

## **EXHIBIT A**

### ***CITY OF SEDRO-WOOLLEY FIRE DEPARTMENT Proposal Specifications***

#### **INTENT**

It is the intent of these specifications to describe, in detail, the minimum requirements for furnishing The Sedro-Woolley Fire Department a complete slide-in skid apparatus manufactured and equipped as hereinafter specified.

These specifications cover only the general requirements as to the type of construction and certain details such as finish, equipment and criteria with which the apparatus and the successful bidder must conform. Minor details of construction and material, where not specified, are left to the discretion of the contractor who will be solely responsible for the design and the construction of all features.

The apparatus proposed, in addition to complying with these specifications, will also comply with those of the National Fire Protection Association (NFPA), Department of Transportation, Federal and State Motor Vehicle Safety Standards and the Society of Automotive Engineers.

#### **DESIGN AND WORKMANSHIP**

The apparatus will be of the latest design and type while using the most current industry construction techniques.

The complete apparatus, assemblies, component parts, etc., will be designed and constructed with due consideration to the nature and distribution of the load to be sustained and to the general character of the service to which the apparatus is to be subjected. All parts of the apparatus will be designed with a factor of safety which is equal to or greater than that which is considered standard and acceptable for this class of equipment in the firefighting and/or emergency service.

The apparatus will be fabricated using jigs and fixtures and be so designed and constructed that the various parts are readily accessible for lubrication, inspection, adjustment and repair.

The manufacturer must meet the minimum requirements of NFPA Pamphlets, Underwriter's Laboratories, Inc., and all State and Federal Department of Transportation vehicle regulations at the time of the sale.

#### **CRITERIA AND CODE CONFORMANCE**

The apparatus will be designed to conform to the intent of ANSI, NFPA, and Standard for Automotive Fire Apparatus.

The following additional design criteria and code conformance will be adhered to in the construction methods employed by the manufacturer:

**American Society for Testing and Materials (ASTM) A-36 specification for structural steel.**

**Society of Automotive Engineers, Inc. Handbook (SAE).**

**American Welding Society (AWS) AWSO14.4-77 Classification and Application of Welded Joints for Machinery and Equipment and Canadian Welding Bureau (CWB).**

**American Society of Non-Destructive Testing (ASNT) Guidelines; Procedure SNT-TC-1A.**

Note: In order to guarantee the quality that the department demands and expects, all welding employed in the construction will be in accordance with AWS (American Welding Society).

### **PRE-CONSTRUCTION CONFERENCE**

A conference will be held after the contract has been signed so that all specifications, details, drawings, questions and engineering work can be reviewed and approved by the department. This conference will be in accordance with the build schedule of the manufacturer, and will not in any way hold up the construction of the apparatus. The conference will be held prior to the commencement of any work being done on the chassis or the body. The conference will be held in the City of Sedro-Woolley at the expense of the contractor. The respective persons will be in attendance at the conference to authorize decisions to be made on behalf of the department and the contractor.

**Signed approvals by authorized personnel representing the purchaser must be given prior to any work being started. NO EXCEPTION**

### **APPROVAL DRAWINGS**

Prior to any construction taking place, a detailed CAD generated drawing will be supplied to the fire department for their approval.

The drawing must be signed only by authorized personnel and will be returned to the factory within 30 days of their receipt. Construction on the apparatus will not commence until the approved drawing has been returned to the factory.

The approved drawing will become an integral part of the final contract. An accurate and detailed copy will be retained at the factory for future reference.

### **PERFORMANCE TEST AND REQUIREMENTS**

A road test will be conducted with the apparatus loaded per NFPA recommendations (unless otherwise specified) and a continuous run of thirty (30) miles or more will be made during which time the apparatus will show no loss of power or overheating. The

transmission drive shaft or shafts and rear axles will run quietly and be free from abnormal vibration or noise throughout the operating range of the apparatus.

The successful bidder will furnish a weight certificate showing weights on front axle, rear axle and total weight for the completed apparatus at time of delivery, with water tank full, but without personnel, equipment and hose.

A. The apparatus must be capable of accelerating to 35 mph (55 kmph) from a standing start within 25 seconds on a level, paved road without exceeding the maximum governed rpm of the engine.

B. The fully loaded vehicle will be capable of obtaining a speed of 50 mph (80 kmph) on a level, paved road with the engine not exceeding its governed rpm.

C. The apparatus will be able to maintain a speed of 20 mph (30 kmph) on any grade up to and including 6%.

D. The service brakes will be capable of stopping the fully loaded vehicle in 35 feet at 20 mph (30 kmph) on a level, paved road.

E. The apparatus will be tested and approved in accordance with NFPA standard practices.

#### **FAILURE TO MEET REQUIRED TEST**

In the event the apparatus fails to meet the test requirements of these specifications on the first trial, a second trial may be made at the option of the bidder within thirty (30) days of the date of the first trial.

The results of such trials shall be made final and conclusive and failure to comply with these requirements shall be cause for rejection. Failure to comply with any changes as the purchaser may consider necessary to conform to any clause of the specifications within thirty (30) days after the notice is given to the bidder of such changes will also be cause for rejection of the apparatus.

Permission to keep or house the apparatus in any building owned or occupied by the purchaser or its use by the purchaser during the above specified period with the permission of the bidder will not constitute acceptance.

#### **LABELS & NAMEPLATES**

In accordance with NFPA, Federal Department of Transportation (D.O.T.) and FMVSS, the following labels will be provided in addition to those labels described within the specifications:

- The final manufacturer's certification of GVWR and GAWR will be stated on a nameplate and affixed to the vehicle.
- The final manufacturer's certification of apparatus height and length will be stated on a nameplate and affixed to the vehicle.

- A permanent plate mounted in the cab that specifies the quantity and type of the following fluids used in the vehicle: engine oil, engine coolant, chassis transmission fluid, pump transmission lubrication fluid, pump primer fluid (if used) and drive axle lubrication fluid.
- A permanent plate mounted in the cab that specifies the seating capacity of the enclosed cab.
- Signs that state "Occupants Must be Seated and Belted When Apparatus is in Motion" will be provided and be visible for each seated position.
- An accident prevention sign will be located at the rear step area of the apparatus. The sign will warn all personnel that standing on the step while apparatus is in motion will be prohibited.
- "CAUTION" labels will be installed at all areas that may create potential injury to personnel.

### **DELIVERY/DEPARTMENT PICKUP**

Department personnel will travel to the apparatus manufacturer to review the entire unit for compliance to the specifications and execution of work. Any alterations deemed necessary will be made at that time.

Department personnel will be trained in the complete operation of the unit as well as the required maintenance. Department personnel will then be responsible for transporting the apparatus to their location.

At the time of delivery, all related equipment will have its own information compiled together to allow quick access to service information.

All trips shall be included in the bidder's proposal and shall be based upon two (2) representatives of the purchaser traveling to the location of the manufacturer. All costs to be borne by the contractor, including but not limited to air travel, ground transportation, lodging, meals and all normal travel expenses.

### **PAYMENT TERMS**

Review Invitation to Bid for payment terms and conditions.

### **MANUFACTURER WARRANTY**

Bidder will warranty the work on the vehicle to be free of defective material and workmanship under normal use and service.

It will be the bidder's obligation under this warranty to repair or replace any parts or workmanship, after examination has disclosed, to our satisfaction, that such workmanship or parts; provided that such workmanship or parts are inspected within one (1) year of the completion of the work.

Such defective parts or workmanship will be repaired, replaced, or redone, free of charge upon delivery.

#### **TEN (10) YEAR PAINT WARRANTY**

Bidder will warranty the work on the vehicle to be free of defective material and workmanship under normal use and service.

It will be the bidder's obligation under this warranty to repair workmanship after examination has disclosed, to our satisfaction, that such workmanship; provided that the paint is inspected within ten (10) years of the completion of the work.

Such defective workmanship will be repaired, replaced or redone, free of charge upon delivery.

#### **TEN (10) YEAR BODY WARRANTY**

Bidder will warranty the work on the vehicle to be free of defective material and workmanship under normal use and service.

It will be the bidder's obligation under this warranty to repair or replace any parts or workmanship after examination has disclosed, to our satisfaction, that such workmanship or parts are inspected with ten (10) years of the completion of the work.

Such defective parts or workmanship will be repaired, replaced, or redone, free of charge upon delivery.

#### **CORROSION PERFORATION WARRANTY**

Bidder will warranty the work on the vehicle to be free of defective material and workmanship under normal use and service.

It will be the bidder's obligation under this warranty to repair or replace any parts or workmanship after examination has disclosed, to our satisfaction, that such workmanship or parts are inspected within ten (10) years of the completion of the work.

Such defective parts or workmanship will be repaired, replaced, or redone, free of charge upon delivery.

#### **SUBSTRUCTURE WARRANTY**

Bidder will warranty the work on the vehicle to be free of defective material and workmanship under normal use and service.

It will be the bidder's obligation under this warranty to repair or replace any parts or workmanship after examination has disclosed, to our satisfaction, that such workmanship or parts are inspected within twenty (20) years of the completion of the work. Such defective parts or workmanship will be repaired, replaced, or redone, free of charge upon delivery.

### **CHASSIS**

The chassis will be a Ford, Model F-550 XL Super Duty Crew Cab, 4 wheel drive (4x4).

### **SEATING CAPACITY**

The cab shall have a seating capacity for five (5) personnel.

### **WHEELBASE**

The wheelbase shall be 200" with a cab to axle dimension of 84".

### **GVW RATING**

The GVW rating of the chassis will be 17,950 lbs.

### **FRAME**

The frame rails will be single channel type

### **FRONT AXLE**

The front axle will be a drive axle with a 7,000 lb capacity ground rating.

### **TRANSFER CASE**

The transfer case shall be a two (2) speed type manually shifted.

### **FRONT SUSPENSION**

The front suspension will be a leaf spring type rated at 7,000 lbs. Double acting 1.375" gas type shock absorbers will be provided as well as a front stabilizer bar.

### **REAR AXLE**

The rear axle will be a single reduction type with a ground rating capacity of 13,660 lbs. The rear axle ratio will be provided by the chassis manufacturer.

### **FRONT & REAR BRAKES**

The front and rear brakes will be hydraulic disc type.

### **PARK BRAKE**

The parking brake will be located on the rear axle service brake.

### **ANTI-LOCK BRAKE SYSTEM**

The vehicle will be equipped with an anti-lock brake system (ABS). The ABS will provide anti-lock braking control to both front and rear wheels. The system will be controlled by means of microprocessor technology.

### **ENGINE**

- Gasoline Engine
- Model: 6.8L 3-valve Triton V10
- Horse Power: 362 hp @ 4,750 RPM
- Peak Torque: 457 lb ft @ 3,250 RPM
- Starting Motor: 12 - Volt

### **ENGINE WARRANTY**

The engine will come with a five year or 60,000 mile warranty. The warranty provider will be the engine manufacturer.

### **FUEL TANK**

The chassis fuel tank will have a 40 gallon capacity and will be mounted behind the rear axle by the chassis manufacturer. The design and installation will be done in a manner that will not interfere with the mounting of the fire pump and related equipment. An auxiliary fuel tap will be provided.

### **TRANSMISSION**

A five (5) speed TorqShift automatic transmission with overdrive will be provided including tow/haul mode.

### **DRIVELINE**

The driveline will be a heavy duty metal tube type with a splined slip joint in each shaft.

### **STEERING**

The steering will be a hydraulically driven type with a ratio of 20.3:1. The steering wheel diameter will be 15".

### **FRONT & REAR TIRES**

The front and rear tires will be 225/70R19.50 radials with all season tread.

### **FRONT & REAR WHEELS**

The front and rear wheels will be 19.50" Argent painted steel disc type. (6)

### **CAB**

- Type: Conventional (engine forward)
- Construction: Welded Steel
- Cab Trim: Ford XL Package
- Tinted Glass in All Windows
- Gray Vinyl Upholstery
- Black Rubber Floor mats
- Dual Sun Visors
- Electric Windshield Washer
- Two (2) speed electric wipers with intermittent control
- Dome Light
- Fresh Air Heater Defroster with integral Air Conditioner
- Painted Hood Mounted Grill
- Dual Electric Horns
- Driver and Passenger Air Bags
- Gray Vinyl Upholstery
- Black manual foldaway type mirrors
- Painted steel full width aerodynamic bumper, frame mounted
- Power Group windows and doors locks and heated mirrors

### **CAB SEATING**

The front cab will be equipped with two (2) heavy duty vinyl "Captain's Chairs" with shoulder harnesses. The rear crew cab will have a full width bench seat with three set of seat belts.

### **CAB INSTRUMENTS**

- Engine temperature gauge
- Engine oil pressure gauge
- Speedometer
- Odometer
- Engine Tachometer
- Engine Hour meter
- Fuel level gauge
- Voltmeter
- Air restriction indicator

### **BATTERY SYSTEM**

A single starting battery system will be provided consisting of a 12 volt 750 CCA heavy duty battery. (Note: if a duel battery system is available it will be spec'd as an option)

### **ELECTRICAL SYSTEM**

The chassis will be equipped with one (1) 115 amp 12-volt alternator. The system may be altered during the installation of an under hood generator if applicable. (Note: if a larger alternator is available it will be spec'd as an option).

### **AM/FM RADIO**

There will be an AM/FM stereo radio with digital clock provided in the chassis cab. The radio will be mounted in the cab dash and will have an externally mounted antenna.

### **SPEAKER - S.V.P. D-60 100 WATT**

Two (2) S.V.P. Model D-60 speakers will be installed. Each speaker has a 100 watt capacity, a bell housing made of high-impact ABS plastic, and is backed by a three year warranty.

The speakers will be mounted at a concealed location toward the forward section of the chassis.

### **SIREN - WHELEN MODEL 295HFS2 OR EQUIVALENT**

A Whelen or equivalent solid-state electronic siren will be installed. It comes with plug-in electric and noise canceling microphone connections. The siren will have the following features:

- Wail, Yelp, Hi-Lo, Siren Tones
- Yelp priority
- Instant PA
- 100-Watts of Output
- Electronic "Air Horn"
- Radio Rebroadcast

## **FUEL FILL TOWER - CUSTOM CHASSIS**

There shall be an aluminum fuel fill assembly located on the apparatus body to allow access to the fuel tank supplied by the chassis manufacturer. The fill tube and access door will be located on the left side of the body at the upper rear portion of the rear wheel fender panel. The fill area will have a polished aluminum frame with a fabricated aluminum door painted to match the body. An overflow drain will be incorporated into the tower. A label will be installed near the fill door stating "UNLEADED FUEL ONLY". The fuel fill pipe will have a 3/8" inside diameter vent line installed from the top of the fuel tank to the fill tube. The fuel system shall meet Ford QVM modifiers requirements for this engine application.

## **EXHAUST RUN TO FRONT OF R.R. WHEELS**

The chassis exhaust pipe and muffler shall be extended to the front of the right rear wheel compatible with the size of piping supplied with the chassis. It shall be pointed downward and back at an angle.

Any heat shields required to protect the body and/or compartments from heat shall be installed.

The exhaust will be bolted to the under side of the body structure with stainless fasteners.

## **CAB MOUNTED CONSOLE**

There shall be a cab mounted control console supplied and installed in the center of the cab, a fabricated electrical switch console for all related electrical controls and equipments.

The console shall be fabricated aluminum and painted to match the cab interior. A hinged panel at the forward portion of the console will allow all illuminated rocker switches to be installed. Below the hinged panel all solenoids, automatic reset circuit breakers, H.D. flashers, and relays will be centrally located for access and service.

At the rear section of the console there shall be supplied a recessed to hold maps, books, and related paperwork required with the unit.

The siren control head will be mounted in the console along with the microphone.

Enough space shall be allowed to install the radio control head at a later date if needed.

## **"IGNITION ON" LIGHT**

An "IGNITION ON" light will be located on the cab dash adjacent to the ignition. It will be wired to indicate power to the ignition when activated.

## **REAR MUD FLAPS**

Mudflaps shall be installed and mounted behind the rear wheels, to suppress road spray to a minimum. The mudflaps will be attached with stainless fasteners.

## **BATTERY SHUTOFF SWITCH**

A two (2) position battery shutoff switch shall be furnished and mounted on the cab console accessible to the driver's seating position. When the switch is in the off position the emergency and body electrical system on the vehicle shall be disabled.

## **CHARGE SYSTEM - GUEST 2620A -B**

There shall be a Guest #2620A-B battery charger with a maximum 20 amp output installed for the charging system. This shall maintain the truck batteries at a full charge level. The unit is totally waterproofed and fully automatic.

The system shall be protected against reverse polarity. There shall be no interference to radio transmission or reception.

Power for the system shall be supplied from a remote shoreline receptacle located per the department's direction.

## **RECEPTACLE - BATTERY CHARGING**

A 20 amp polarized battery-charging receptacle shall be provided. The location will be decided during the pre construction meeting with the department. A male plug to match the receptacle will be supplied and shipped loose with the vehicle.

## **QUICK ATTACK UNIT / 84" C/A**

### **GENERAL INFORMATION**

It is the intent of these specifications to establish the functional requirements of a Quick Attack vehicle.

The vehicle will be equipped with fire-suppression equipment specified by the Department.

The design of the vehicle must permit ready accessibility for servicing, replacement, and adjustment of component parts and accessories with minimum disturbance to the other components and systems. Welding must not be employed in the assembly of the apparatus in a manner that will prevent the ready removal of any component part for service or for repair.

After body equipment and accessories are added to the chassis for the completion of the vehicle, the total weight of the finished product, including body, equipment, accessories, drive and payload, must not exceed the chassis manufacturer's gross axle weight rating. The apparatus shall be constructed with due consideration to the nature and distribution of the load to be sustained, and to the general character of the service to which the apparatus is to be subjected when placed in service. Further, an angle of departure of at least eight (8) degrees shall be maintained at the rear of the vehicle.

All materials used in the construction of the apparatus must be new, with quality conforming to current engineering and manufacturing practices. Materials used must be free of defects and suitable for the intended service.

The apparatus, as constructed, must fully comply with Federal Motor Vehicle Standards as stated in Public Law No. 89-563, including additional pertinent acts, amendments, and standards in effect at the time of manufacture. The vehicle and apparatus must also comply with the current regulations, at the time of manufacture, of the National Fire Protection Association and FMVSS covering Automotive Fire Apparatus.

The body will be of prime commercial quality aluminum (5052-H32 sheet metal and 6061-T6 extrusions and bar). The exterior of the body will be finished smooth with symmetrically-rounded corners and edges, including rub rails, presenting a modern and aerodynamic appearance. The body will be designed and built to provide impact and penetration resistance, with appropriate channel reinforcing to assure rigidity.

All parts of the body (and attachments) will be fastened together with rust resistant fasteners in a manner which will preclude loosening of any bolts or screws and the cracking of welded joints. The body will be made of not less than 0.100 inch thick metal and be reinforced at all points where equipment will be attached. The body will be a bolted and welded structure. Welding will not, however, be employed in the assembly of the body in a manner that will prevent the ready removal of any component part for service or repair. The body (components) will not be welded to the frame of the chassis.

The aluminum body shall be isolated from the steel frame with an approved type isolation material, such as 3M dielectric tape or like coating.

### **BODY MOUNTING...SUBSTRUCTURE**

Due to greater weld strength and endurance limits of steel the rescue body will be supported by means of a steel support system. The support system shall consist of individual assemblies fastened together utilizing precision fixtures to ensure proper dimensions and minimal distortion. Alternate construction methods will be considered by the purchaser as long as they meet the intent of the specifications.

Each compartment will have a 1,000 pound carrying capability understructure. Extended yield abilities of current frames deems it necessary to positive fasten the rear of the support system to the frame utilizing grade 8 stainless steel bolts and spring load at the center and forward portion. U-bolted mounts or clamp fasteners shall not be acceptable.

The substructure will be assembled in a fixture using heavy structural steel bar stock (2" x 3" x 3/16" tubing, 1/4" x 2" x 2" angle, and 3/8" x 3" x 3" angle). Or equal aluminum tubing and angle.

The substructure will run longitudinal on top of the chassis frame rails. The latitudinal members will be of an across, down-and-out design to support the center floor and the exterior compartment floors. Longitudinal support members will be supplied on the outer lower edges of the substructure to support the compartments. The chassis frame and substructure will be cleaned and coated with modified synthetic rubbers containing zinc before the body is mounted to it with mild stainless steel fasteners. Stainless steel grade eight (8) bolts will be utilized to fasten the rear body support assembly to the chassis frame.

The substructure will be fastened to the frame at the rear with stainless steel grade eight (8) bolts. The substructure supplied will be provided with the same extended 20 year warranty as the chassis frame.

## **SIDES**

The sides will be constructed of .125 aluminum (5052-H32). The side's understructure will be fabricated by taping 1" x 1" x 1/8" wall channels centered horizontally, and 2" x 1" x 1/8" wall square tubing welded to channels on approximately 15" centers vertically. 2" square tubing will join and be welded to the roof supports. Corner post extrusions #IA 3499 (6061-T6) will be welded to both the side and the understructure. The completed sides will be treated with a sound deadening barrier.

## **COMPARTMENTATION DIMENSION**

All compartments shall be aerated by a machine-louvered vent. Each compartment will be of a sweep-out design.

The horizontal and vertical planes of each compartment will be fabricated of .125 smooth aluminum (5052-H32). Compartment interiors will then be painted in a base white paint with a black web-like finish.

Compartment sizes shall be as follows:

### **COMPARTMENT D1 & P1**

Compartments D1 and P1 will be located ahead of the rear wheels at the front of the body. Each compartment will be 54" wide x 50" high x 21" deep. Door openings will be 52" wide x 46" high. Each compartment will yield approximately 31.2 cubic feet of storage space.

### **COMPARTMENT D2 & P2**

Compartments D2 and P2 will be located above the rear wheel wells. Each compartment will be 42" wide x 32" high x 21" deep. Door openings will be 40" wide x 28" high. Each compartment will yield approximately 15.5 cubic feet of storage space.

### **COMPARTMENT D3 & P3**

Compartments D3 and P3 will be located at the rear of the body behind the rear of the rear wheels. Each compartment will be 30" wide x 50" high x 21" deep. Door openings will be 28" wide x 46" high. Each compartment will yield approximately 17.3 cubic feet of storage space.

## **TOW EYE(S) (HOOK)**

Two (2) rear tow eye(s), with a minimum opening of 2-1/2" x 3-1/2", will be installed. The required front tow eyes will be provided (and ordered) with the chassis. The rear tow eye(s) will be located so that their use does not require opening compartment doors.

## **REAR STEP**

The rear platform will be full width of the apparatus body and be not less than twelve (12) inches in depth. The platform will be constructed of bright diamond tread aluminum plate, which is removable, and be supported by the rear platform support attached to the chassis frame. The rear platform will not be a structural member nor integrated with any other body compartment, which could cause possible sag or strain on the main body assembly.

## **BODY PROTECTION**

Drip rails will be installed over all compartment doors, and shall be removable and replaceable.

The perimeter of the roof section will have drip molding as part of the roof extrusion.

## **STONE SHIELDS**

Stone shields fabricated of .100 tread aluminum plate will be attached: (1) on the front face of the body 24" high; (2) at the rear lower vertical face 24" high; (3) at the rear corners 24" high.

## **WHEEL HOUSING**

Wheel well liners will be provided, approximately 23" wide, and be constructed of .063 aluminum (5052-H32).

The fender crowns will be a polished stainless steel and will be installed at the rear wheel opening.

**NOTE: The body will carry a 10 year structural warranty. This warranty will include welds, the structural integrity of the materials, fatigue in body assembly, and metal cracking. NO EXCEPTIONS!**

## **SLIDE-IN PUMP MODULE DARLEY DROP-IN "FAST ATTACK 1"**

The slide-in pump module will consist of a 300 gallon skid type tank and a Darley Davey 13 HP pump. Other equipment will include an electric rewind booster reel with 100' of 1" booster hose, a roller and spool assembly on each side, a 10 gallon foam tank built into the water tank, a Scotty Fire "around the pump" foam system and a poly hose tray capable of holding 200' of 1.5" hose with a Mattydale swivel.

A 12-volt work light will be installed at the rear to illuminate the pump area.

## **PUMP / BACKBOARD STORAGE AREA - SLIDE IN**

The pump slide-in module will be located in the open storage area at the center of the body. The backboards will have a horizontal storage area incorporated on the top of the left side compartments to accommodate two (2) backboards.

## **ROLL-UP DOORS - MANUFACTURED IN THE USA**

Roll-up type doors manufactured by Robinson (ROM) will be provided for the body side compartments with any necessary replacement parts to be available in 2-3 working days.

The slats of the door to be a double-wall box frame extrusion. Exterior surface to be flat, interior surface to be concave to prevent loose equipment from jamming door. Slats must be anodized to eliminate oxidation. Slats to have interlocking end shoes on every slat secured by Punch-Dimple process. Slats to have interlocking joints with a folding locking flange. Between each slat is a PVC/vinyl inner seal to prevent any metal to metal contact.

The track is one piece aluminum which has an attaching flange and finishing flange incorporated into its design which facilitates installation and provides a finished look to installation without additional trim or caulking. Track to have replaceable side seal. Side seals prevents water and dust intrusion into compartment.

The drip rail is to be supplied by the roll-up door manufacturer. Drip rail will have built in replaceable wiper seal. Drip rail to be made of aluminum.

Roll-up door to have a 4" diameter counterbalance to assist in lifting and eliminate risk of accidental closing.

Doors will be actuated by means of a full-width lift bar, operable by one hand even with heavy gloves. Securing methods will be positive latch devices.

## **REAR TAILGATE**

A tailgate type enclosure will be installed across the rear of the body to close off slide-in pump. The tailgate will be constructed of 0.125" 3003 H22 aluminum treadplate.

## **COMPARTMENT FLOOR TILING - BLACK**

Black floor tiling shall be installed on all compartment floors, shelves and trays. In compartments where shelves or trays are floor mounted, only the shelves or trays will be tiled.

## **PROTRUDING RUBRAILS / ALUMINUM TREADPLATE**

Aluminum treadplate rubrails shall be supplied at each side of the unit below the side compartment door openings. These rubrails will extend past the outside of the unit approximately 1".

The rubrails will be fabricated of aluminum treadplate and formed into a "C" channel design. The top flange will be of a lesser dimension that will allow road dirt and grit to pass through the mounting surface allowing easy cleaning.

The rubrails will be mounted off of a teflon block. The block will space the channel off of the mounting surface and also allow for easy cleanup, and easy replacement as necessary.

### **ADJUSTABLE SHELF-COMPARTMENT MOUNTED**

There shall be eight (8) adjustable shelf/shelves made from .125 D.A.'d aluminum supplied and installed in the compartment. The adjustable track shall be made from aluminum extrusions and run the full height of the compartment. The shelf/shelves shall be allowed to adjust to the full height of the compartment or, as high as equipment will allow. The exact location will be determined at the pre-construction conference.

When each shelf is installed inside the compartment, there shall be supplied an additional light to illuminate the area under the shelf. The light will be mounted on the lower portion of a side wall below the shelf to illuminate the entire compartment.

The shelves will be located two (2) in each of the four (4) full height body compartments.

### **HINGED TOOLBOARD - ALUMINUM**

There shall be two (2) vertically hinged toolboards supplied and installed one (1) each side on the back wall of the over the wheel storage compartments. They will be made out of D.A.'d 3/16 aluminum plate. The toolboards will be as wide and as high as the space allows. The exact location will be determined at the pre-construction conference.

Each toolboard will have a capacity to support a minimum of 150 lbs.

### **ELECTRICAL SYSTEMS – FAST ATTACK VEHICLE**

All electrical equipment installed by the apparatus builder shall conform to the latest Federal Standards as outlined in NFPA #1901. All electrical wire installed by the apparatus builder shall be 12/14/16 gauge GXL wire that is insulated and designed to withstand prolonged temperatures of -30 to +165 degrees F. without melting or fusing. Wire shall be highly resistant to grease, oil, acids, brake fluid and abrasion. Wire shall meet or exceed S.A.E. specifications J1128.

The wire shall be individually color coded and will be labeled every six (6) inches, as to its function, on the insulation (NO EXCEPTIONS). Wiring installed by the body builder shall be run in a plastic protective loom that is held in place with a rubber coated bracket that is fastened in place with stainless steel screws. All loom runs through the upper channeling from the front to the rear. A plastic protective loom is utilized inside the body. All loom passing through any flanges or flat surfaces will be properly grommeted.

All wire harnesses will be easily accessible and replaceable. All wires shall be protected by automatic circuit breakers that will reset.

All connections that are exposed to the elements shall have heat shrink terminals to prevent corrosion. The connectors shall be Duetsch #HD20 and DT Series connectors and be sized to the maximum capacity for longevity of the connector.

A weatherproof power distribution box that provides connection points and power to the apparatus body shall be installed in an enclosure located in the driver's side compartment L-1. There shall also be a weatherproof power distribution box with enclosure installed in the pump panel area that provides connection points and power to the pump panel equipment as well as interlocks for pumping operations.

All electrical equipment switches shall be mounted on a switch panel in the cab and located for driver convenience. A "**LOAD MANAGER**" and a "**LOW VOLTAGE INDICATOR**" shall be supplied and installed on the unit. Light switches shall be of the rocker type with an integral indicator light to show when the lights are energized. All switches shall be appropriately identified.

If the total continuous electrical load exceeds the minimum continuous electrical output rating of the installed alternator, an automatic electrical load management system shall be installed.

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

At the time of delivery a detailed electrical schematic will be furnished. It shall be supplied on a full size print for easy review. All alterations, and changes done to the system, shall be indicated on the electrical print.

**THE FOLLOWING VISUAL WARNING SYSTEM SHALL BE INSTALLED:**

**BACK-UP LIGHT(S):** Mounted one (1) on each side at the lower rear vertical face, in a chrome plated ABS plastic housing. These lights (rectangular shaped) shall be rated at 32 candlepower, with a clear lens and shall be automatically activated when the unit is put into reverse gear.

**CLEARANCE LIGHT(S):** Mounted LED clearance lights shall be installed;

- Three (3)...center of the rear step flange
- Two (2)...rear step flange, one (1) on each side
- Four (4)...upper sides, two (2) at each side

**COMPARTMENT LIGHT(S):** Compartment lighting will consist of 18" LED Night Sticks by OnScene Solutions or equivalent. Each of the four (4) full height compartments will have two (2) sections providing ample lighting to the interiors with shelving. Each of the over the wheel compartments will have one (1) 18" section.

**DIRECTIONAL LIGHT(S):** Two (2) amber arrow LED style guide lights shall be installed, one (1) on each side, at the rear of the apparatus, in a chrome plated ABS plastic housing. The directional lights supplied with the chassis serve this function at the front of the unit.

**REFLECTORS:** Chrome trimmed reflectors shall be installed on the apparatus in accordance with Federal Motor Vehicle Safety Standards.

**STOP-TAIL LIGHTS:** Two (2) stop-tail lights shall be mounted, one (1) on each side, at the rear of the apparatus, in a chrome plated ABS plastic housing. These lights (rectangular shaped) shall be rated at 32 candlepower.

**LICENSE PLATE BRACKET w/ LIGHT:** One (1) license plate bracket will be supplied and mounted at the upper left rear portion of the body towards the roadside. A light shall be supplied on the bracket and activated with the cab light switch.

**BACK-UP ALARM:** There shall be an electronic back-up alarm that shall be activated whenever the chassis is put into the reverse gear. The beeper shall be heard over the engine and surrounding area noises, to warn the immediate personnel that the vehicle is backing up.

### **ELECTRICAL SYSTEM MANAGER (Class 1 Load Manager)**

The Electrical System Manager is a device that monitors the electrical system and controls electrical loads. The system features include:

- Load sequencing and shedding
- Will monitor both main and isolated battery banks
- Fast idle activation output
- Over voltage indicator
- Flashing warning for low voltage and battery discharge
- Rocker switch display panel

No Cab Step Lights

### **LIGHT - FLEXIBLE MAP LIGHT**

A Federal Littlite model #LF12ESB or equivalent flexible neck map light will be supplied and installed at the right side cab area. It will be mounted ahead of the officer's seat and will be controlled at the light. This light will enable the officer to read documents without difficulty during night time operations.

### **SPOTLIGHTS - OPTRONICS - HAND HELD**

An Optronics model KB-4001 or equivalent 400,000 candle power hand held spotlight will be supplied and installed in the center cab. It will be hard wired to the chassis' 12 V. system and will have a bracket installed for quick access to the light.

The light will be a glare free saltwater/Marine version with corrosion-resistant hardware. The light will have a 170-watt Par 46 "BlueEye Beam" sealed beam bulb.

The light will be supplied with 10' of white coil cord and be controlled by means of a momentary switch mounted on the light handle.

## **EMERGENCY LIGHTING PKG/LED**

All electrical equipment installed by the apparatus builder shall conform to the latest Federal Standards as outlined in NFPA #1901. All electrical wire installed by the apparatus builder shall be 12 gauge high temperature wire. This is a high temperature automotive primary wire that is insulated with chemically cross linked polyethylene and withstands prolonged temperatures of up to 350 degrees F. without melting or fusing. Wire shall be highly resistant to grease, oil, acids, brake fluid and abrasion. Wire shall meet or exceed S.A.E. specifications J1128.

The wire shall be individually color coded and will be labeled every six (6) inches, as to its function, on the insulation. Wiring installed by the body builder shall be run in a protective loom that is held in place with a rubber coated bracket that is fastened in place with stainless steel screws. The loom runs under the unit from the front to the rear. A plastic protective loom is utilized inside the body. All loom passing through any flanges or flat surfaces will be properly grommeted.

There will be a wire terminal point that will be used as a test point and for service. The terminal point shall be located in the engine compartment. All wire connections shall be protected with a marine "soft seal" to promote a lasting corrosion free connection. All terminal points will be protected with a hard rubber shield. All wire harnesses will be easily accessible and replaceable. All wires shall be protected by automatic circuit breakers that will reset.

All electrical equipment switches shall be mounted on a switch panel in the cab and located for driver convenience. Light switches shall be of the rocker type with an integral indicator light to show when the lights are energized. All switches shall be appropriately identified.

The following emergency lighting system shall be installed on the apparatus:

### **NFPA 1901 WHELEN OR EQUIVALENT "LED" LIGHT PACKAGE**

The following light package shall be installed on the apparatus in compliance with NFPA 9-8 without exception.

The light package shall be supplied by Whelen or equivalent dealer with a compliance certification as required by NFPA 9-8.15

#### **ZONE A FRONT OF CAB UPPER:**

One (1) Whelen Model FN55QLED EDGE Ultra Freedom or equivalent, all lens 55-1/8" lightbar will be supplied and installed at the center cab roof with clear lens and red filters.

The light bar shall be controlled with a rocker switch located in the cab at the control console.

The lights shall be wired to a switch located in the apparatus cab and setup to go blocking right of way mode when the parking brake is engaged. The center lights shall shut down while in this mode.

### **ZONE A FRONT OF CAB LOWER:**

Two (2) Whelen model 70R02FRR 3" x 7" SUPER-LED or equivalent lights with red lenses shall be installed on the front of the cab, either grill mounted or surface mounted in a Whelen 7EFLANGE or equivalent. These lights shall be wired to a switch located in the apparatus cab.

### **ZONE B/D LEFT AND RIGHT HAND OF CAB AND BODY-UPPER**

This area shall be covered by the lightbar and the lights described in Zone C.

### **ZONE B/D LEFT HAND AND RIGHT HAND OF CAB AND BODY-LOWER**

Two (2) Whelen model 70R02FRR 3" x 7" SUPER-LED or equivalent red lights shall be installed one (1) each side of the apparatus on the front bumper ends or cab sides with a 7EFLANGE or equivalent.

Two (2) Whelen model 70R02FRR 3" x 7" SUPER-LED or equivalent red lights shall be installed one (1) each side at a location as close to a center of the apparatus as possible with a 7EFLANGE or equivalent.

### **ZONE C REAR OF BODY-UPPER**

Two (2) Whelen model L31HRF SUPER- LED or equivalent 360-degree beacons equipped with integral marker/cruise lights shall be installed on the rear upper portion of the body, one (1) each side. These lights shall be wired to a switch located in the apparatus cab.

### **ZONE C REAR OF BODY-LOWER**

Two (2) Whelen model 60R02FRR SUPER-LED or equivalent red lights shall be installed on the rear of the body in a common bezel with the tail lights. These lights shall be wired to a switch located in the apparatus cab.

### **DOOR AJAR WARNING LIGHT**

A red flashing warning light minimum of 2" diameter shall be provided to warn driver of open exterior compartment doors. Exact location to be determined at pre construction conference.

### **SCENELIGHT - WHELEN 70K000ZR 8-32 DEGREE OR EQUIVALENT**

Two (2) Whelen Model 70K000ZR or equivalent scene lights shall be installed. They shall have single halogen lamps, wide angle light heads, and be flush mounted. The lights shall be supplied with a prismatic inner lens to direct the light at a 8-32 degree angle.

The scene lights shall be controlled with a rocker switch located in the cab at the control console.

The scene lights shall be located one (1) each side on the inner rear body panels to provide adequate lighting to the pump module.

### **UNDERCOATING - BODY**

The underside of the apparatus body shall be thoroughly prepared and treated with sprayable copolymer to help prevent rust and corrosion.

Areas to be sprayed will include the interior door panels, inner wheelwell areas outside of the fenderliners, the entire bottom of the apparatus body, and the upper interior body area where the tank is installed before and after paint.

All substructure under the body, and running board areas will be undercoated thoroughly. Due to warranties specified this requirement will be strictly enforced. NO EXCEPTIONS

The copolymer is a sprayable coating designed for use on aluminum, fiberglass, cold rolled steel, galvanized steel, and most metal primers. The copolymer is formulated to give very good corrosion protection even when applied as thin as 15 mils. wet. This medium viscosity, sag resistant coating can be easily sprayed onto exposed underbody areas, and into restricted areas such as tubing and "hidden " areas accessible only with spray wands. Wet film builds of up to 40 mils. can be applied without runs, drips, or sags.

The copolymer dries quickly at ambient temperatures and will withstand urethane paint bakes after only 30 mins. drying at room temperature.

Copolymer's volatile organic content is lower than all coating limits established today. Copolymer provides better protection than any of the competitive products tested without the environmental and safety problems inherent in many of the undercoatings available today.

A minimum of 30 mils. will be applied to the surfaces.

Due to the various adverse operating conditions the apparatus is forced to work in, and the 10 year structural warranty provided, this must be adhered to. All steps of this operation will be carefully monitored and enforced.

### **BODY FINISH - PAINTING PROCEDURE**

The cab and body will be painted white with the exception of the roll-up doors specified for Sedro-Woolley. The cab will be painted in Ford's Oxford White and body will be painted to match using PPG's Evolution process. Roll-up doors will be left in a natural satin finish. The cab and body complete with fabricated doors for Skagit County Fire District #8 will be painted red. The cab will be painted in Ford's Fire Engine Red and body will be painted to match using PPG's Evolution process.

## **1) INITIAL CLEANING AND BODY PREPARATION**

SUBSTRATE: Aluminum and Fiberglass

A) CLEAN: The entire unit will be washed and cleaned thoroughly using a DX 436 Wax and Grease remover prior to any sanding, blasting, or body work to prevent the impingement of contamination into substrate.

B) CLEAN: Use only clean rags. Change rags as often as needed. Never let the DX 436 to air dry on the unit.

C) SAND: Thoroughly abrade with DA 80 grit. Sand all fiberglass with 320-400 grit on a DA sander.

D) CLEAN: Blow off all sanding dust and reclean unit using DX436 wax and grease remover.

E) MASKING: Mask unit as needed followed by a tacking off removing all dust.

NOTE: Apply primer within 8-hours of abrading. For larger surfaces, sand only the areas that can be primed in the time frame.

## **2) ETCHING FILLER (Preparation; Mixing; and Application Procedures of Etch Filler)**

A) MIX: PPG F3069 Etching Filler part (F3960) with part (F3961 Catalyst) Refer to Product Bulletin DFT031 for information. Due to product setting it is important to shake F3960. Stir the two (2) component mixture thoroughly.

B) APPLY: Set air pressure at 35-40 psi at the gun apply 1-2 coats on all bare metal. 8-10 psi at the air cap for HVLP. 1.1 - 1.6 mm Fluid Tip

C) POT LIFE: 24 hour @ 70 degrees F. Pot life is defined as when a "Product Doubles in Viscosity"

D) DRY: Allow F3960 Etching Filler to dry 30 minutes before applying primer surfacer, but No longer than 72 hours or F3960 must be sanded and recoated. NOTE: This is the foundation for the entire priming and painting process. If proper dry times are not followed, the rest of the system will begin to show signs of swelling and sand scratches will appear.

E) DRY FILM BUILD: For optimum performance of the primer, total dry film per coat should be a minimum of 0.5 mils and maximum 87m of 1.0 mils.

## **3) PRIMER/SURFACER (Primer Preparation; Mixing and Application Procedures)**

A) MIX: PPG F3963 Primer/Surfacer mixes three (3) parts (F3983) to one (1) part (F3984 Hardener)

NOTE: Due to product setting, it is important to shake F3983 Primer to obtain filling and adhesion properties. Thoroughly mix all components.

B) APPLY: Set air pressure at 40-5 psi at the gun apply 2-4 full wet coats 8-10 psi at the air cap for HVLP 1.4-1.6 mm fluid tip. ALLOW 10-15 MINUTES FLASH BETWEEN COATS.

C) POT LIFE: 1-1'2 hours @ 70 degrees F. Pot life is defined as when a "Product Doubles in Viscosity"

D) DRY: Allow (F3983 Primer to air dry for 2-4 hours @ 70 degrees for 2-3 mils. 12 hours @ 70 degrees F. for 6-10 mils.

#### **4) PRIMER SEALER: Primer Preparation; Mixing and Application Procedures**

A) MIX: PPG F3986 Primer mixed three (3) parts (F3985) to one (1) part (F3260 Hardener) 6 oz F3400 or 3405 per RTS gal.

NOTE: Due to product setting, it is important to shake F3985 Sealer to obtain filling and adhesion properties. Thoroughly mix all components.

B) APPLY: Set air pressure at 40-50 psi at the gun apply 1-2 wet coats. 8-10 psi at the air cap for HVLP. 1.4-1.6 mm fluid tip. Allow 10-15 minutes flash between coats.

C) POT LIFE: Two (2) hours. Pot life is defined as when a "Product Doubles in Viscosity"

D) DRY: Allow F3985 Primer to air dry 30-60 minutes @ 70 degrees F. before applying topcoat.

E) RECOAT: Must be sanded after 8 hours before topcoating. Sand with 320 grit paper. After sanding, MUST be topcoated within 12 hours.

F) DRY FILM BUILD: For optimum performance of the primer, total dry film per coat should be a minimum of 1.0 mils.

#### **5) BASECOAT: Basecoat Color Mixing and Application Procedures.**

A) CLEAN: If needed, tack off the entire area.

B) MIX: FBCH Basecoat mixes one (1) part (FBCH) to one (1) part (F3260 CATALYST) 1/2 part (3440).

A solvent selection too fast for the conditions will result in "fat" film builds that take extra time to flash. These "fat" films cause gloss dyeback, shrinking, swelling and solvent entrapment leading to solvent pop. A better practice is to choose a solvent one step slower than the current conditions.

C) APPLY: Apply one (1) cross coat or two (2) coats or until hiding is achieved. Set air pressure at 45-55 psi at the gun. 8-10 psi at the air cap for HVLP. 1.1 mm Fluid Tip with a pressure pot. 1.3-1.5 mm Fluid Tip with a gravity gun.

D) POT LIFE: Two (2) hour Pot life at 70 degrees F.

E) DRY: Apply 20 Minute Flash prior to clear coating. Must be clear coated within 24 hours. Apply clearcoat as needed follow section 6 for clear coat process. Allow to air dry for 60-90 minutes before masking off strips. Mask off strips, tack and follow the listed procedures for allying basecoat color. Shortened flash times to clearcoat can cause pigment floatation, metallic distortion (mottling), loss of gloss, swelling and/or solvent popping. BUT NO LONGER that 8 hours or FBCH color must be sanded and recoated.

F) DRY FILM BUILD: For optimum performance of the FBCH basecoat, total dry film per coat should be a minimum of 0.5-1.5 mils.

#### **6) CLEARCOAT: Clearcoat Mixing and Application Procedures**

A) INSPECTION: Inspect painted areas for uniformity in color and hiding.

B) CLEAN: Tack off the entire area to be cleaned only of necessary.

C) MIX: F3930 mixes three (3) parts (CLEAR) to one (1) part (F33zz Reducer) and one (1) part (F3260 Catalyst) 2 oz F3400 or 3405 or 3410 per rts gal.

#### **SOLVENT SELECTION**

Cool Temp F3320 60-70 (F)  
Med. Temp F3330 65-80 (F)  
Warm Temp F3340 75-90 (F)  
Hot Temp F3350 85 and above  
Hot Temp F3360 95 and above

#### **CATALYST SELECTION**

General Purpose  
(F32360 CATALYST)

A solvent selection too fast for the conditions will result in "fat" film builds that take extra time to flash. These "fat" films cause gloss dyeback, shrinking, swelling and solvent entrapment leading to solvent pop. A better practice is to choose a solvent one step slower than the current conditions. Thoroughly mix all three (3) components prior to use.

D) APPLY: Set air pressure at 45-55 psi at the gun apply two (2) full wet coats. 8-10 psi at the air cap for HLVP. 1.3-1.5 mm Fluid Tip.

E) POT LIFE: 5-6 hours @ 70 degrees F. Pot life is defined as when a "Product Doubles in Viscosity"

F) DRY: Air dry overnight at 70 degrees F

G) POLISHING: Allow finish to sit 16 hours @ 70 degrees F before polishing. Select the finest grade of wet/dry sand paper possible when sanding clearcoat finished. If sanding and polishing is required, PPG recommends the use of 1200 grit or finer along with the use of a foam polishing pad. Follow the recommendations of the polishing company currently used.

H) FILM BUILD: For optimum performance of the F3930 Clear. Total dry film should be a minimum of 2.0 mils.

## **7) SPOT REPAIR: Color & Clear Mixing and Application Procedure**

A) With an Air Blow Gun, clean the entire panel and follow with DX436 cleaning.

B) SANDING: DA and repair area using 400 grit, dry

C) FILLING SCRATCHES: Inspect the area to be primed for imperfections. If found, repair.

D) FINAL SAND: Final DA sand repair using 600 grit dry followed by a hand scuff using gray 3M scuff pad.

E) CLEAN: Mask off repair areas and reclean with DX436 Wax and Grease Remover followed by a tack.

F) BARE METAL: If repair has bare metal, apply primer following step in section 2.

G) RE-APPLY TOPCOAT: Re-apply topcoat as needed following details in section 5 & 6.

H) BLENDING: Set air pressure at 30-40 psi at the gun apply DX840 blending solvent per instruction label on the blend edge. All color, clear and blending solvent must be applied within scuffed area. Allow 5-10 minutes flash between coats.

I) DRY: Air dry overnight maintaining a minimum of 65-degree F

For two toning, six hours to tape, recoat after 8 hours and apply a second color within 36 hours without sanding at 70 degrees/50% RH. After 36 hours, abrade thoroughly with 600 grit or equivalent.

NOTE: If second color is not applied before 36 hours, scuff with 600 grit or equivalent, air blow clean, clean with DX436, tack and shoot.

## **8) CORROSION PROTECTION**

All lap moisture joints and seams must be treated with a quality caulking filling all gaps to prevent moisture from entering the joint.

Use rubber/plastic gaskets on all door handles and any other bolt on pans.

Allow to cure for 5-10 days before applying reflective tape or lettering.

Install dielectric tape between all stainless steel hinges.

Pre-drill as many mounting holes before entering the painting process. All accessories that require a hole drilled for mounting after the unit is painted MUST have an application of a compound (Loc-Tite; Eck; or equal) applied on all mounting screws.

All bolt on parts (doors etc.) must have an application of (Loc-Tite; Eck; or equal) applied to the mounting screws.

On all bolt on parts (doors etc.) when wiring a light, power lock, power window, etc. use a ground wire back to the body, not the door.

Apply 3M double face adhesive tape between all diamond plate aluminum panels and the finished painted body. Make sure that there is a drain hole for proper drainage.

**POT LIFE:** Any product that uses a catalyst or hardener to complete the curing process, has a pot life. As previously stated, a pot life is defined as: When a "product doubles in viscosity". When this happens, the product must not be applied, but disposed of in the correct manner.

Remember the 15 degree rule which states that every 15 degree shift from 70 degrees (f) will decrease or increase the pot life and dry times by half.

**MATERIAL FILM BUILD:** Every attempt must be made in keeping the application of any material in the process, primers, color and clearcoats to the manufacturer's stated limits. Film builds that are too low cause adhesion and corrosion concerns. Film builds that are greater than recommended can cause solvent entrapment, cracking, loss of gloss and adhesion concerns.

**SAFETY:** The above materials that are combustible may cause sickness and/or irritation if exposed internally. Proper handling and storage must be adhered to at all times.

**NOTE: A ten (10) year paint warranty will be supplied with the unit. The ten (10) years are 100% non-prorated.**

The warranty shall cover the following defects:

- 1) Bad adhesion of the paint system resulting in rusting (less than grade 5 ASTM D610-85).
- 2) Cracking of the paint system (as set out in ASTM D661-86).
- 3) Bad adhesion of any element of the paint system resulting in appearance below the standards set out in ASTM D1654-79a, table 2, rating 6 or lower.
- 4) Fading or loss of gloss below the standard set out in ASTM D659-86, value no. 6 or lower.

Under this warranty, the manufacturer shall replace the defective paint system and shall pay all reasonable direct labor costs to repaint the vehicle. (This shall exclude overhead and profit)

#### **4" STRIPE REFLECTIVE**

A 4" stripe will be installed around the entire perimeter of the unit as required per 1901. It will be located so it will be no higher than 48" from the ground to the top of the stripe. This will afford a better reflective capabilities at normal headlight levels.

The entire edge of all reflective striping will be edged with 1/4" blue striping. This will aid in sealing the edges of the material, and guard against cracking.

3-M reflective materials shall be used.

## **DOOR DECALS**

Door decals will be installed on both forward cab doors as follows:

\* Sedro-Woolley

**Sedro-Woolley Fire Department**