovell HS & Dinuba HS)
- Reedley Fire Department (Reedley HS, Orange Cove HS, MVHS and Parlier HS)
- Selma (Selma HS, Heartland HS & Kingsburg HS)
- Sanger (Sanger West HS and Sanger HS)
- Alternate Training for Criminal Justice Programs and Introduction to Public

Services Purpose of Use: Props to be used, if any:

Dinuba Fire Training Tower



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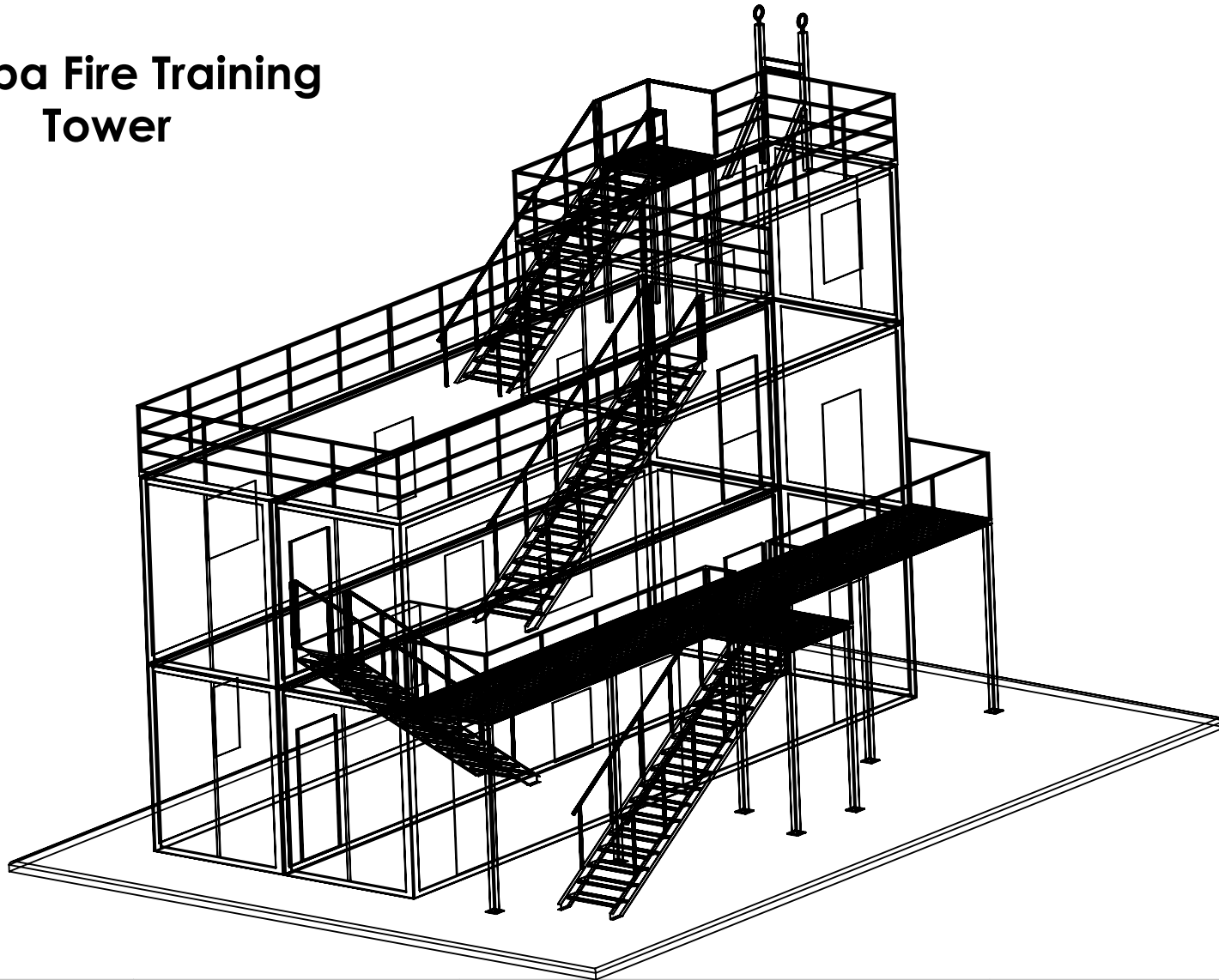
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Tower P1
thru 6

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SHEET 1 OF 6

Dinuba Fire Training Tower



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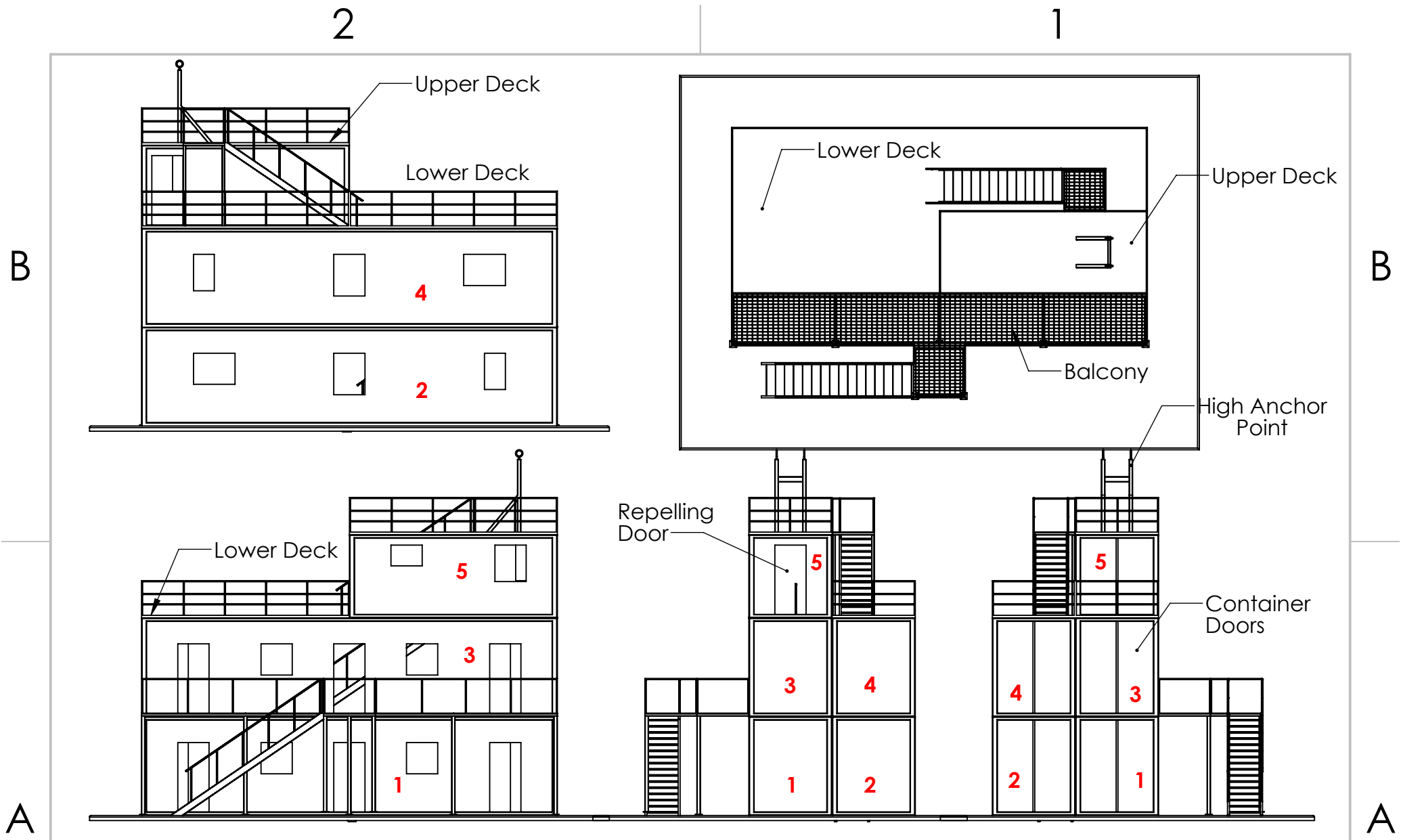
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Tower P1
thru 6

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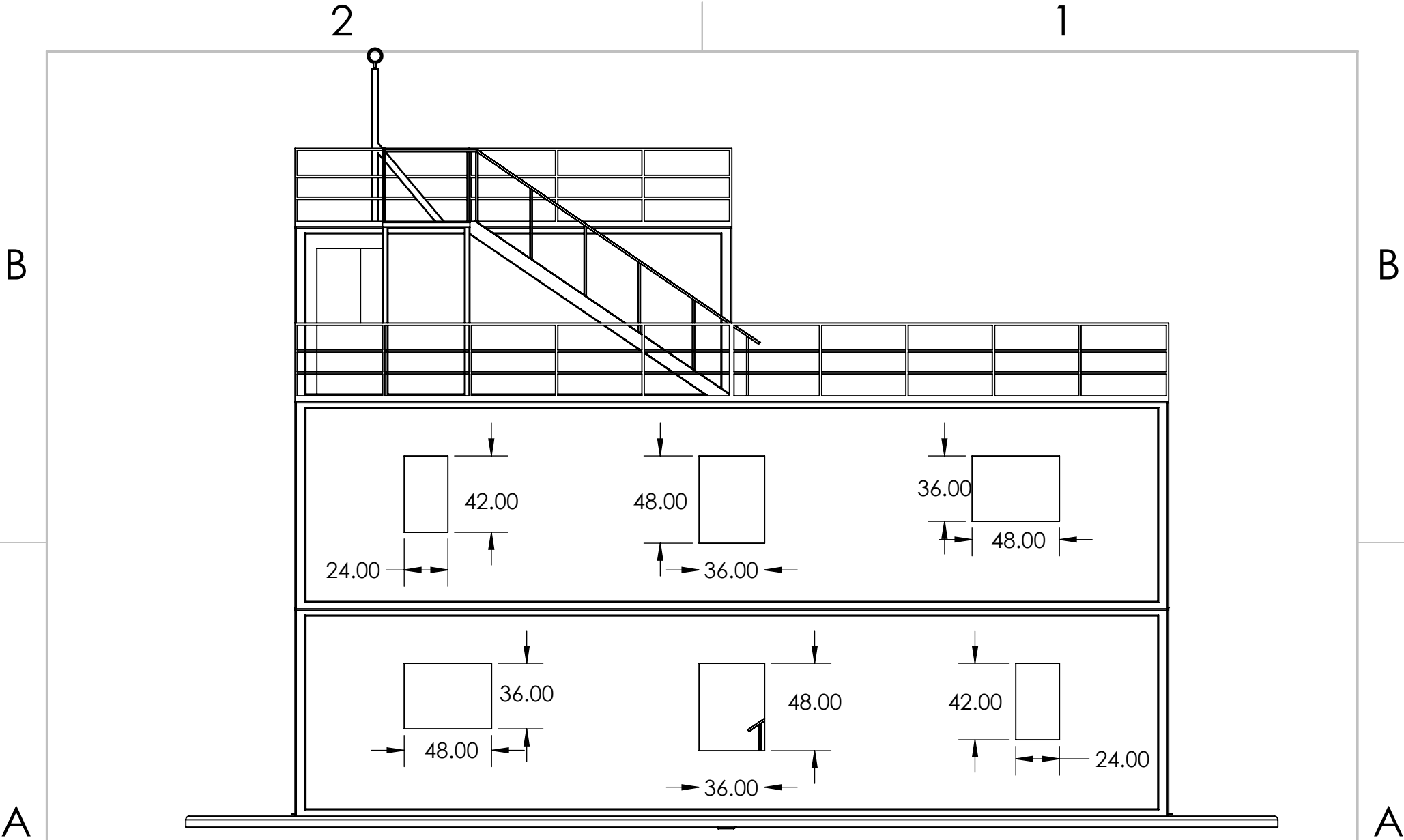
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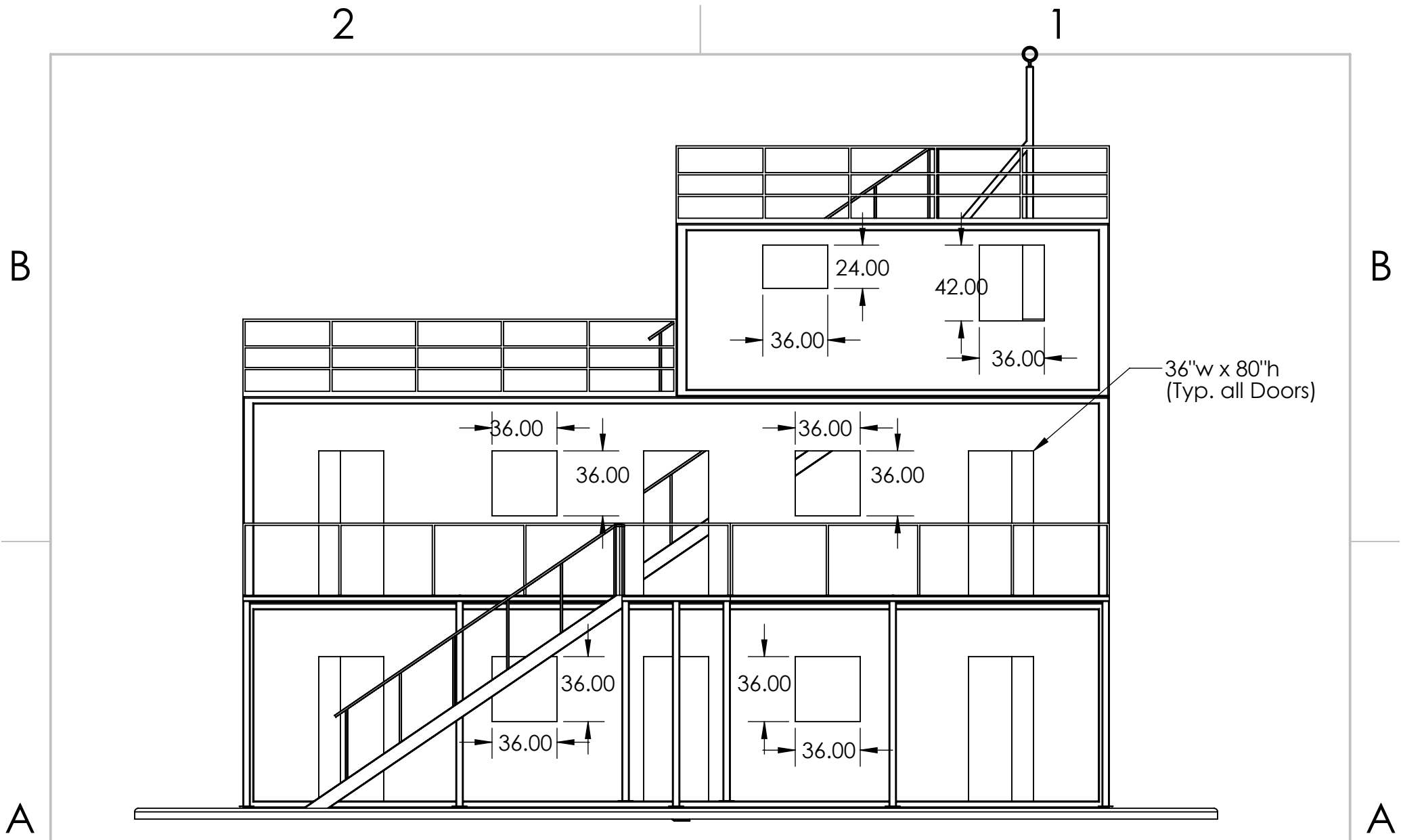
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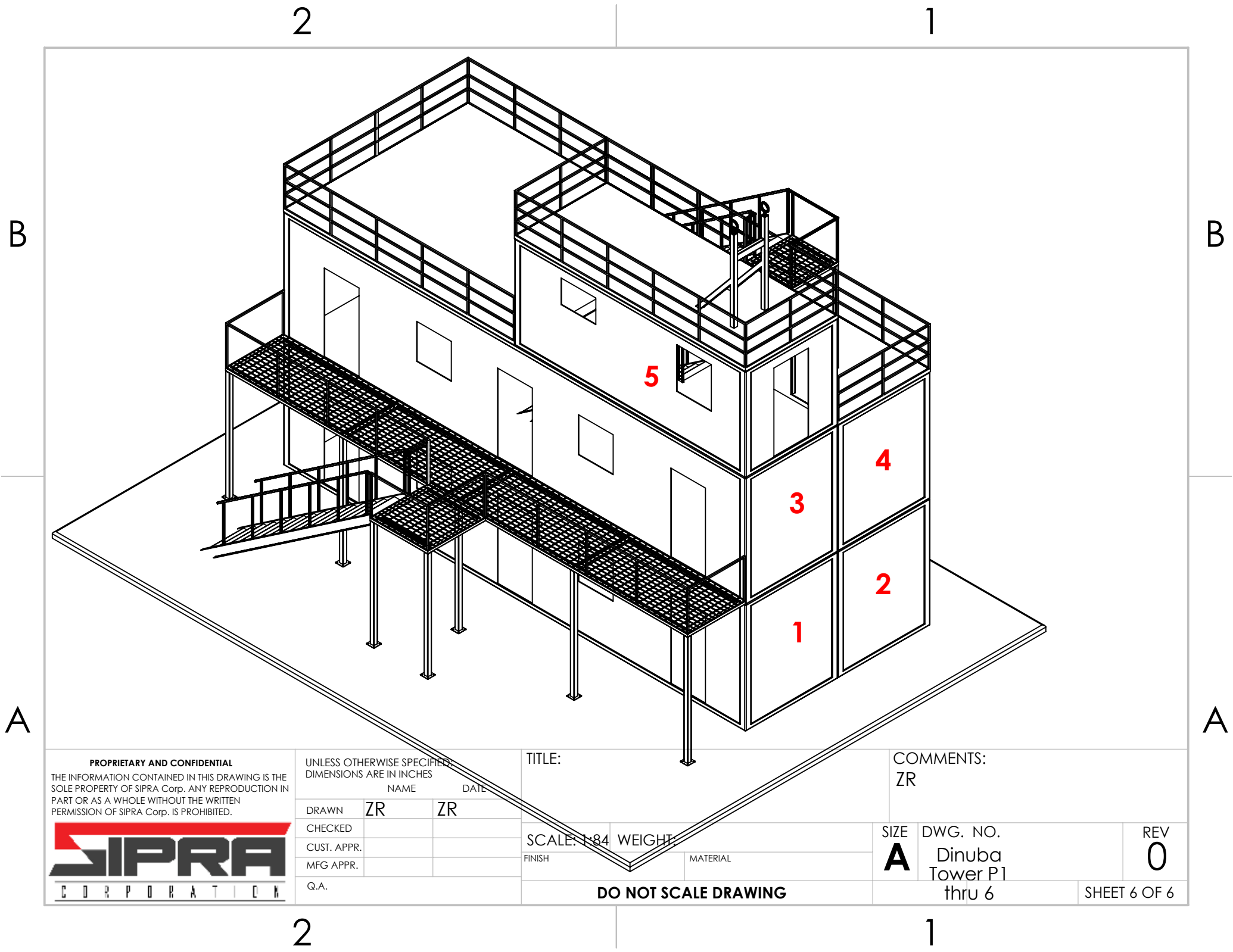
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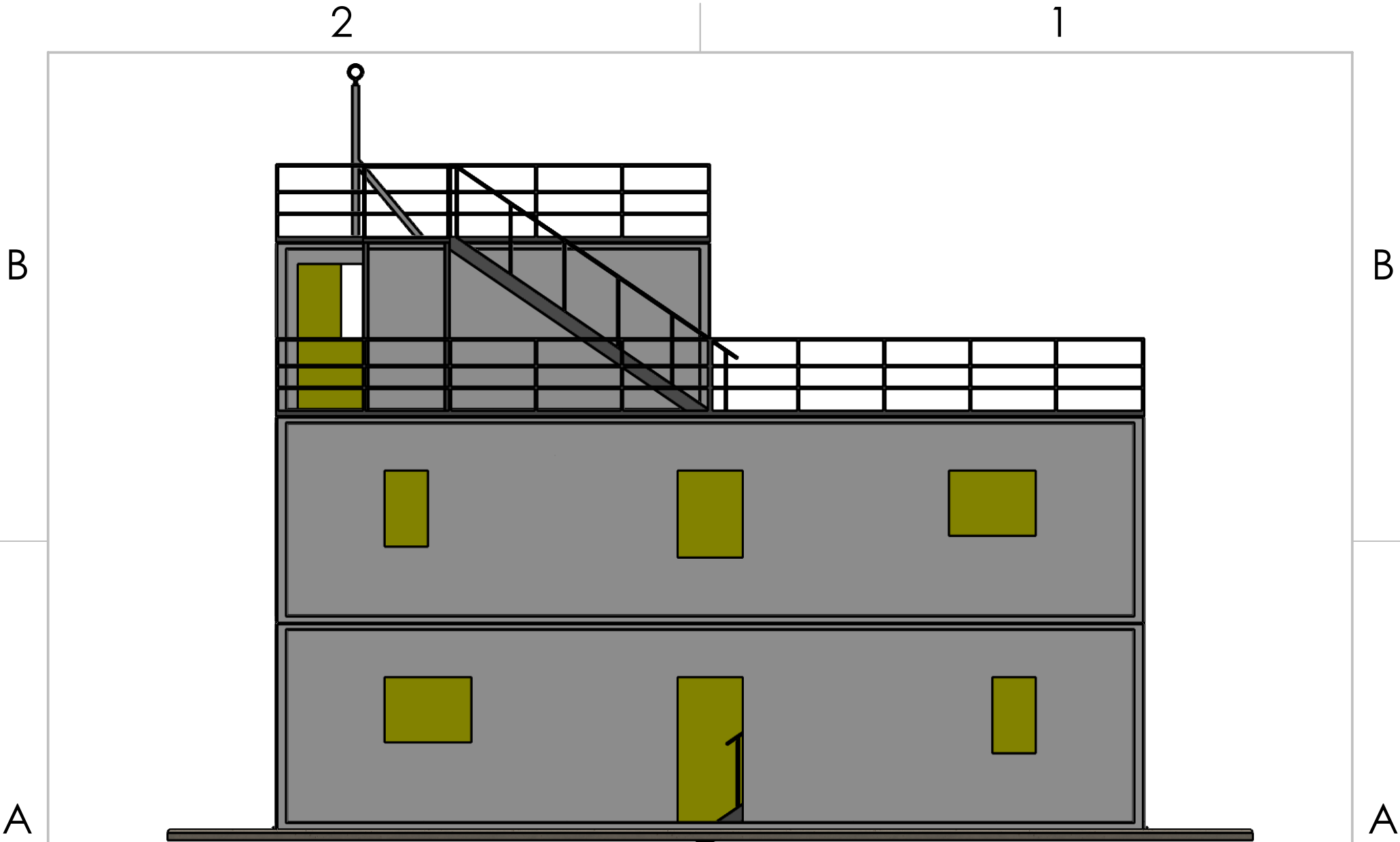
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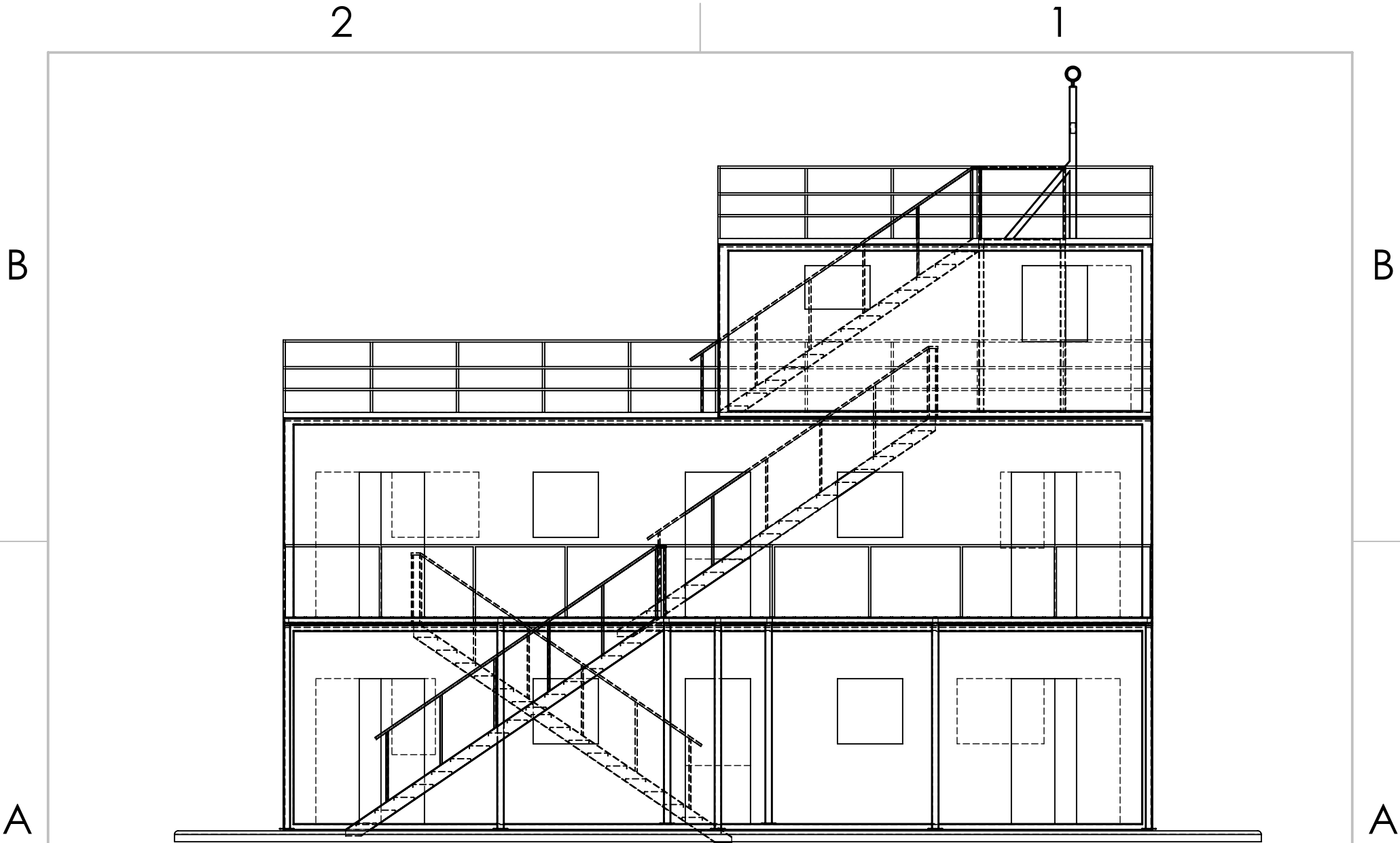


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SHEET 1 OF 1