



LASSEN COUNTY SHERIFF'S OFFICE

Dean F. Growdon, Sheriff - Coroner

1415 Sheriff Cady Lane Susanville, CA 96130

Administration	Dispatch	Civil	Adult Detention Facility
Phone (530) 251-8013	Phone (530) 257-6121	Phone (530) 251-8014	Phone (530) 251-5245
Fax (530) 251-2884	Fax (530) 257-9363	Fax (530) 251-2884	Fax (530) 251-5243

To: Lassen County Board of Supervisors

From: John McGarva #104, Captain-Custody Division Commander

RE: Purchase of New Transport Vehicle

Agenda Date: June 14, 2022

Subject:

Purchase of Ford F-350 Transport Vehicle from Braun NW, Inc. in the amount of **\$170,811.71**. The specifications of the van are included in the packet. The new van will come with the capacity to transport up to 13 prisoners.

Discussion:

Vehicle Specifications:

The proposal from Braun NW included specifications for the vehicle we requested to purchase. They are included in the packet. The proposal includes a 4x4 vehicle chassis. This vehicle will not require any special endorsements to operate. The purchase of this transport vehicle will allow for safer transports for both deputies and prisoners.

Prisoner Classification and Segregation:

In 2021, Lassen County purchased a large van holding 18 passengers from Braun NW replacing one of the E-350 Econoline vans. This vehicle allowed for the transportation of 18 inmates including a restroom on board. This van will be a smaller version with an F-350 chassis. This van will be able to safely segregate and transport up to 13 inmates. This will replace the remaining van which was purchased in 2008. The interior door panels are destroyed. The vehicle will often lock into "park" and required a fuse to be changed before becoming operable. This vehicle's sliding passenger side door has locked closed and we have had to force it open on more than one occasion. This presents a safety risk for those being transported. The vehicle has been relegated to local use only so we can send someone out to repair it in a timely manner.

Even with local transports the segregation of classifications can be difficult. Certain classifications cannot be seated or placed together even during short transports (ex. Sex offenders with General Population, Rival Gangs). The Jail often transports inmates who are assaultive to other inmates and/or staff resulting in the need for the additional security this van can provide.



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Delivery of the vehicle is estimated at approximately 18 months from the date of the signed proposal.

Bid Requirements:

Braun NW, Inc. participated in a competitive bid process for the same vehicle listed on the Houston-Galveston Area Council cooperative Agreement for Public Services.

Fiscal Impact:

The cost of the vehicle will be attributed to the Sheriff's Office budget 130-0525 in the amount of **\$170,811.71**. This includes the cost of the vehicle plus sales tax. The funding request would be from the General Fund.

Recommendation

Authorize the CAO to sign the proposal purchasing the vehicle from Braun NW, Inc. in the amount of \$170,811.71.

BRAUN-NW inc.

150 North Star Drive / PO Box 1204 / Chehalis, WA 98532 / 360.748.0195 / 800.245.6303 / fax 360.748.0256

HGAC PROPOSAL

June 2, 2022

Lassen County
Attn: Dean Growdon
1415 Sheriff Cady Lane
Susanville, CA 96130
dgrowdon@co.lassen.ca.us

RE: One (1) 2023 North Star 143-5 Prisoner Transport

Braun Northwest is pleased to offer the following proposal which is based upon HGAC contract AM10-20:

One (1) 2023 North Star 143-5 Prisoner Transport on a 2023 Ford F-350 4x4 Ambulance Prep diesel chassis per enclosed specifications dated 5/2/22 and drawings dated 5/7/20 with the following changes:

- Utilize a 2023 Ford F350 4x4 Diesel chassis

Base price HGAC CC02	\$119,345.00
Published/Unpublished options taken	<u>\$ 38,920.00</u>
Subtotal for one (1) vehicle	\$158,265.00
HGAC Fee	<u>\$ 1,000.00</u>
Total for one (1) vehicle F.O.B. Susanville, CA	<u>\$159,265.00*</u>

Sales tax not included

F.O.B.: Susanville, California

Delivery: Approximately 400 – 420 days, based upon current manufacturing plan and receipt of chassis.

Terms: Ninety percent (90%) payment due upon receipt of vehicle. Balance due in thirty (30) days.

Above pricing includes roundtrip travel chargers for two persons flying from Reno, NV to Seattle, WA for Final Inspection.

***Note:** The above pricing is based upon estimated 2023 model year chassis pricing and is subject to change when new pricing is released by Ford.

(Note: This bid is contingent on use of customer's Government Ford Fleet Identification Number.) Failure to secure a FIN will increase the price by the amount of the GPC chassis discount.

Braun Northwest, Inc. is a California dealer (16055) with insurance information available upon request.

Respectfully Submitted by:
Braun Northwest, Inc.

We agree to accept the above proposal:
Lassen County


Terri McCallum, V.P. Sales

Signature

Date

Printed Name

Title



TM
cc BC

Enclosures: Specifications, drawings.

EMERGENCY VEHICLES

www.braunnw.com

BRAUN NORTHWEST, INC.
DETAILED SPECIFICATIONS
FOR
PRISONER TRANSPORT
LASSEN COUNTY SHERIFF' S OFFICE
SUSANVILLE, CALIFORNIA

1 CHASSIS

1.01 OEM CHASSIS (Different than as shown in drawings)

- 2023 Ford F-350 XLT, Regular Cab, 4 x 2, meeting all the specifications of Section 1.01 (*Chassis is subject to model year changes*)
 - Ambulance Prep. Package with EPA Special Emergency Vehicle Emissions (47L)
 - 3-year/36,000 mile "Bumper to Bumper" warranty
 - 5 years/100,000 mile Powertrain warranty
 - Dual Rear Wheels
 - Provided by Braun Northwest

1.01.01 SPECIFIC RATINGS

- Drive – 4 x 2
- G.V.W.R. – 14,000 lb
- Front Axle – 5,250 lb
- Rear Axle – 10,040 lb
- Wheelbase – 169"
- Cab to Axle – 84"
- Front Spring Capacity – 5,250 lb
- Rear Spring Capacity – 10,040 lb
- Rear Differential – 4.10 ratio, limited slip wide track rear axle

1.01.02 POWER TRAIN

- Engine
 - 6.7L Power Stroke V8 turbo diesel B20
 - Diesel Emission Fluid (DEF) System with operator commanded regeneration
 - Exhaust Brake
 - External oil cooler
 - Factory diesel package
 - Engine block heater
 - Heavy duty dry type air cleaner with flow restriction indicator
- Engine Cooling System
 - Heavy duty, closed-air, free-liquid state type
 - Coolant recovery system
 - 50/50 solution Permanent type antifreeze to –34 degrees F
- Transmission
 - TorqShift 10-speed automatic transmission with selectable drive modes
 - External oil cooler in chassis grille area
 - Tow/Haul Mode

- Exhaust System
 - System complies with Federal Motor Carrier Safety Regulations, Part 393.83
 - Suspended using three hangers, excluding manifold attachment
 - Discharge at right rear side of module
 - Tailpipe shall not terminate within twelve inches of the vertical axis of the fuel tank filler opening.

1.01.03 STEERING

- Power assisted
- Tilt steering wheel

1.01.04 SHOCK ABSORBERS/STABILIZER BARS

- Heavy-duty shock absorbers front and rear
- OEM front and rear stabilizer bars

1.01.05 BRAKES

- Heavy duty power assisted four wheel ABS; front and rear disc
- Front 13.66" diameter; Rear 13.39" diameter
- Trailer Brake Controller

1.01.06 TIRES AND WHEELS

- Seven OEM LT245/75Rx17E all-season PLUS steel belted radials
- Seven OEM 17" steel wheels
- Spare tire and wheel shipped loose
- OEM jack and tire changing tools

1.01.07 ELECTRICAL

- Alternators – OEM Dual rated at 397 Amps total
- Batteries – OEM Dual 750 CCA each
- Stationary Elevated Idle Control

1.01.08 INSTRUMENT PANEL AND CONTROLS

- Gauges
 - Speedometer
 - Tachometer
 - Fuel Level
 - Engine Coolant Temperature
 - Transmission Fluid Temperature
 - Turbocharger Boost
 - Odometer/Trip Odometer
- Tire Pressure Monitoring System
- Cruise Control, with steering mounted controls
- Audio – OEM AM/FM/SiriusXM radio with three month prepaid subscription
- SYNC 3 - Voice-Activated communications and entertainment system with 8" touchscreen in center stack
- 4.2" LCD Productivity Screen in IP Cluster with Compass Display
- Two USB Ports
- Ford Pass® Connect 4G Wi-Fi Modem

1.01.09**CAB EXTERIOR**

- Trim Level – XLT
- Bumper – Chrome
- Grille – Bright Chrome
- Tow Hooks – Two front
- Front Splash Guards (61S)
- Horn – OEM dual electric
- Windows – Solar Tinted
- Windshield wipers – Two-speed electric, washer and intermittent speed control
- Mirrors
 - Two black, below eye level, manually telescoping trailer tow
 - Power, heated glass, upper portion
 - Turn Indicators and clearance lights on outside edge
 - Lower portion heated convex
- Lights
 - Headlamps – Auto On/off, Quad beam jewel effect
 - LED Roof clearance lights
- Fuel – OEM 40 gallon tank

1.01.10**CAB INTERIOR**

- Trim Level – XLT
- Seats – OEM
 - Cloth 40/20/40
 - Combination lap and shoulder harness
 - Side door armrest
- Flooring – Black Vinyl
- Climate Control – OEM
 - Heavy duty, fresh air, high capacity heater/defroster
 - Dehumidifying air conditioning system
- Airbags
 - Driver and Passenger frontal and side airbag/curtain
 - Passenger side airbag deactivation switch
- Other
 - Dome light, with dual map lights
 - Auxiliary 12VDC PowerPoint
 - Interior hood release
 - Power door lock & windows
 - Remote keyless entry w/Anti-Theft
 - Adjustable gas and brake pedals

1.01.11**COLORS**

- Exterior – Oxford White (Z1)
- Interior – Medium Flint Gray

1.02 **CHASSIS MODIFICATIONS**

The following modifications will be made to the chassis by Braun Northwest.

1.02.04 **EXHAUST HEAT SHIELDS**

Shall be formed from 20 ga. galvanized sheet metal with stamped reinforcements and formed edges. Access openings shall be provided for shock absorber, mounting bolts, etc. Heat shields shall be bolted to chassis frame and extend from back of cab to the frame cross member just behind the rear axle.

1.02.05 **RUNNING BOARDS**

Running boards made of 0.125" bright aluminum diamond plate for a Ford F-350 Regular cab shall be securely mounted on both sides of the chassis with OEM fasteners.

1.02.09 **MUD FLAPS**

Mud flaps with the "NORTH STAR" logo shall be installed behind each rear wheel.

1.02.21 **CHASSIS LIGHTING**

A 3" Whelen #3SR00FRR Red Lens Red LED flashing door open indicating light shall be installed in the headliner (Section 6.12 related).

1.02.32 **DRIVE LINE GUARD**

A U-bolt driveline guard shall be installed.

1.02.36 **AUXILIARY COMPRESSOR**

A TM-16 auxiliary air conditioning compressor kit shall be added to the OEM engine (Section 5.17 related.)

1.02.39 **WEAPONS STORAGE**

Locking handgun storage shall be provided as part of the driver's console (Section 6.09 related).

1.02.43 **CHASSIS MODIFICATIONS**

Two antenna cables shall terminate behind the driver's seat (Section 6.19 related).

Two blind-spot cameras shall be installed below OEM side-view mirrors and a rearview mirror/monitor shall be installed on the chassis windshield (Section 6.46 related).

1.02.60 **CAB CONDUIT**

A 5.5" cab conduit shall be installed between the cab and module located behind the driver's seat. The driver's console harness shall be routed through the conduit.

1.03 **MODULE-TO-CHASSIS MOUNTING SYSTEM**

1.03.01 **MODULE MOUNTING SYSTEM**

The module shall be bolted to the chassis frame in no fewer than twelve locations. Each mounting location shall include a hard rubber isolation pad between the chassis frame and the module lateral. The rearmost lateral(s) shall be connected to the frame extensions with 5/8" grade 8 bolts. All remaining laterals shall be connected with vertical 3/4" grade B7 eye bolts fastened to the frame rails with horizontal 3/4" grade 8 hex bolts. All bolts shall be secured with locking nuts.

2 MODULAR CONSTRUCTION

All material utilized shall be of the correct type, alloy, and thickness to withstand the intended usage and provide protection against cracking, corrosion, or metal fatigue. All materials utilized shall be of open stock origin, commonly available through local sources, for rapid and economical repair or modification of the body. Any use of proprietary parts or materials in the construction of the body is unacceptable, due to potential delays or difficulties in future repairs or service. NO EXCEPTIONS TO BE TAKEN IN THIS AREA. This specification has been designed and written to fill specific needs of this agency. Where brand name, make, or model of equipment has been specified, no exceptions shall be allowed. Where compartment and cabinet sizes have been specified, bidder must bid substantially (plus or minus 1") the size specified.

The module shall have a transferable lifetime structural warranty.

2.01

MATERIALS

EXTRUSIONS	SIZE	ALLOY
Structural Tubin	1" x 2" x 0.125" sq.	6063-T52
Structural Tubing	2" x 2" x 0.125" sq.	6063-T52
Structural Angle Cross Members	3" x 3" x 0.375"	6061-T6
Structural Channel Cross Members	1.5" x 0.25"	6061-T6

FORMED SHEETING	SIZE	ALLOY
Skin/Roof/Compartments/Subfloors/Doors	0.125"	5052-H32
Interior Cabinets	0.090"	5052-H32
Diamond Plate	0.125"/0.08"	3003-H22
Stainless Steel	16 ga., 20 ga.	304 # 4B

2.02X

MODULE DIMENSIONS

Overall vehicle length to be confirmed at preconstruction meeting.

Length	21 ' "	1.25 "	253.25 "
Width (excluding mirrors)	7 ' "	10 "	94.00 "
Height (Approximate)	7 ' "	10.00 "	94.00 "

Exterior Module Dimensions (Specifications are listed as minimums.)

Length	11 ' "	11 "	143.00 "
Width	7 ' "	10 "	94.00 "
Height	6 ' "	1.375 "	73.38 "

Interior Dimensions (Specifications are listed as minimums.)

Length	Forward Wall to Rear Wall	135.00 "
Width	Left Wall to Right Wall	89.00 "
Height	Floor to Ceiling	57.00 "

2.03 STRUCTURAL FRAMING

Side wall and rear wall construction shall consist of 2" x 2" x 0.125" aluminum square tubing extensions welded together with a maximum of 14" centers. 1" x 2" x 0.125" aluminum tubing may be utilized in addition to 2" x 2" tubing to accommodate custom compartment sizes. The bottom of the wall structure shall be sealed with a welded 2" x 2" tube, a 2" x 2" angle, or a 0.125" plate depending upon location. The wall structure shall be capped with a 2" x 4" x 0.125" header upon which a 2" x 2" x 0.125" roof structure is welded. This process provides a unitized roll cage structure for greater occupant safety. The front wall structure shall be constructed of formed aluminum channels to allow ample space for wiring raceways, heater hoses, and A/C hoses.

2.04 FOUNDATION SYSTEM

The foundation system shall consist of a 0.125" aluminum sheet subfloor with foundation members securely welded under the subfloor. Transverse members (laterals) shall consist of 3" x 3" x 0.375" structural angles with 1.5" x 3" x 0.25" channel(s) above the fuel tank. 0.25" x 1.5" aluminum stringers shall span longitudinally between the laterals.

2.05 MODULE SEAMS

All body and compartment seams at or below floor level shall be full-seam-welded. The entire perimeter of the subfloor shall be completely sealed with a caulking material, creating a watertight seam.

2.06 EXTERIOR SKIN

A Norton NORBOND closed-cell, polyurethane foam tape with high-performance acrylic adhesive shall be utilized full length on all front and rear wall and roof frame members. A polyurethane adhesive sealant shall be applied to the edges of framing members that are bonded with NORBOND tape. An advanced two-part methacrylate structural adhesive shall be used to bond all side wall tubes to the exterior skin and door frames.

The module shall be constructed utilizing full-size sheet construction to minimize body seams. There shall be no corner or mid-body seams.

2.07 MODULE ROOF

In order to improve module strength and minimize exposed seams, the roof shall be seamed transversely, shall have a 1.5" radius along the edges, and shall be welded to 2" x 4" wall header tubes 4.75" below the roof line. The roof shall be supported by positive contact between sidewall framing and roof framing. All seams on the roof surface shall be continuously welded and body-worked on the outside. In order to avoid the possibility of paint and/or weld cracking, no extrusions shall be used in the exterior construction of the roof or corners of the module.

A contoured, 3/8" aluminum plate, painted to match the module, shall be welded to the roof structure and project through the center of the roof to serve as anchorage for personal fall arrest equipment. The anchorage is designed and rated for a single person only.

2.08

MODULE EXTERIOR COMPARTMENTS

All compartments shall be constructed from formed 0.125" aluminum, securely welded to the subfloor and structural framing. A baffled drain hole shall be provided in all exterior compartment bottoms that extend below the floor line. All exterior adjustable shelves shall be mounted on heavy-duty aluminum track, which is securely welded to compartment interiors. Each shelf shall support at least 300 lb. of equipment.

COMPARTMENT #1

Interior Dimensions – 16.25"W x 52.5"H x 17.5"D (Upper)

Doorway Dimensions – 16.25"W x 55.5"H

Location – Streetside, forward

Shelving – Two adjustable

Door(s) – Single

Additional Instructions –

1. The electric panel shall be installed on the back wall in the upper portion (Section 6.01 related); door panel shall be two-piece ABS, split horizontally, and held in place with hook-and-loop tape.
2. A Safety Vision audio/video security system recording drive and UPS will be located in Compartment #1; exact location to be confirmed at preconstruction meeting (Section 6.46 related).
3. The lower portion of the compartment shall be transverse to Compartment #3.

COMPARTMENT#2

Interior Dimensions – 35.25"W x 27"H x 19"D upper (15.75"D lower)

Doorway Dimensions – 35.375"W x 27"H

Location – Curbside, rear

Shelving – None

Door(s) – Single

Additional Instructions –

1. The bottom of the compartment shall be recessed to accommodate a spare tire.
2. A tire mount bracket shall be mounted on the back wall with the spare tire mounted in the compartment (Section 4.19 related).

COMPARTMENT#3

Interior Dimensions – 16.25"W x 27"H x 11"D (Lower)

Doorway Dimensions – 16.25"W x 27"H

Location – Curbside, forward

Shelving – None

Door(s) – Single door

Additional Instructions –

1. Shall be transverse with Compartment #1.

2.09P

DOORS

The doors shall be box-pan-formed with a total thickness of 2".

An interior painted hex-punched 0.125" formed aluminum security door with a solid perimeter, horizontal latch stile, non-locking paddle latch, and deadbolt lock shall be installed inside the Cell #1 and Cell #2 exterior doors.

Dual interior painted hex-punched 0.125" formed aluminum security doors, each with a solid perimeter, horizontal latch stile, non-locking paddle latch, and deadbolt lock shall be installed inside the Cell #3 exterior door.

- 2.09.01 DOOR SEAL**
Each door frame shall have a flange for the installation of an air cell hollow core 360-degree compression door seal. This seal creates watertight, dust-free compartment integrity. Door seal shall be knock-on type. Door frames shall be bonded to the adjacent tubes such that no exterior flange is required.
- 2.09.02 DOOR HINGES**
Compartment and passage doors shall have full-length, piano-type, 2.5"W stainless steel hinges, positioned with 0.25" rivets at each end. The hinges shall be attached with #12 x 0.75" stainless steel truss head screws spaced 4" apart, sealed with Sikaflex. All curbside and streetside side-hinged single doors shall be hinged on the forward sides, and all rear side-hinged doors shall be hinged on the outboard sides.
- 2.09.03C DOOR LATCHES**
Exterior door handles shall be semi-flush, chrome-plated Eberhard E Grabber #21100. All exterior doors shall have rotary latches and striker posts that meet FMVSS 206 requirements. Striker posts shall be adjustable and be secured with a nut from behind the door frame. The striker washer shall not be removed. Guards shall be added to the top of the striker posts at the bottom of double passage door openings to reduce the risk of snagging clothing or leg chains when exiting. Doors greater than 45" tall shall have double rotary latches activated by stainless steel rods. Once final adjustments have been made, threads shall have Loctite or equivalent applied. All double-door compartments shall have an exterior E Grabber handle and rotary latches on each door. Doors shall latch to doorframe-mounted striker posts only and not to one another. All locks shall be keyed J236.
- 2.09.04X COMPARTMENT DOOR CONTROL**
A heavy-duty, double-spring door control capable of holding the door open at approximately a 90-degree angle on any road surface shall be installed at the top of Compartment #2.
Compartment #1 shall have one grabber-type hold-open device with replaceable rubber catch.
Compartment #3 shall have a 0.75" rubber bumper.
- 2.09.05X CURBSIDE/STREETSIDE DOOR CONTROL**
Curbside and streetside door controls shall each be one grabber-type hold-open device with replaceable rubber catch, per door.
- 2.09.06 REAR DOOR CONTROL**
Rear door controls shall be one grabber-type hold-open device with replaceable rubber catch, per door.
- 2.09.07P COMPARTMENT DOOR SKINS**
Each compartment door skin shall be made of 0.080" bright aluminum diamond plate, shall be removable, and have a latch service opening with a 2.25" x 4.5" black rubber plug for lubrication and service. door skins shall be secured with #8 pan head screws and Sikaflex.
- 2.09.08P ENTRANCE DOORSKINS**
Shall be 0.080" bright aluminum diamond plate and be removable to service door hardware. A diamond plate cover shall be installed over the latch access hole with #8 pan head screws and Sikaflex.

2.09.09X**ENTRANCE DOORWAYS**

One curbside, one streetside and two rear module entrance doors shall be provided. The curbside, and streetside doorway dimensions shall each be 32"W x 58.75"H. The rear doorway dimensions shall be 49.75"W x 54.5"H.

2.09.10**THRESHOLDS**

All compartment and module access door frames shall have full-width-formed stainless-steel threshold plates to protect the lower edge of frame.

2.10X**MODULE INTERIOR CELLS**

Shall be formed of 0.125" aluminum and shall be securely welded or mounted to the structural framing. Interior 0.125" formed aluminum perforated partitions, with a 2.5" solid border, shall be installed to provide divisions in the seating areas of the module. All walls of the isolation area shall be solid. Deadbolts shall be Schlage cylinder, commercial grade, and keyed alike. All Cell exterior doorways shall be "*Sweep out*" design.

CELL #1 – Isolation Area

Interior Dimensions – 21"D x 57"H x 48.5"W

Exterior Door – 32"W x 58.75"H

Location – Streetside, forward

Seating – One bench seat (Section 5.33 related)

Additional Instructions –

1. This cell shall provide isolation for one person and be accessible from the streetside exterior door or through a textured gray polyurea thermoplastic elastomer finished aluminum door with a double sided Schlage deadbolt lock from Cell #2.
2. The bottom of the door shall be hex punched for ventilation. All walls shall be solid aluminum in this area.
3. A 25.125"W locking 0.125" formed aluminum door shall be installed between this cell and Cell #2.
4. An interior security door with a deadbolt lock shall be installed on the streetside exterior door (not shown in drawings, Section 2.09 related)
5. A Safety Vision infrared camera shall be installed in a recessed painted aluminum pocket in the ceiling above the streetside access door in this cell (Section 6.46 related).

CELL #2**Interior Dimensions** – 62.25"D x 57"H x 70.125"W**Exterior Door** – 32"W x 58.75"H**Location** – Curbside, forward**Seating** – Two bench seats, facing each other**Additional Instructions** –

1. Benches shall be full depth with seating for three persons each (Section 5.33 related).
2. A door to the isolation area shall be located at the streetside end of the cell (Cell #1 related).
3. An interior security door with a deadbolt lock shall be installed on the curbside exterior door (not shown in drawings, Section 2.09 related)
4. A hinge-up emergency egress door shall be installed between Cell #2 and the rear Cell (#3). Emergency egress door shall have a double sided Schlage deadbolt lock, offset to the curbside for possible future use of divider wall in Cell #3.
5. HVAC unit shall be housed under the aft bench (Section 5.17 related). Bench face shall have a precision punched aluminum panel a minimum of 4" off the floor to circulate air.
6. A Safety Vision infrared camera shall be installed in a recessed painted aluminum pocket in the ceiling (Section 6.46 related).

CELL #3**Interior Dimensions** – 61.5"D x 57"H x 89"W**Exterior Doors** – 49.75"W x 54.5"H**Location** – Curbside/Streetside, rear**Seating** – Two bench seats, facing each other**Additional Instructions** –

1. Benches shall be full depth with seating for three persons each and accessible from the rear doors (Section 5.33 related).
2. Backer plates shall be added in the floor and the aft wall, streetside for future installation of a Q'Straint wheel chair and wheel chair occupant restraint system (Section 5.14 related).
3. Back wall shall have two precision-punched panels set a minimum of 4" off the floor for conditioned air supply.
4. A removable wall, painted to match the cell interior, shall be installed down the centerline of cell, aligned with the rear doors so that each area can be accessed independently (not shown in drawings).
5. Dual interior security doors, each with a deadbolt lock shall be installed inside the exterior doors (not shown in drawings, Section 2.09 related). Doors shall be hinged on the outboard edges.
6. An emergency egress door to Cell #2 area shall be located on the forward wall of the cell (Cell #2 related).
7. Two Safety Vision infrared cameras shall be installed, each in a recessed painted aluminum pocket in the ceiling – one streetside and one curbside (different than as shown in drawings, Section 6.46 related).

2.11P**SIDE DOORSTEPS**

Two recessed curbside doorsteps shall be provided, one each streetside and curbside which are 10.5" deep x 15" wide. Aluminum diamond plate kick panel shall be installed on the floor, sides and face of the doorsteps.

2.15**ELECTROLYSIS PREVENTION**

All external materials and fasteners shall be selected to prevent electrolysis and corrosion due to dissimilar materials and exposure to the elements. The module shall be painted before any exterior items (hinges, latches, door hold opens, etc.) are installed to provide an isolating film between dissimilar materials. Exterior fasteners used for direct connection to painted aluminum surfaces shall be coated with a corrosion inhibitor.

3 COATINGS AND FINISHES

3.01 MODULE FINISH PREPARATION

The module shall be seam sealed and all imperfections on aluminum surfaces of module shall be sanded smooth. The entire exterior shall be mechanically etched and washed with wax-and-grease-remover to ensure proper primer/sealant adhesion.

A clear, removable, protective film shall be installed on the front of the module to protect from bugs and rock chips.

3.02 MODULE PRIMER

Module shall be sealed with a two-component, low VOC, direct-to-metal epoxy primer/sealant prior to applying the finish coat of acrylic urethane paint.

3.03 PAINT TYPE

Shall be Sherwin Williams acrylic urethane.

3.04 COLOR SCHEME

Base color: to match Oxford White (GLV-100199832)

3.04.01 CHASSIS COLOR

Chassis shall be OEM Oxford White (YZ) (Section 1.01.11 related).

3.06P COMPARTMENT FINISH

All compartments, shelves, and trays shall be sanded, etched, washed, primed, and coated with textured gray polyurea thermoplastic elastomer finish.

3.07P INTERIOR FINISH

All interior cell areas shall be sanded, etched, washed, primed, and coated with textured gray polyurea thermoplastic elastomer finish.

3.09B MODULE FLOORING MATERIAL

An insulated floor shall be installed over the 0.125" aluminum subfloor and shall be comprised of 0.75" thick polyiso insulation between 0.75" x 0.75" x 0.063" square tubing, covered with a 0.125" polished aluminum diamond plate (Section 2.04 related).

3.10 COMPARTMENT LINING

Compartment floors shall be lined with light gray Matéflex floor tile and all shelves with mat.

3.12 SURFACES AND FINISHES

All patient compartment surfaces and finishes shall be impervious to soap, disinfectants, and water, to permit washing and sanitizing.

4.01X**STEP/BUMPER**

The rear bumper shall be a welded construction of 3" x 3" x 0.375" aluminum angle and 1.5" x 0.25" flat bar and shall be covered by 0.125" bright aluminum diamond plate. The center section, below the doors, shall have a hex-punched open flow design to prevent accumulation of water and snow and provide a 10" step. Both outermost ends shall be angled to prevent dragging of corners in high angle of departure areas. Diamond plate shall be formed on front and rear edges for channel-type strength, and a formed 0.090" aluminum closeout shall be welded to the underside of the bumper. The bumper shall be bolted directly to the chassis frame using high strength Grade 5 bolts. Bumper shall be easily removable and replaceable in case of damage.

An aluminum diamond plate hinged step shall be installed to fold up and over the bumper when not in use.

A stainless-steel ring-grip quick-release pin with lanyard shall be installed to secure the fold-over step in the stowed position.

4.02**RUB RAILS**

Bright finished extruded aluminum rub rails of a double channel design shall be installed along the lower streetside and curbside edges of the module. Rub rails shall be 2.5"H x 0.75"W x 0.125"D, with a 0.5"H.

4.03**FENDER RINGS**

Bright polished aluminum fender rings with a rounded outer edge shall be installed on the module, following the full contour of the wheel well opening.

4.04**DRIP RAIL**

Extruded, anodized aluminum drip rails shall be installed the full length of the module front, rear, and sides near the roof, and over each passage door. Drip rails shall be installed with bonding tape and mechanical fasteners on each end that shall withstand exposure to the elements. They shall be finished with 45-degree angled ends to avoid hooking materials which brush against the vehicle causing damage.

4.05**ROCK GUARDS**

Bright aluminum diamond plate rock guards shall cover the front module corners, 24" up from bottom of module, 2.5" wrapped around the sides of module, and meet the cab at the front of the module.

4.06A**REAR KICKPANEL**

A bright aluminum diamond plate rear kick panel shall extend from the bottom edge of the module up to the bottom of the rear doors, full-width formed and wrapped 2.5" around the sides of the module. Panel shall be precision punched for ventilation.

4.07**FUEL FILL**

A polished cast aluminum fill well shall be installed on the streetside of the module and be properly vented. Fill and vent hoses shall be installed and protected in accordance with the chassis bodybuilder recommendations.

The OEM DEF tank fill is located between the cab and module, streetside (not shown in drawings).

4.08A**EXTERIOR WINDOWS**

All module windows shall have black anodized aluminum frames, rubber gaskets, be dark-tinted and shall be attached with screws for ease of replacement. All module windows shall be dark tinted with fixed glass. The streetside passage door window, curbside passage door window, and the rear door windows shall be 18.75" x 11.25" (different than as shown in drawings).

Windows shall each have a 14-ga. hex-punched stainless-steel cover riveted in place over the inside surface.

4.16**REAR LICENSE PLATE**

A rear license plate holder and an incandescent light shall be installed on the rear of the module, streetside, above the kick panel.

4.17B**STEP, MANUAL**

Two Zico VS-24-9 single electric steps, each with a 7.625" drop, shall be installed under the streetside and the curbside passage doors, wired to extend and retract with each respective door.

4.19**SPARE TIRE MOUNT**

An aluminum mounting plate for the OEM spare tire and wheel shall be installed in Compartment #2. The OEM spare tire and wheel shall be mounted on the bracket.

4.34**AUTOMOTIVE UNDERCOATING SEAL**

The chassis and module underbodies (excluding the area above the fuel tank, driveline, and exhaust lines, per manufacturer's specifications) shall be sprayed with undercoating for reduced corrosion and added sound deadening.

5 MODULE INTERIOR

5.01P UPPER WALL COVERING

All interior walls shall be constructed of 0.125" aluminum which is sanded, etched, washed, primed, and coated with textured gray polyurea thermoplastic elastomer.

5.02 HEADLINER

The headliner shall be constructed of 0.125" aluminum which is sanded, etched, washed, primed, and coated with textured gray polyurea thermoplastic elastomer.

5.14X WHEELCHAIR SECUREMENT

Backer plates shall be added in the floor and aft streetside wall of Cell #3 for future installation of a Q'Straint wheel chair and wheel chair occupant restraint system.

5.16P INSULATION

The module side, ends, roof, doors, and floor shall be insulated to enhance the interior environment and to restrict heat, cold, and external noise from entering the module. The insulation shall be a non-settling foam plank material of 1.5", or 0.75" thickness depending upon location and available space.

Roof, doors, wall, and floor insulation shall be polyisocyanurate.

A 1" wide, 45-mil, closed cell polyethylene foam tape shall be used as a thermal break on the inside surface of the roof and wall tubes.

5.17A MODULE CLIMATE CONTROL SYSTEM

The module HVAC system shall incorporate a combination heating/air conditioning unit with 60,000 BTU/hr. heating and 53,000 BTU/hr. cooling capacity. The unit shall have a 1,200 CFM fan and have controls independent of the cab system. The module system shall be controllable from the cab via a digital thermostat located on the driver's console (Section 6.09 related). A return air path with open area equal to at least twice the blower outlet area shall be incorporated into the evaporator closeout.

An auxiliary dual fan condenser with 83,000 BTU/hr. capacity shall be skirt-mounted.

A 12VDC booster pump shall be installed to optimize the heating capacity in the module.

5.19P AIR RETURN

Perforated air return grilles with integral mesh filters shall be designed into the evaporator closeout. The grilles shall be installed with security screws to resist tampering while providing access for periodic filter cleaning.

5.33C MODULE INTERIOR SEATING

Bench seats shall be formed from 0.125" aluminum. A 0.375" backer plate shall be installed behind the bench back for future use of bolting down tethers or two-point seatbelts.

5.60 EMERGENCY EGRESS

A hinge-up emergency egress door shall be installed between Cell #2 and the rear Cell (#3). Emergency egress door shall have a double sided Schlage deadbolt lock, offset to the curbside for possible future use of divider wall in Cell #3 (Section 2.10 related).

ELECTRICAL

All added body and chassis electrical equipment shall be served by circuits separate and distinct from the vehicle chassis circuits. All vehicle wiring shall be copper and conform to all SAE J1128 requirements. The wiring shall be colored, numbered, or function coded every 3" for permanent identification and correspond with the vehicle schematics. Solderless, insulated connectors shall be used. Slotted Panduit-style wiring duct shall be used in electrical component module to ensure air circulation throughout power component wiring. The wiring shall be routed in conduit or looms and wiring shall be secured to the underbody or frame with insulated metal cable straps. All power distribution cabling shall be covered with a protective split loom. Where wiring passes over the exhaust, a heat shield shall be installed. The electrical component module shall be equipped with positive locking plugs to provide easy disconnect for remount or repair of body. All wiring devices, switches, outlets, etc., except circuit breakers, shall be rated to carry 125% of the maximum ampere load for which the circuit is protected.

The vehicle electrical system shall be tested and certified to AMD 005 requirements.

6.01**OVERLOAD PROTECTION DEVICES**

Body electrical wiring shall utilize overload protective devices of the automotive-type circuit breaker. In addition, one single pole, 20-amp circuit breaker shall be provided for future use. The circuit breakers, relays, and other electrical items shall be located in included as part of the enclosed electrical component module located behind a removable ABS cover at the back of Compartment #1.

6.04B**IGNITION CONTROL**

Chassis electrical circuits shall be controlled by the ignition switch as provided by the OEM chassis manufacture. The auxiliary chassis-related functions shall be powered by one 50/30-amp relay activated by the chassis ignition.

6.05C**MODULE POWER**

Module power shall be controlled by the chassis ignition which activates a CDR-400 solenoid. An ignition interlock shall disconnect module power 15 minutes after the vehicle's ignition is turned off. The interlock shall also allow module power to be reactivated independently for 15 minutes by cycling the ignition switch.

6.07A**BACK-UP ALARM**

An SAE J994-compliant self-adjusting back-up alarm shall be installed, without a disable switch.

6.08**SERVICE LOOP**

A 6" service loop of wire or harness shall be provided at all electrical components, terminals, and connection points.

6.09X

DRIVER'S CONSOLE

A **custom** driver's console made of black-powder-coated formed aluminum shall be installed between the seats. It shall have a **custom** switch panel with the following layout, custom cup holders, and a locked storage area at aft end of console, with a hinged lid and Schlage deadbolt lock (keyed differently from module deadbolt locks).

Cupholders and gun storage compartment shall be at or below the height of the seat base to provide clearance for officer gun belt(s).

Two Havis Shield adjustable arm rests, model #C-ARM-102, shall be installed on console alongside the cup holder area.

A blank below the siren shall be provided for a **customer-supplied-and-installed** Motorola XTL 2500 radio head (Section 6.18 related); a prewire shall be run to the driver's console for future installation of **customer-supplied-and-installed** Motorola XTL 2500 radio equipment (Section 6.18 related).

A touchscreen monitor and bracket shall be installed on the front of the console, facing passenger seat (Section 6.46 related).

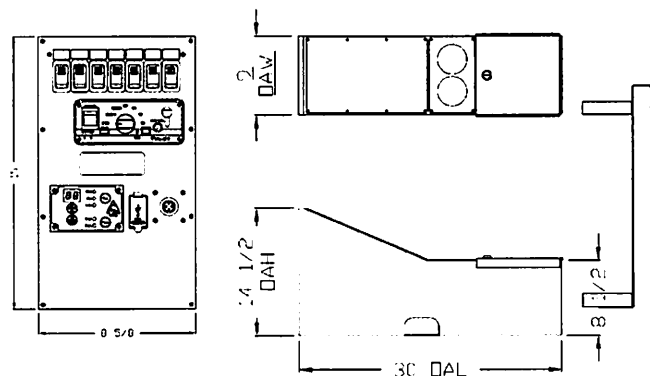
The custom switch layout shall be as follows:

1.	2.	3.	4.	5.	6.	7.
Module Disc.	Flasher	Dome	Center Dome	Left Scene	Rear Scene	Right Scene

Siren

Blank (for customer-supplied-and-installed Motorola XTL 2500 radio head)

Digital Thermostat	USB	Jensen PA
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6.10 SWITCHES

Switches installed in the driver's console shall be rocker-type and permanently marked by function.

6.12B DOOR AJAR WARNING LIGHT

A Whelen #3SR00FRR Red Lens Red LED flasher and buzzer shall be installed overhead in the cab to warn the driver of an open exterior cell door, or compartment door when the when the vehicle is out of park (Section 1.02.21 related).

6.16P MODULE INTERIOR LIGHTING

Shall be designed to keep vehicle height to a minimum without interfering with the structural integrity of the roof. Module interior lighting shall consist of four Intertek VER2 #ZY-757W-LED-G2 dual intensity LED recessed lights spaced evenly in the roof, installed with tamper-proof rings with rivets: one in Cell #1, one in Cell #2, and two in Cell #3. The lights shall be activated by an on/off switch labeled "DOME" on the driver's console (Section 6.09 related), or by the exterior doors.

6.17A BASIC EXTERIOR LIGHTING

Basic lighting shall include headlights, parking lights, directional signal lights, tail and stop lights, license plate light, back-up lights, hazard lights, identification lights, clearance lights, and side marker lights as required by FMVSS 108.

Module identification lights, clearance lights, and side marker lights, unless included on a lightbar, shall be Truck-Lite LED Model 36.

Rear and side reflex reflectors shall be installed in accordance with FMVSS 108 requirements.

Rear stop/tail, turn and back-up lights shall be Truck-Lite Model 45 series LED lights, stacked vertically on the rear of the module, outboard above the rear kick panel, pattern from top to bottom: red stop/tail light, amber turn light, and clear back-up light.

6.18A COMMUNICATIONS EQUIPMENT

The customer shall be responsible for powering up and tuning of any radio equipment.

Item #1

Description: Prewire, including 10 ga. power and 10 ga. ground and ignition sense, for future installation of *customer-supplied-and-installed* Motorola XTL 2500 radio equipment.

Location: From electrical panel to driver's console.

Additional Instructions: Prewiring to be capped and labeled at both locations. Wiring shall be installed at the power component module behind the Panduit cover.

6.19 ANTENNA MOUNTS AND CABLES

Two NMO universal antenna mounts with KHFUD/RG58UD cables, Larsen HyPermaster universal connectors and mini-UHF adapters shall be installed on the module roof. Antenna base access shall be through the dome light openings, and the cables shall terminate behind the driver's seat (Section 1.02.43 related).

6.20A BLOCK HEATER

The OEM block heater connection shall not be modified.

6.22 BATTERY GROUNDS

In addition to OEM chassis grounds, the following ground circuits shall be added to reduce RF interference:

- A minimum 4 ga. ground cable from the power component panel to the chassis frame.
- Two braided ground straps from the module body to the chassis frame.

6.24 BATTERY MODIFICATIONS

Chassis batteries shall be utilized in existing locations.

6.25 12VDC POWER SUPPLY

One USB dual charging port shall be installed:

- One Blue Sea switch-insert-style in the driver's console (Section 6.09 related).

USB charge ports shall be powered from a 12VDC bus that is energized when charging voltage is present on the vehicle batteries.

A 12VDC 10-ga. prewire shall be installed by BNW in the driver's console for future *customer-supplied-and-installed* radio equipment (Section 6.18 related).

6.27 EXTERIOR DOOR SWITCHES

Shall be 1/2" mechanical door switches.

6.30 **EMERGENCY WARNING SYSTEMS**

6.30.02X **REAR FLASHERS**

Two Whelen #WIONSMCA Clear Lens Amber LED flashers with chrome housings shall be installed on the rear of the module, one each on the curbside and streetside of the module in the upper corners. Lights shall be controlled by the "FLASHER" switch on the driver's console (Section 6.09 related).

6.30.04X **SCENELIGHTS**

Three Whelen #PELCC perimeter enhancement lights with chrome flanges shall be installed:

- One centered on the streetside of the module
- One above the rear doors
- One centered on the curbside of the module

The scenelights shall be controlled by the "FLOOD LIGHTS" switch on the driver's console (Section 6.09 related), or when any passage door is opened.

6.30.08 **GRILLE LIGHTS**

Two Whelen #WIONSMCA Clear Lens Amber LED flashers with chrome housings shall be installed on the OEM grille. Lights shall be controlled by the "FLASHER" switch on the driver's console (Section 6.09 related).

6.30.09X **SIREN**

A prewire shall be terminate in the driver's console for future installation of a siren. Prewire shall also include hand's free function.

6.30.10X **SPEAKERS**

A prewire shall be terminate in the OEM grille area for future installation of a siren speaker.

6.38P **MODULE SPEAKERS**

Two speakers shall be installed in the upper closeouts in the module with perforated covers, and be connected for use with the cab radio via a Jensen PA600 amplifier head on the driver's console (Section 6.09 related). The Jensen head shall allow voice commands via the microphone, or signal input from cab radio.

Speaker Locations:

- One speaker in Cell #2
- One speaker in Cell #3

6.46P **AUDIO/VIDEO/RECORDING EQUIPMENT**

Item #1

Description: A Rostra back-up/blind spot camera system, including two #250-8160-BSC mirror-mounted blind spot cameras, and a rear-view mirror/monitor with a 4.3" screen shall be installed.

Location: Back-up camera above the rear doors; two blind-spot cameras below OEM side-view mirrors and rearview mirror/monitor centered on chassis windshield, upper (Section 1.02.43 related).

Additional Instructions: Camera shall automatically display on monitor when the vehicle is placed in reverse, and the respective blind spot camera shall automatically display on the monitor when the left or right turn signal is activated. A programming remote shall be shipped loose (Section 8.01 related).

Item #2

Description: A Safety Vision audio/video security system shall be installed, including the following components:

- Four #INT-IP 2.8mm infrared recessed cameras
- One #4116-NVR-UPS uninterruptible power supply
- One 15" monitor with built-in PC with mount
- Two terabyte recording drive

Locations:

- One camera each in Cells #1-2
- Two cameras in Cell #3 (one streetside and one curbside)
- Recording drive and UPS will be located in Compartment #1 (location to be confirmed at preconstruction meeting)
- Monitor with rotating mount on the driver's side of the console (Section 6.09 related), facing the passenger

Additional Instructions: Details to be discussed at preconstruction meeting.

7 SUPPORTING DOCUMENTATION

7.01 OWNERS MANUAL

Shall be provided with vehicle and consists of the following items:

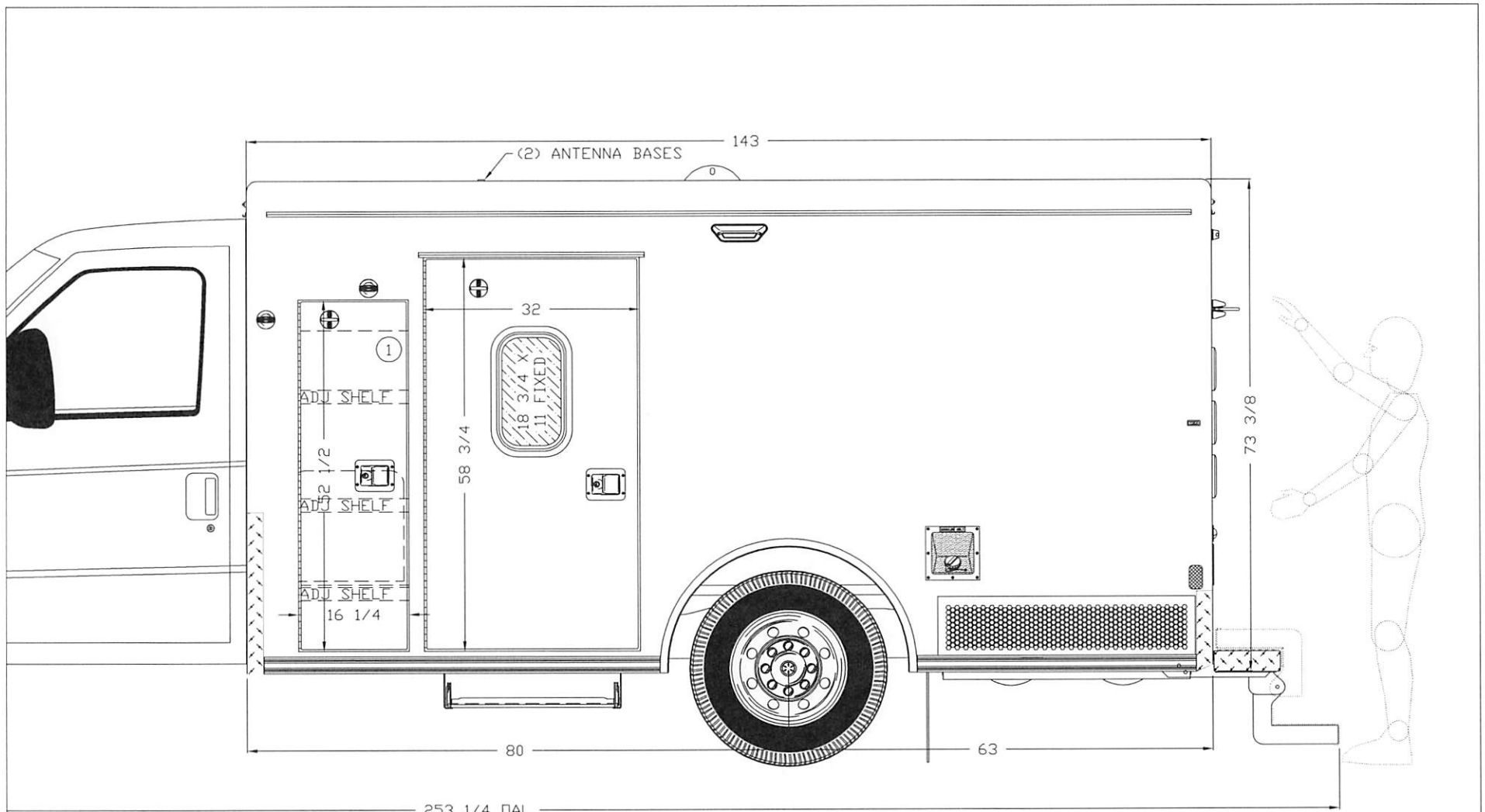
1. Chassis owner information packet.
2. Second OEM key
3. Lifetime module warranty.
4. Factory warranty on Chassis.
5. 7 Year/75,000 miles limited electrical warranty.
6. 2 Year/30,000-mile Conversion Warranty.
7. 5 Year Paint Warranty.
8. Module remount engineering checklist.
9. Climate control information and warranty.
10. Main schematic.
11. Electrical equipment amperage ratings.
12. Wire coding list.
13. Schematics for standard system: (As Built)
 - Driver switch console
 - Climate control system
 - Module harness routing
 - Interior and exterior lights
14. Operations manual
15. Schematics for individual options.

8 MISCELLANEOUS MEDICAL/RESCUE EQUIPMENT

8.01 LOOSE EQUIPMENT

The following equipment shall be shipped loose with the vehicle:

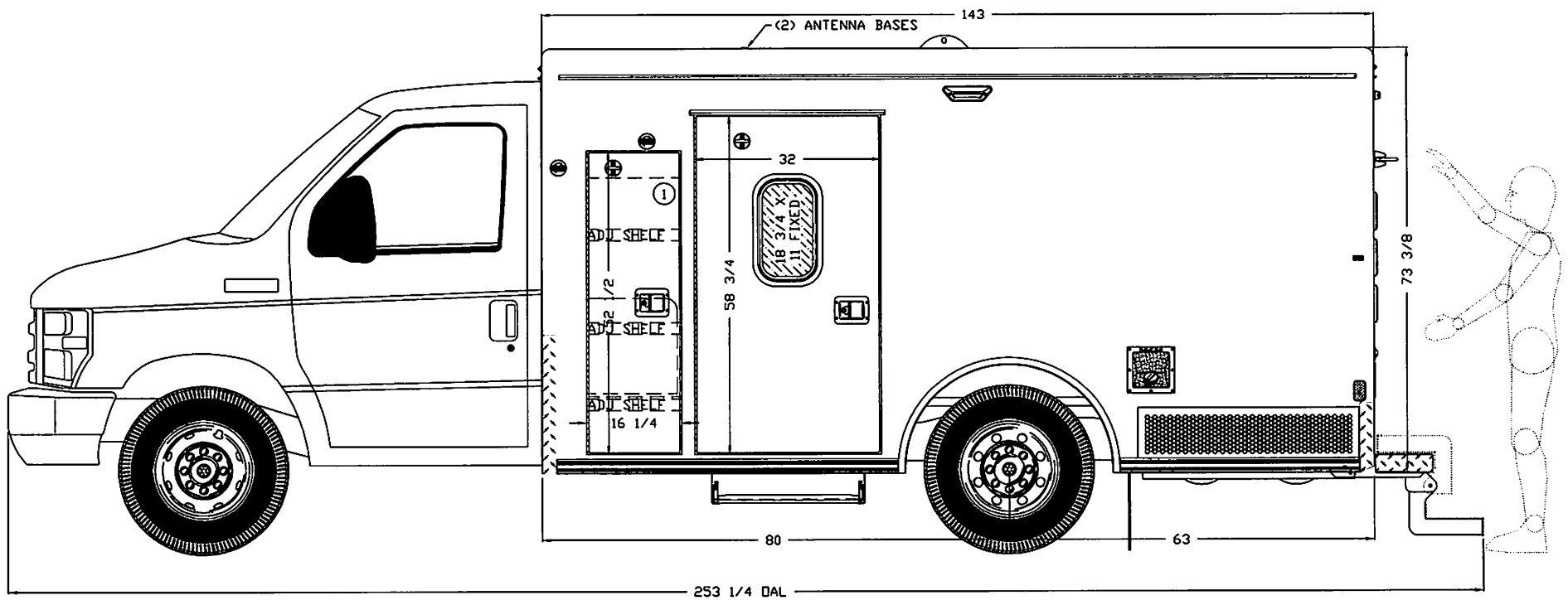
1. Touch up paint, one bottle to match Oxford White (GLV-100199832)
2. Two spare cell keys, J236
3. Rostra programming remote



Braun Northwest, Inc.

Department	SALES		Rev
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Client	XXXX_E350PT		
Date	05/07/2020	Drawing By	T.A.S.

TITLE: EXTERIOR S/S VIEW

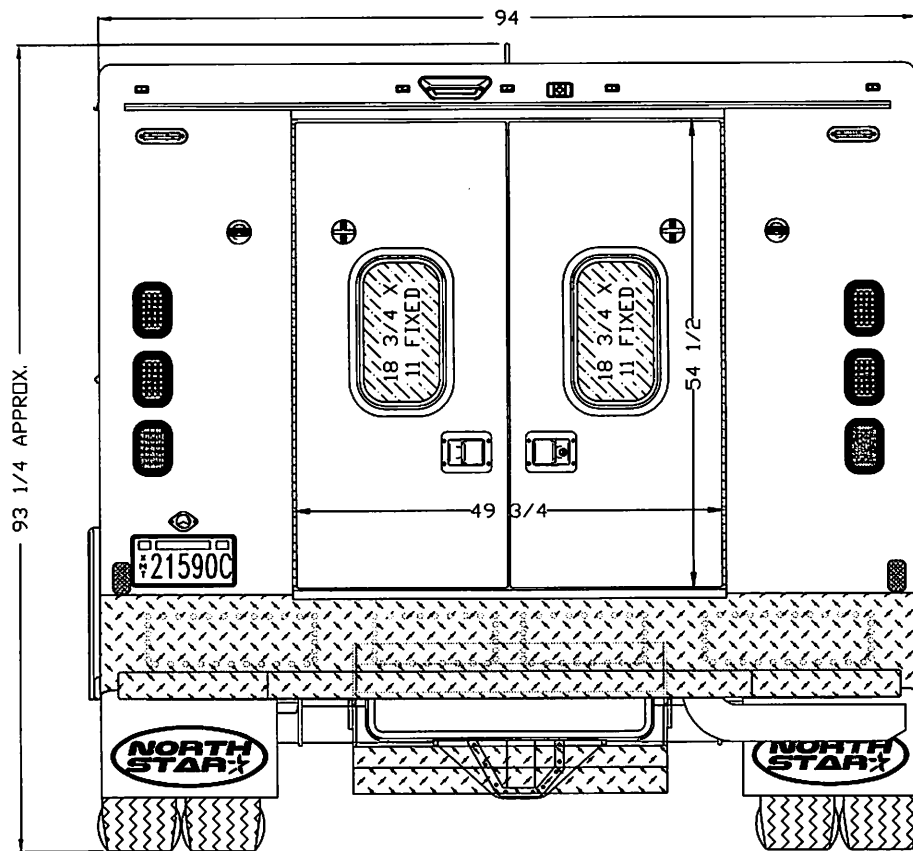


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Date	05/07/2020	Drawing By	T.A.S.

TITLE:

EXTERIOR S/S VIEW

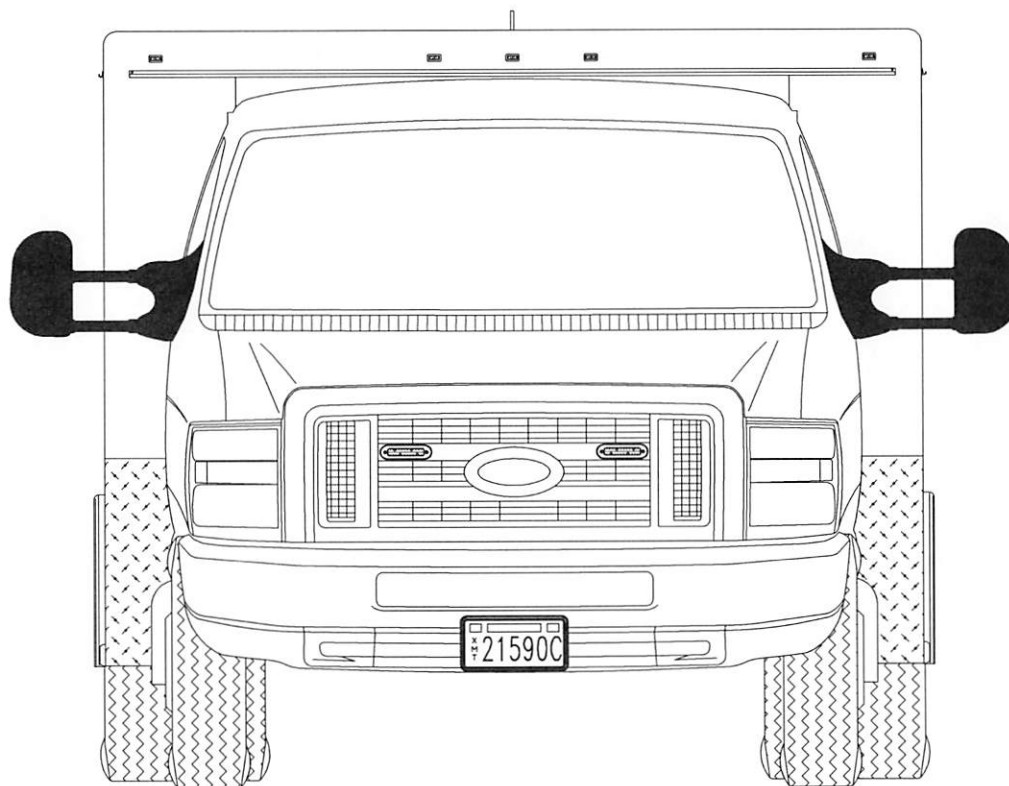


Braun Northwest, Inc.

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Client	XXXX_E350PT			
Date	05/07/2020	Drawing By	T.A.S.	

TITLE:

EXTERIOR REAR VIEW

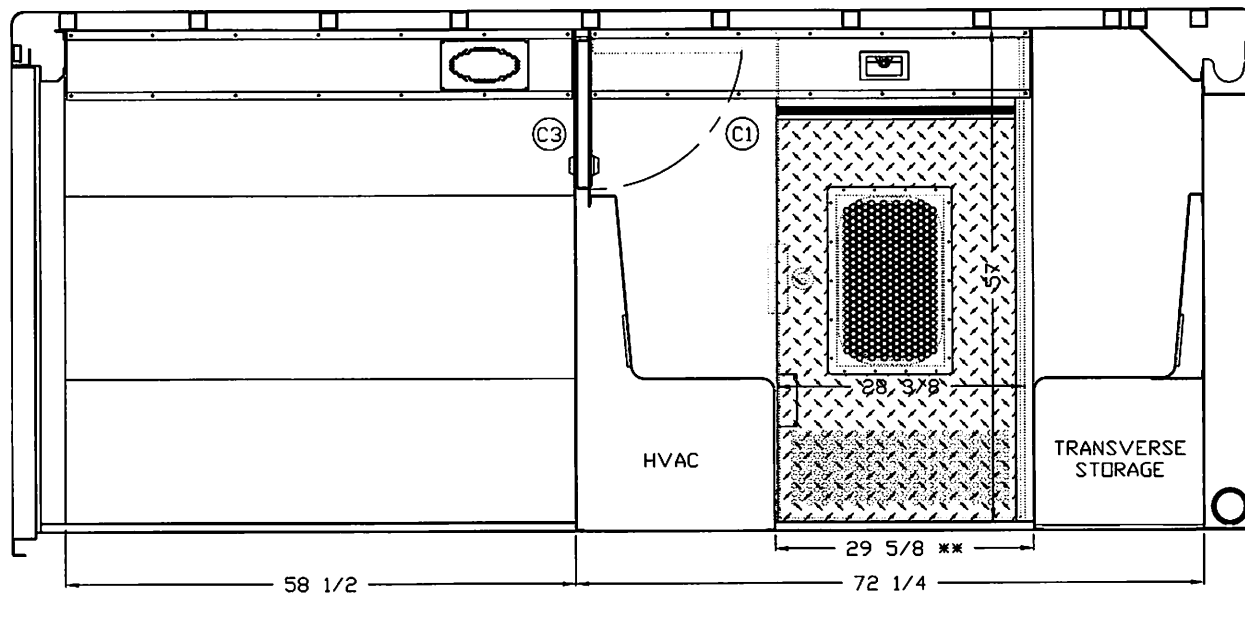


Braun Northwest, Inc.

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Client	XXXX_E350PT			
Date	05/07/2020	Drawing By	T.A.S.	

TITLE:

EXTERIOR FRONT VIEW

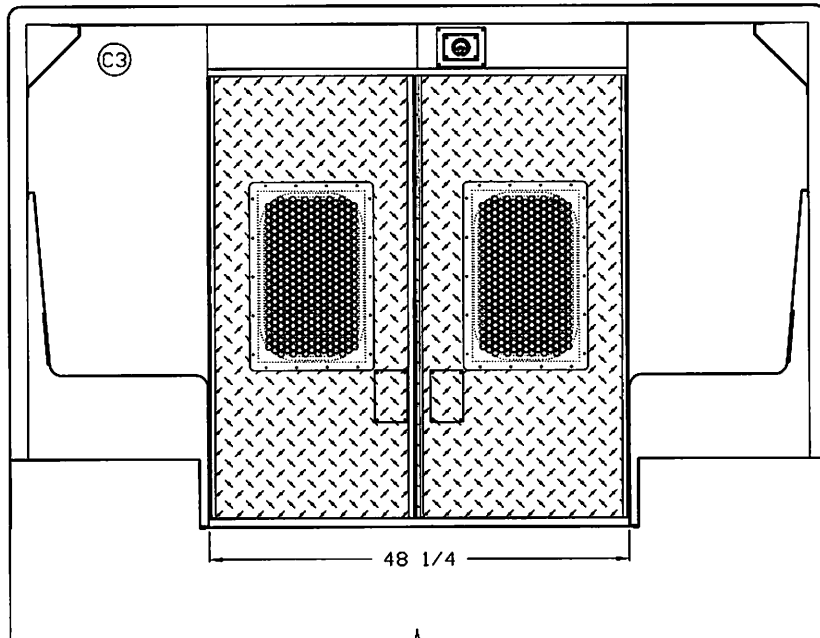


Braun Northwest, Inc.

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Date	05/07/2020	Drawing By	T.A.S.	

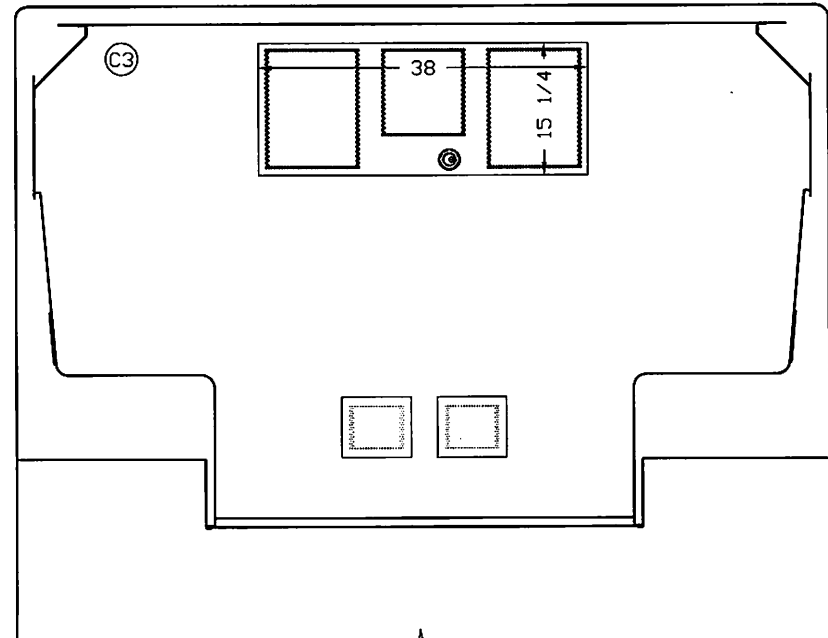
TITLE:

INTERIOR S/S VIEW



INT VIEW

REAR VIEW
CELL 3



INT VIEW

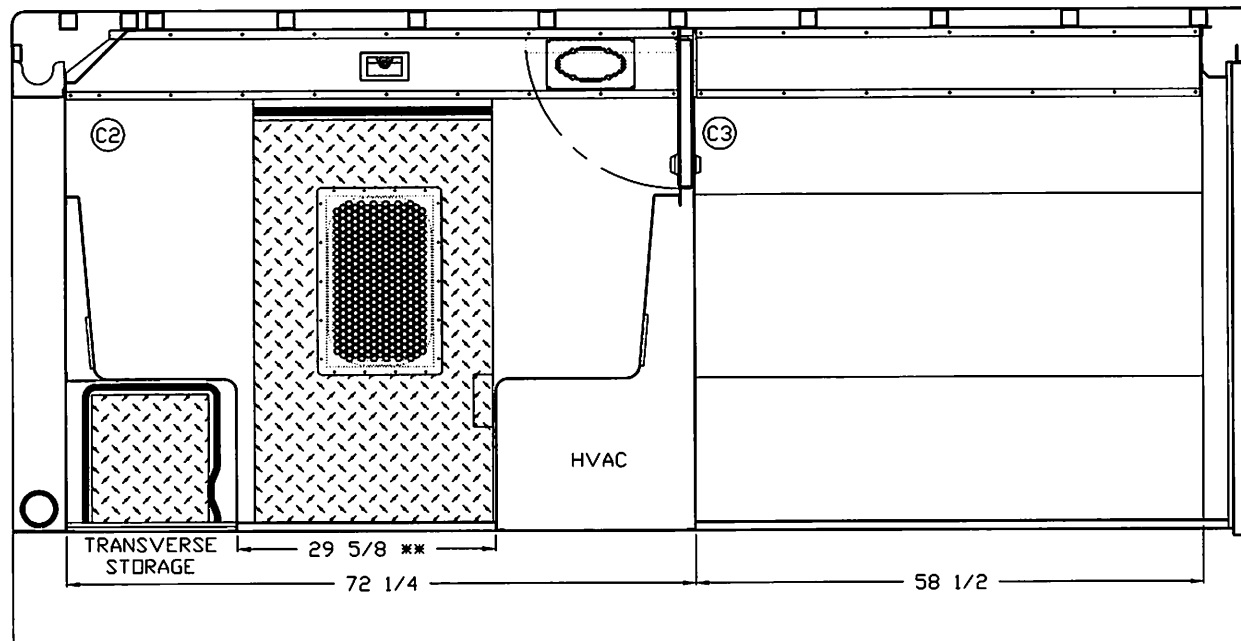
FRONT VIEW
CELL 3

Braun Northwest, Inc.

Department	SALES			Rev
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Client	XXXX_E350PT			
Date	05/07/2020	Drawing By	T.A.S.	

TITLE:

INTERIOR FRONT & REAR VIEWS

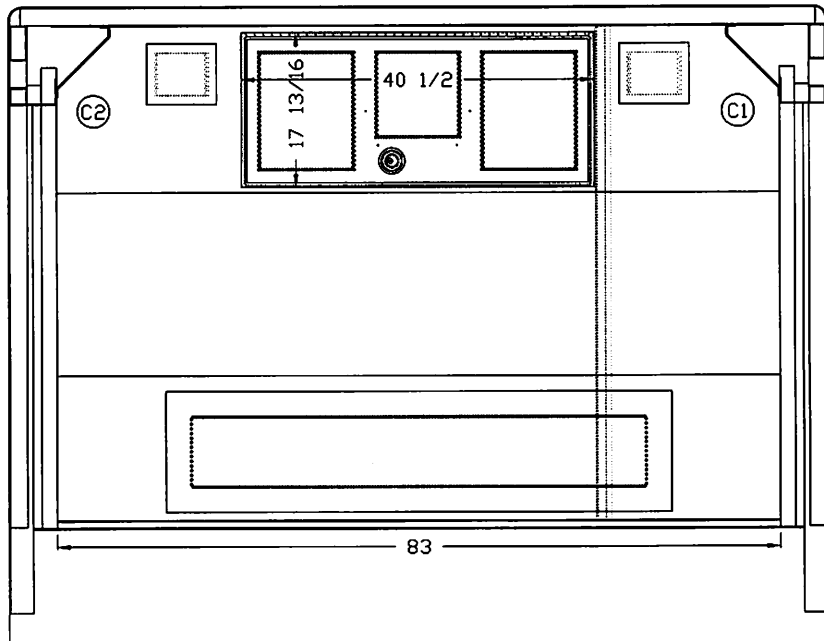


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Date	05/07/2020	Drawing By	T.A.S.	

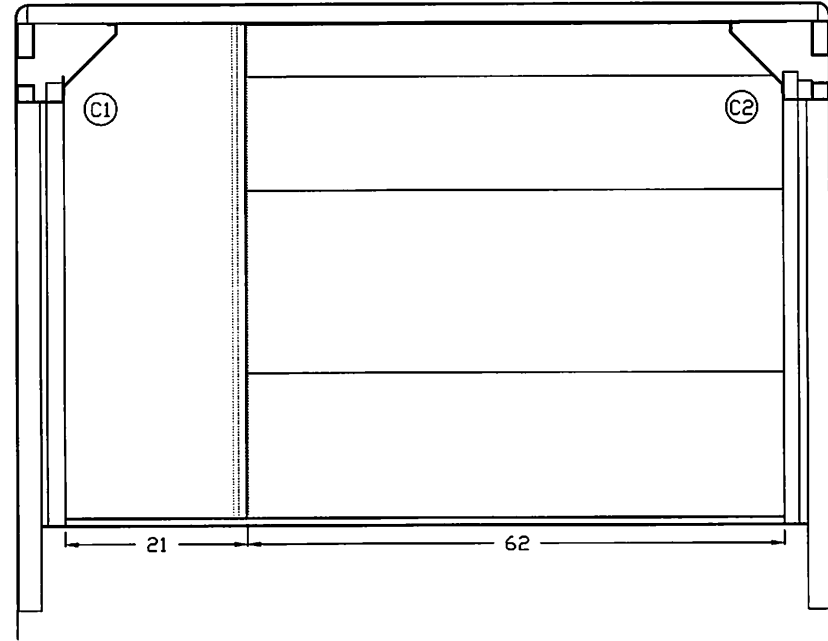
TITLE:

INTERIOR S/S VIEW



INT VIEW

REAR VIEW
CELLS 1 & 2



INT VIEW

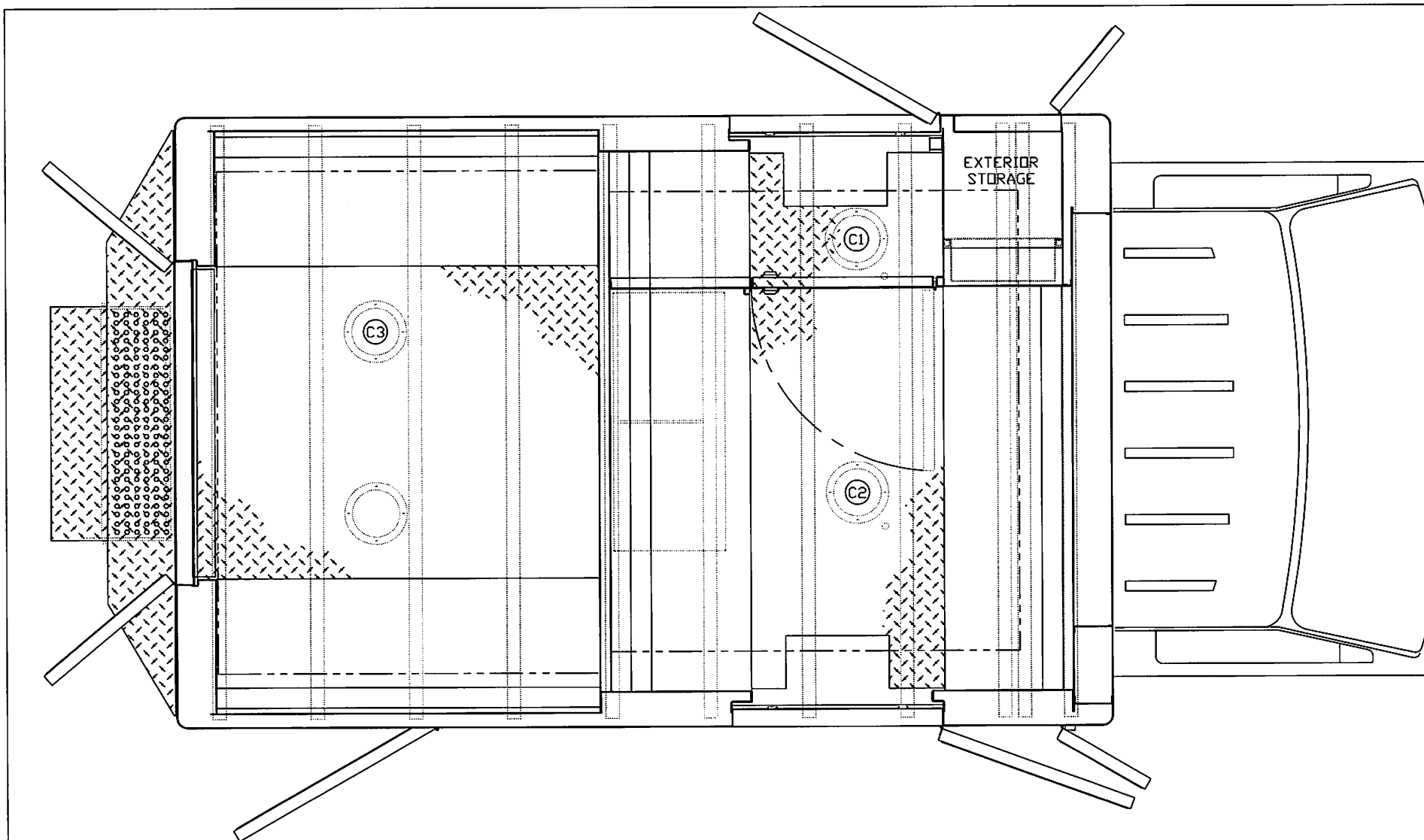
FRONT VIEW
CELLS 1 & 2

Braun Northwest, Inc.

Department	SALES			Rev
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Client	XXXX_E350PT			
Date	05/07/2020	Drawing By	T.A.S.	

TITLE:

INTERIOR CELL 1 & 2 VIEWS

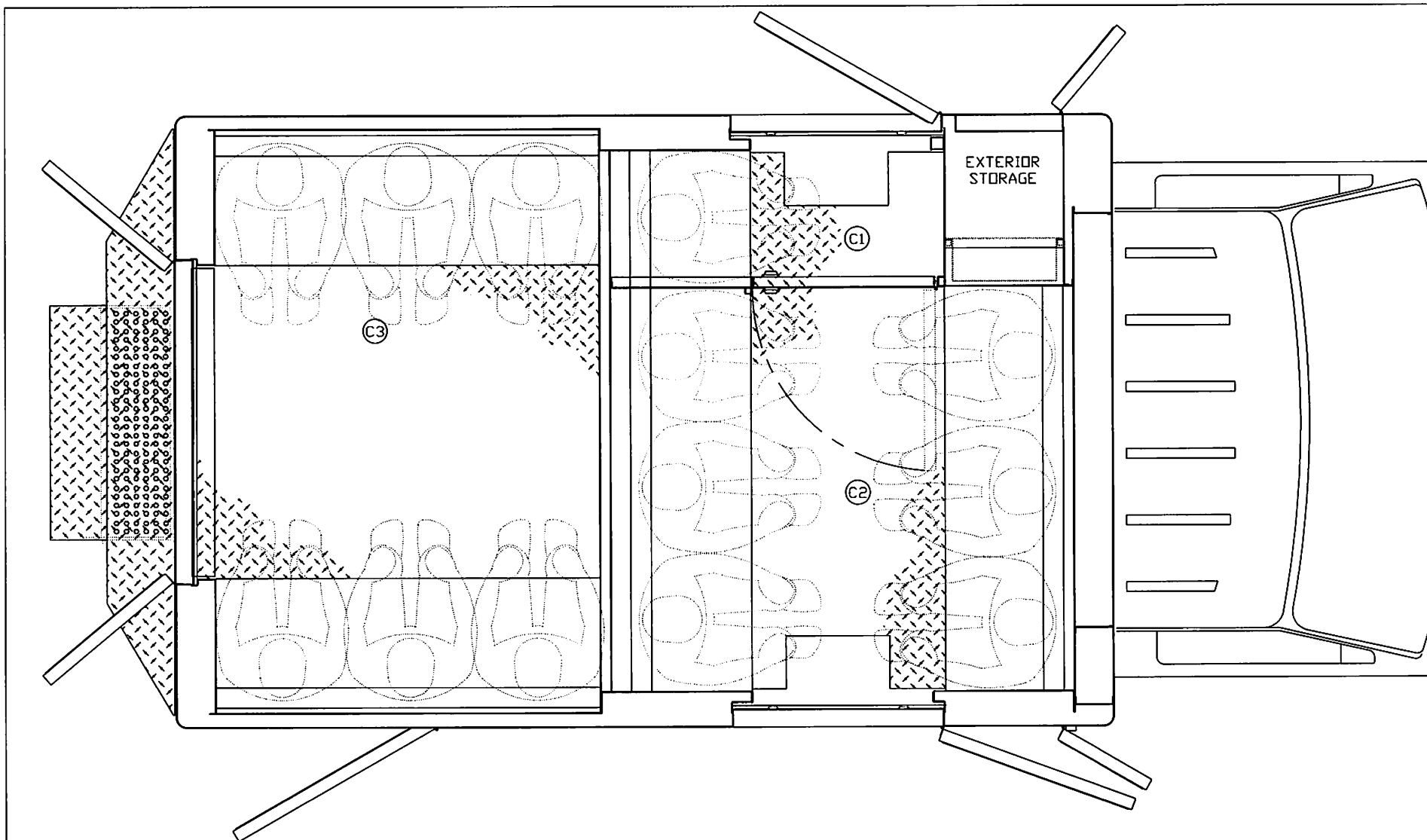


Braun Northwest, Inc.

Department	SALES		Rev
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Client	XXXX_E350PT		
Date	05/07/2020	Drawing By	T.A.S.

TITLE:

PLAN VIEW

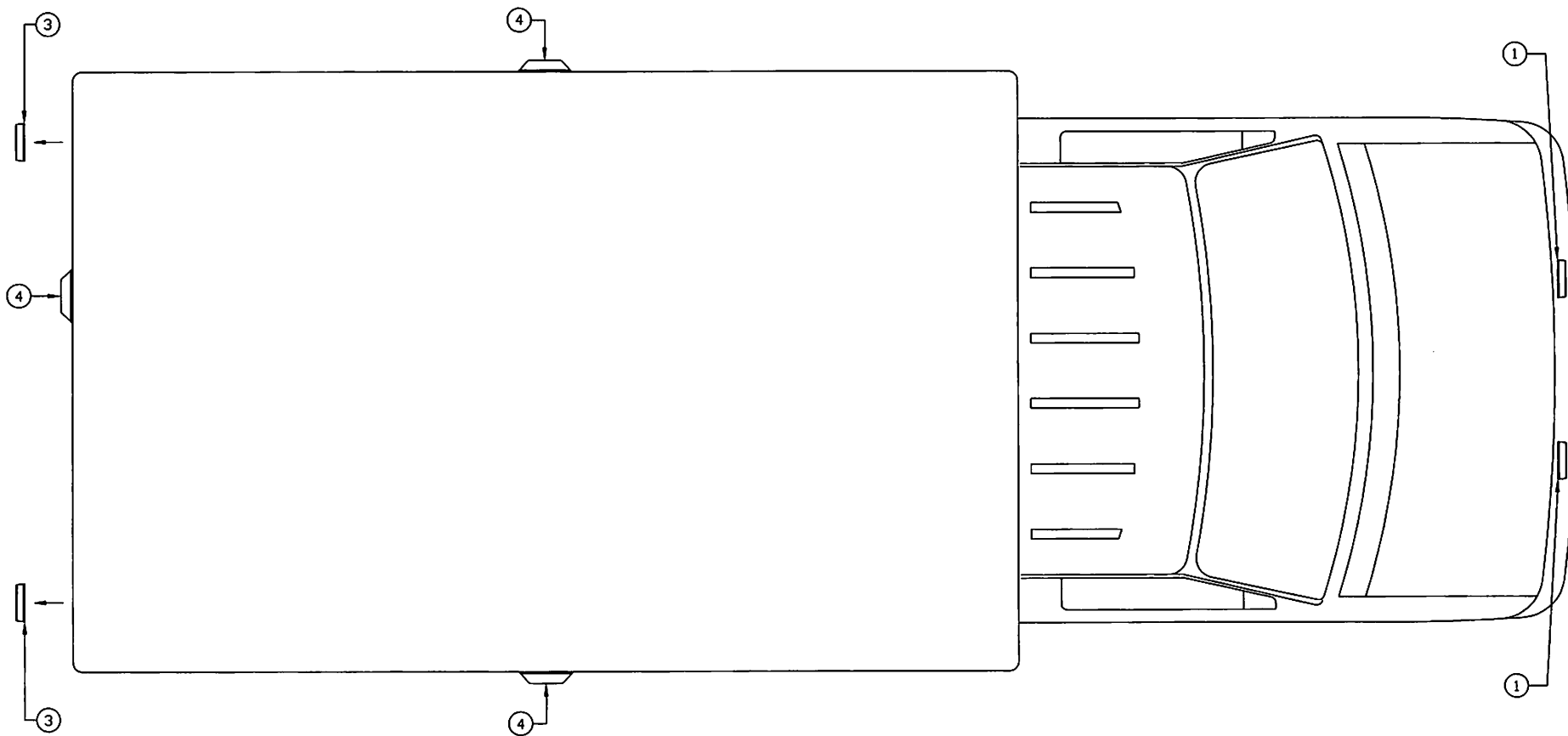


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Department	SALES		Rev
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Client	XXXX_E350PT		
Date	05/07/2020	Drawing By	T.A.S.

TITLE:

PLAN VIEW



Braun Northwest, Inc.			
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Client		XXXX_E350PT	
Date		05/07/2020	Drawing By T.A.S.
TAG	DESCRIPTION	QTY	
2	WHELEN #PELCC LED SCENE LIGHT	3	
1	WHELEN #W10NSMCA CLR LNS AMB LED	4	

TITLE:

EMERGENCY LIGHT LAYOUT