



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

**HGAC PROPOSAL**

September 7<sup>th</sup>, 2022

Huntington Beach Fire Department  
Attn: Eddie Corella  
2000 Main Street 5<sup>th</sup> Floor  
Huntington Beach, CA 92648  
[ecorella@surfcity-hb.org](mailto:ecorella@surfcity-hb.org)

RE: Two (2) 2023 North Star 167-1 module ambulances

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

Two (2) 2023 North Star 167-1 ambulances on 2023 Chevrolet 4500 4x2 ambulance prep diesel chassis based upon NS #3332-1 "As-Built" specifications dated 12/14/21 and drawings dated 09/23/21 with the following modifications:

- Utilize 2023 Chevrolet 4500 4x2 diesel chassis

Base Price HGAC CA05 .....	\$186,451.00
Published/Unpublished options taken .....	<u>\$ 93,653.00</u>
Base Price for North Star 167-1 ambulance.....	\$280,104.00
Five Percent Contingency Allowance.....	\$ 13,700.00
Multi-Vehicle discount .....	<u>&lt;\$ 1,500.00&gt;</u>
Sub-total for one (1) unit .....	<u>\$292,304.00</u>
Sub-total for two (2) units.....	\$584,608.00
Sales Tax based upon 7.75%.....	\$ 45,307.12
HGAC Fee.....	<u>\$ 1,000.00</u>
Total F.O.B. Huntington Beach, CA.....	<u>\$630,915.12*</u>

Sales tax included

F.O.B.:           Huntington Beach, California

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

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



**EMERGENCY VEHICLES**

[www.braunnw.com](http://www.braunnw.com)


*\*Note: The above pricing includes travel for 3 persons for pre-build and final inspection.*

*\*The above pricing is based upon estimated 2023 model year retail chassis pricing and is subject to change when new pricing is released by Chevrolet.*

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

*Braun Northwest, Inc. is a Washington dealer (0991-A) with insurance information available upon request.*

**Respectfully Submitted by:**  
**Braun Northwest, Inc.**

  
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**Tami McCallum, V.P. Sales**

Date: 9/7/2022

**We agree to accept the above proposal:**  
**Huntington Beach FD**

\_\_\_\_\_  
**Signature** **Date**

\_\_\_\_\_  
**Printed Name** **Title**

TM  
cc BG  
Enclosures: Specifications, drawings.

**Braun Northwest, Inc.**  
**DETAILED SPECIFICATIONS**  
**FOR**  
**HUNTINGTON BEACH FIRE DEPARTMENT**  
**HUNTINGTON BEACH, CALIFORNIA**  
**3332-1**

**1 CHASSIS**

**1.01 OEM CHASSIS**

- 2021 Chevrolet Silverado 4500HD Reg Cab, 4 x 2, meeting all the specifications of Section 1.01
  - LT Preferred Equipment Group
  - Emergency Service Package (YF2)
  - 3-year/36,000 mile Basic warranty
  - 5-year/100,000 Drivetrain warranty
  - Dual Rear Wheels
  - Provided by Braun Northwest

**1.01.01 SPECIFIC RATINGS**

- Drive – 4 x 2
- G.V.W.R. – 16,500 lbs.
- Front Axle – 7,000 lbs.
- Rear Axle – 11,000 lbs.
- Wheelbase – 189"
- Cab to Axle – 108"
- Rear Differential – 4.30 ratio, limited slip (092)

**1.01.02X POWERTRAIN**

- Engine
  - Duramax 6.6L Turbo-Diesel V8, B20-Diesel compatible 350 hp @ 2700 rpm, 700 lb.-ft torque @ 1600 rpm.
  - DPF (diesel particulate filter)
- Transmission – Emergency Service Transmission, Automatic close-ratio 6 SPD with double overdrive
- DPF, diesel particulate filter, manual regeneration (FPF)
- Power take off, engine control provisions (PTO)
- Exhaust Brake
- Heater hose, silicone (KT0)
- Heater hose clamps, washer type (KUD)
- Exhaust
  - System complies with Federal Motor Carrier Safety Regulations, Part 393.83
  - Suspended using three hangers, excluding manifold attachment
  - Exhaust system, rear exit (N12)
  - Tailpipe outlet shall not terminate within twelve inches of the vertical axis of the fuel tank filler openings

**1.01.03 STEERING**

- Power
- Manual tilt-wheel
- StabiliTrak, includes hill assist and traction control

**1.01.04X AXLES AND SUSPENSION**

- Heavy-duty shock absorbers front and rear
- OEM front stabilizer bar
- Front Suspension – Multi-leaf, 7,000 lb. (FK6)
- Rear Suspension – Air, 12,000 lb. (G40)
- Air Compressor Accessory Drive (KUT)
- Suspension air control valve (JPZ)

**1.01.05 BRAKING SYSTEM**

- Brakes, hydraulic, heavy duty Bosch/Meritor/Wabco system with 4-channel (ABS)

**1.01.06X TIRES AND WHEELS**

- Seven – OEM 225/70R19.5G highway blackwall Continental tires (XDL/YAM)
- Four – OEM 19.5”, aluminum, 8-holes wheels (PWV)
- Two – OEM 19.5”, steel, 8-holes wheels
- Spare tire/aluminum wheel shipped loose (ZBR/PWZ)
- Tool kit, rim wrench and handle

**1.01.07X ELECTRICAL**

- Alternator – Alternators, dual, 150 amps and 220 amps each
- Batteries, heavy-duty dual 1100 cold-cranking amps
- Body Builder Wiring
- Electrical Provisions, rear of frame, upfitter, body builder wiring
- Back Up Alarm

**1.01.08 INSTRUMENT PANEL AND CONTROLS**

- Gauges
  - Speedometer
  - Fuel Level
  - Engine Temperature
  - Tachometer
  - Voltage
  - Oil Pressure
- Cruise Control
- Driver Information Center, 4.2-inch diagonal color display, includes driver personalization, warning messages and vehicle information
- Audio system, Chevrolet Infotainment System with 8” diagonal color touch-screen AM/FM stereo with seek-and-scan and digital clock, includes Bluetooth streaming audio for music and select phones; USB ports; auxiliary jack; voice-activated technology for radio and phone; and Shop with the ability to browse, select and install apps to your vehicle. Apps include Pandora, iHeartRadio, The Weather Channel and more.

**1.01.09X CAB EXTERIOR**

- Trim Level – LT
- Bumper – Front, Chrome (V46)
- Grille – Chrome (V22)
- Front fender extension, painted body color (FNP)
- License Plate Kit – Front (VK3)
- Horn – dual note (U05)
- Windshield Wipers – Wash and Variable Intermittent Feature
- Mirrors
  - Two black, manual telescoping trailer tow
  - Power, heated upper glass
- Lights
  - Halogen, projector beam Headlights
  - Clearance/Marker Lights
  - Daytime Running Lamps
  - Fog lamps, front, halogen (T3U)
- Fuel Tank – 40 Gallon mounted between frame side rails and behind rear axle
- DEF tank – 6.75 gallons
- Camera – Rear Vision Camera (UVC)

**1.01.10X CAB INTERIOR**

- Trim Level - LT
- Seats – OEM, cloth 40/20/40 split bench
  - Manually adjustable driver lumbar, Power Driver Seat – 10-way power
- Seat Belts – Orange, 3-point, lap and shoulder belt type (379)
- Floor- Graphite-colored rubberized vinyl
- Climate Control
  - Air Conditioner, Heater & Defroster
- Air bags
- Other
  - Interior hood release
  - Power Door Locks and Power Windows
  - Remote Keyless Entry, with 2 fobs
  - USB ports

**1.01.11 COATINGS**

- Exterior – Red Hot (G7C)
- Interior – Jet Black

## **1.02 CHASSIS MODIFICATIONS**

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

### **1.02.02X EXTERIOR MIRRORS**

Auxiliary mirrors shall be added to the OEM mirrors to give additional viewing area above and behind the chassis. These mirrors shall be installed to see the front top corners of the module.



### **1.02.03X VALVE STEM EXTENDERS**

1.25" L valve stem extenders shall be installed on all four rear wheels.

### **1.02.05X RUNNING BOARDS**

Running boards made of 0.125" diamond plate with full-length NFPA-embossed aluminum diamond plate as the step surface and integrated splash guards, aft shall be installed on both sides of the chassis. The running boards shall be flared toward the front corners of module, and the entire assemblies shall be securely mounted with stainless steel 1/4"-20 truss head bolts.

*The step area of the running boards shall be tapered from the module to the front splash guard. (To match 2818-1)*



### **1.02.07X AUTO THROTTLE**

An Intermotive voltage monitor shall be installed to automatically adjust the auto throttle for changes in HVAC load.

### **1.02.09A MUD FLAPS**

Black mud flaps shall be installed behind each rear wheel.

**1.02.11X AIR HORNS**

A Grover air horn kit #1501 shall be added to the OEM chassis. Install two trumpets below the running boards one horn per side. The air horns shall be enabled in position #2 and #3 of the siren slide bar and can then be activated with a foot switch installed on both the driver's side and passenger's side.

Horn shall be tied to the OEM compressor.

**1.02.14X SUSPENSION**

The OEM rear stabilizer bar shall be removed and a LiquidSpring rear suspension system shall be installed, with a kneeling feature to activate when the rear streetside patient compartment entrance door opens within 60 minutes of the chassis ignition being turned off. An override switch labeled "DUMP OVERRIDE" shall be provided on the curbside rear wall, accessible from rear curbside door. The LiquidSpring control panel shall be installed on the chassis dash to the left of the steering wheel.

*An additional dump override switch shall be installed in the driver's console.*

**1.02.29X CHASSIS LABELS**

A permanent plate shall be provided in the cab, which shall specify:

- Overall Vehicle width
- Overall Vehicle height

*Label to be installed at customer inspection and delivery.*

**1.02.31 STATION EXHAUST**

A collar shall be installed on the OEM exhaust to allow connection to customer's Plymovent station exhaust system.

Exhaust shall terminate on the curbside, forward of the rear wheels, angled towards the rear of the module.

**1.02.35 KEYS**

Two additional vehicle keys and fobs shall be added to OEM vehicle remote keyless system for a total of four. Fobs shall be shipped loose (Section 8.01 related).

## **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.

### **1.03.02X     CAB-TO-MODULE ATTACHMENT**

The module shall be connected to the cab with a flexible watertight boot to allow cab-body flex as designed by the chassis manufacturer. The chassis back shall be replaced by an aluminum insert with integral walk-thru frame covered with black-painted polyurea thermoplastic elastomer (3.04.01 related). The insert shall be installed with 0.25" stainless steel bolts. A stainless-steel threshold shall be installed protect the bottom of the walk-thru (Section 2.13 related)

**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 MATERIAL**

EXTRUSIONS	SIZE	ALLOY
Structural Tubing	1" x 2" x 0.125" sq.	6063-T52
Structural Tubing	2" x 2" x 0.125" sq.	6063-T52
Cross Members	3" x 3" x 0.375"	6061-T6
Cross Members	1.5" x 3" 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-H32
Stainless Steel	16ga., 20ga.	304 # 4B

**2.02X MODULE DIMENSIONS**

Drop Skirt	6.00 "
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Overall Vehicle Dimensions (Specifications are listed as minimums.)

Length	24 '	7.625 "	295.63 "
Width (excluding mirrors)	7 '	10 "	94.00 "
Height (Approximate)	9 '	6.00 "	114.00 "

Exterior Module Dimensions (Specifications are listed as minimums.)

Length	13 '	11 "	167.00 "
Width	7 '	10 "	94.00 "
Height	7 '	10.375 "	94.38 "

Interior Dimensions (Specifications are listed as minimums.)

Length	Forward Wall to Rear Wall	160.00 "
Width	Left Wall to Right Wall	91.00 "
Floor Width	Left Cabinets to Squad Bench	50.25 "
Height	Floor to Ceiling	72.00 "

Load Height (Approximate)	37.00 "
With suspension dumped	32.75 "

**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. 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 be crowned, 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.

## 2.08X 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 300lb of equipment.

### COMPARTMENT #1

**Interior Dimensions** – 18"W x 76"H x 19"D

**Doorway Dimensions** – 18"W x 76"H

**Location** – Streetside, front

**Shelving** – None

**Door(s)** – Single

**Light(s)** – One vertical LED strip light

**Additional Instructions** –

- A Zico Oxygen lift, model QR-OTSL-US, shall be installed in this compartment for a *customer-supplied-and-installed* "H" size cylinder (Section 4.10 related). A handheld pendant remote shall be included, with a Zico storage bracket on the aft wall. The motor of the oxygen lift shall be installed on the right side.
- A vent with MERV 8 polyester filter media shall be installed on the forward wall.

### COMPARTMENT #2

**Interior Dimensions** – 45.25"W x 43.5"H x 19"D

**Doorway Dimensions** – 45.25"W x 43.5"H

**Location** – Streetside, forward of wheel well

**Shelving** – Two (2) adjustable

**Door(s)** – Double

**Light(s)** – One vertical LED strip light

**Additional Instructions** –

- The inverter shall be installed on the floor, forward, with a soffit vent.
- A two position load center shall be installed outboard of the inverter. (Section 6.21 related)
- The bottom shelf shall be installed directly above the inverter and the top shelf to be installed 15" above the bottom shelf.
- The aft 12" of the compartment shall be separated by a fixed wall.
- There shall be precision punches in the top and bottom of the vertical divider for additional air flow.
- A vent with MERV 8 polyester filter media shall be installed on the aft wall.

### COMPARTMENT #3

**Interior Dimensions** – 29.5"W x 43.5"H x 19"D

**Doorway Dimensions** – 29.5"W x 43.5"H

**Location** – Streetside, rear

**Shelving** – Two (2) adjustable

**Door(s)** – Double

**Light(s)** – One vertical LED strip light

**Additional Instructions** –

- A precision punched close out shall be installed on the upper aft wall.
- A vent with MERV 8 polyester filter media shall be installed on the lower aft wall.

**COMPARTMENT #4 – Inside/Outside**

**Interior Dimensions** – 29.625"W x 83"H x 19"D

**Doorway Dimensions** – 29.625"W x 75.625"H

**Location** – Curbside, rear

**Shelving** – Four (4) shelves – Three (3) adjustable and one (1) fixed

**Door(s)** – Single

**Light(s)** – One vertical LED strip light

**Additional Instructions** –

- There shall be one full depth, fixed, center divider. Two (2) adjustable vertical dividers 16" deep shall be installed aft of the fixed divider. Knock-on shall be applied to all vertical dividers.
- The upper forward portion shall provide inside/outside access.
- A boot bracket shall be installed forward of the vertical divider for a *customer-supplied-and-installed* Stryker 6252 stair chair. (**Match 3085-1**)
- The lower fixed shelf shall be installed 42" above the floor, with three (3) adjustable shelves above.
- Precision punched close out shall be installed in the aft wall.
- A vent with MERV 8 polyester filter media shall be installed on the lower aft wall.
- Compartment shall have a sweep out design.

**COMPARTMENT #5 – Inside/Outside**

**Interior Dimensions** – 21.875"W x 59.875"H x 32.75"D

**Doorway Dimensions** – 19.5"W x 78.75"H

**Location** – Curbside, front

**Shelving** – See interior cabinets #16 (above fixed shelf) and #17 (below fixed shelf)

**Door(s)** – Single

**Light(s)** – One vertical LED strip light

**Additional Instructions** –

- This compartment shall have a full width stainless steel threshold on the floor level shelf.
- A roll out battery tray capable of holding two Optima DH6 batteries shall be installed in the below floor section of this compartment. The tray shall be installed on 300lb. capacity slides with a locking right slide. Battery cable shall be long enough to allow full extension of the drawer without disconnecting the batteries. The below floor section of this compartment shall be vented to the outside (Section 6.24 related).
- *The door check shall remain in place and the customer shall remove the pin, allowing the door to open fully, on the occasions that the tray may need to be in the extended position.*

**2.09**

**MODULE DOORS**

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

**2.09.01**

**DOOR FRAMES AND SEALS**

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 single side-hinged doors shall be hinged on the outboard sides.

**2.09.03X DOOR LATCHES**

Exterior door handles shall be semi-flush, chrome-plated Eberhard E Grabber #21100. Passage doors shall have release handles on the inside of each door. 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. 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. Curbside passage and rear curbside doors shall have interior handles with dual-point, rod-actuated, rotary latch systems that are lockable inside and out. All locks shall be keyed J236.

Rotary latches with integral rotary-latch micro-switches shall be installed for single door compartments and single door module entrances. Compartments and module entrances with two doors shall have a rotary latch with a micro-switch on the door which opens first (Section 6.27 related).

Rear passage doors shall both have emergency release levers, one at the top and bottom of each door and accessible from the inside of the module.

***All latches on the curbside of the module shall be installed at the height of 41.1875" from the bottom of the module to the center of the latch. Match 3085-1***

***Curbside passage door shall have an emergency release latch at the top and bottom of the door and accessible from the inside of the module.***

**2.09.04 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 each compartment door.

**2.09.05 CURBSIDE DOOR CONTROL**

A heavy-duty, double spring door check capable of holding the door open at approximately a 90-degree angle on any road surface shall be installed at the top of the curbside passage door.

**2.09.06 REAR DOOR CONTROL**

Rear door controls shall be one grabber-type hold-open device with replaceable rubber catch, per door.

**2.09.07X COMPARTMENT DOORSKINS**

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. Red/white 1.5" conspicuity tape shall be installed on the outboard vertical edge of each door.

Compartment #4 door skin to have recessed pocket for stairchair storage.

**2.09.08 ENTRANCE DOORSKINS**

Each entrance doorskin shall be made of 0.080" bright aluminum diamond plate and be removable to service door hardware. A removable stainless-steel bezel shall be installed at mid-height on the door skin to provide access to the latch hardware and electric lock motors. Red/white 1.5" conspicuity tape shall be installed on the top, bottom, and vertical edges of the side passage door and curbside rear door. The streetside rear door shall have conspicuity tape on the top and bottom edges.

**2.09.09 ENTRANCE DOORWAYS**

One curbside and two rear module entrance doors shall be provided. The curb side doorway dimensions shall be 31"W x 79.75"H. The rear doorway dimensions shall be 49.75"W x 60"H.

**2.09.10X THRESHOLDS**

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

*The rear door threshold shall extend 5" in to the module.*

**2.10X MODULE INTERIOR CABINETS**

Shall be formed of 0.090" aluminum and shall be securely welded or mounted to the structural framing. All interior adjustable shelves shall be mounted on 1" wide aluminum adjustable track.

**CABINET #1**

**Dimensions** – 55.75"W x 16"H x 16"D

**Framed Dimensions** – 50.25"W x 12.25"H

**Location** – Streetside, upper forward

**Shelving** – One (1) adjustable

**Door(s)** – Sliding clear 0.25" polycarbonate with felt-lined anodized aluminum track in pre-formed aluminum frame, hinged at the top with gas shock lift system, latch, interlocking aluminum trim, and full extruded aluminum door pulls with integral door latch.

**Lighting** – LED under-cabinet strip light (Section 6.14 related)

**Additional Instructions**

- The closeout in the back of the cabinet shall be attached with Velcro.

**CABINET #2**

**Dimensions** – 40"W x 11"H x 11"D

**Framed Dimensions** – 35.25"W x 7.25"H

**Location** – Streetside, above CPR seat

**Shelving** – None

**Door(s)** – Sliding clear 0.25" polycarbonate with felt-lined anodized aluminum track in pre-formed aluminum frame, hinged at the top with gas shock lift system, latch, interlocking aluminum trim, and full extruded aluminum door pulls with integral door latch.

**Additional Instructions** – None

**CABINET #3**

**Dimensions** – 33.75"W x 19"H x 14.75"D

**Framed Dimensions** – 28.25"W x 15.25"H

**Location** – Streetside, upper rear

**Shelving** – One (1) adjustable

**Door(s)** – Sliding clear 0.25" polycarbonate with felt-lined anodized aluminum track in pre-formed aluminum frame, hinged at the top with gas shock lift system, latch, interlocking aluminum trim, and full extruded aluminum door pulls with integral door latch.

**Additional Instructions** – None

**CABINET #4**

**Dimensions** – 27.875"W x 23.625"H x 19"D

**Location** – Streetside, middle rear

**Shelving** – None

**Door(s)** – None

**Additional Instructions** –

- This area shall provide space for a Ferno P-300 swivel bracket for a *customer-supplied-and-installed* monitor. (Section 5.39 related)
- Corian "Flint Gray" acrylic full depth solid surface countertop with a 0.5" retaining lip and a 2"H backsplash shall be installed.
- A 120VAC GFCI duplex receptacle and a 12VDC receptacle shall be installed on the lower, streetside wall, 8" forward of Cabinet #7. (Section 6.21 and 6.25 related)

**CABINET #5 – CPR Seat with Storage**

**Dimensions** – Bench: 42"W x 18.75"H x 19"D

Storage: 42"W x 7.625"H x 19"D

**Location** – Streetside

**Shelving** – None

**Door(s)** – Hinged aluminum bench lid, with high-density foam padding covered with seamless vinyl shall provide access to the storage area. It shall have a 1.5" overhang, an automatic hold-open device, and stainless-steel paddle latch. The pad shall be removable.

**Additional Instructions** –

- The CPR seat back pad shall have high density foam padding covered with seamless vinyl.
- An 8" W storage well shall be formed in the forward end of the CPR Seat. A polycarbonate door with an finger hole, hinged on the forward side shall be installed.
- The CPR seat base to be formed from aluminum and securely anchored to sub-floor. The bottom and sides of the storage area shall be sprayed with textured gray polyurea and painted white with gray splatter.

**CABINET #6 – Action Area**

**Dimensions** – 57.75"W x 26.125"H x 19" D

**Location** – Streetside

**Shelving** – None

**Door(s)** – None

**Additional Instructions** –

- A dual port oxygen outlet, Electric oxygen panel, Bemis oxygen collector with bracket, suction regulator, attendant control panel, digital thermostat, Push To Talk button, headset jack, 120VAC GFCI duplex receptacle and 12VDC receptacle shall be installed on the Action Area wall.
- A *customer supplied* Motorola APX6500 remote radio head, deck bar and speaker shall be installed in the upper forward corner. (Section 6.18 related)
- Corian "Flint Gray" acrylic full depth solid surface countertop with a 0.5" retaining lip and a 2"H backsplash shall be installed.
- A sharps and waste space sized for a Becton-Dickinson, 8.2 Qt., sharps container and a 7 Qt. waste shall be located at the aft end of the countertop. The sharps and waste shall be accessible and changeable through a hinged clear polycarbonate flip-up lid with a finger hole.



**CABINET #7**

**Dimensions** – 17.75"W x 20.625"H x 6"D

**Location** – Streetside, aft wall of open storage area, forward facing

**Shelving** – Three (3) adjustable

**Door(s)** – Sliding clear 0.25" polycarbonate with felt-lined anodized aluminum track, interlocking aluminum trim, and full extruded aluminum door pulls with integral door latch.

**Additional Instructions** – None

**CABINET #8 – Inside/Outside**

**Dimensions** – 13.5"W x 37"H x 19" D

**Location** – Curbside, aft of squad bench

**Shelving** – See Compartment #4

**Door(s)** – Aft-hinged, clear 0.375" polycarbonate with a push button slam latch and full extruded aluminum door pulls

**Additional Instructions** - None

**CABINET #9**

**Dimensions** – 36"W x 10"H x 9"D

**Location** – Curbside, upper rear

**Shelving** – Four adjustable vertical dividers

**Door(s)** – Top-hinged clear 0.177" polycarbonate with dual gas shock lift system, push button slam latch and extruded aluminum door pulls.

**Additional Instructions** –

- There shall be aluminum adjustable track installed on the ceiling of the cabinet for mounting of vertical dividers.

**CABINET #10**

**Dimensions** – 36"W x 10"H x 9"D

**Location** – Curbside, upper forward

**Shelving** – Four adjustable vertical dividers

**Door(s)** – Top-hinged clear 0.177" polycarbonate with dual gas shock lift system, push button slam latch and extruded aluminum door pulls.

**Additional Instructions** –

- There shall be aluminum adjustable track installed on the ceiling of the cabinet for mounting of vertical dividers.

**CABINET #11 – Custom Drawer**

**Dimensions** – 13"W x 12"H x 19"D

**Location** – Curbside, forward below squad bench

**Additional Instructions** –

- This cabinet shall contain one aluminum drawer. The drawer shall operate on slides rated at 300lb per set and have a gas shock hold open/closed device to ensure drawer does not accidentally open or close during operation of the vehicle. Drawer shall be formed 0.125" aluminum construction and painted to match the interior.

**CABINET #12 – Drawer**

**Dimensions** – 13"W x 5"H x 19"D

**Location** – Curbside, Center below squad bench

**Additional Instructions** –

- The drawer shall operate on 18" slides rated at 300 lbs. per set and have a gas shock hold open/closed device to ensure that the drawer does not accidentally open or close during operation of the vehicle. Drawer shall be formed of formed 0.125" aluminum construction and painted to match the interior and formed structural support on the sides and front of drawer. The drawer shall have machine stamped divider supports along the side for at least four (4) dividers per drawer with four (4) adjustable dividers provided with drawer.
- The drawer shall have a CompX regulator combination lock installed on the face.

**CABINET #13 – Squad Bench with Storage**

**Dimensions** – Bench: 66.25"W x 18.75"H x 19"D

Storage: 28.5"W x 7.625"H x 19"D

**Location** – Curbside

**Shelving** – None

**Door(s)** – Hinged, split, aluminum bench lid, with high-density foam padding covered with seamless vinyl shall provide access to the storage area. Squad bench shall have a 1.5" overhang, an automatic hold-open device, and stainless-steel paddle latch. The pads shall be removable. The forward portion of the bench lid shall be fixed in place.

**Additional Instructions** –

- The squad bench back and/or head pads shall have high density foam padding covered with seamless vinyl.
- Three sets of two-point automatic locking retractor seatbelts shall be installed on the bench and set up for use with sit-up or stretcher patients.
- One 6pt seatbelt shall be installed on the forward end of the squad bench.
- The squad bench base to be formed from aluminum and securely anchored to sub-floor. The bottom and sides of the storage area shall be sprayed with textured gray polyurea and painted white with gray splatter.
- An 8" W storage well shall be formed at the aft end of the squad bench. A polycarbonate door with a finger hole, hinged on the aft side shall be installed.
- An oxygen outlet and a momentary rocker switch to activate the dome timer shall be installed on the forward, curbside wall over the bench.
- A fixed 18.75" x 37.5" window shall be installed above the curbside squad bench.
- A sliding aluminum privacy panel shall be installed over the curbside window and be set up to stow behind the back pad and slide to cover the window as needed. The panel shall be painted with GB-33631 white paint with an additional clear coat to be used as a dry erase surface (Section 3.07 and 4.08 related).
- Two white glove butlers shall be installed on the wall at the aft end of the curbside squad bench (Section 5.32 related).
- A personnel restraint net shall be installed at the forward end of the curbside squad bench. (Section 5.34 related)

**CABINET #14 – HVAC**

**Dimensions** – 34.75"W x 12.125"H x 21.875"D

**Location** – Front, right upper

**Shelving** – None

**Door(s)** – None

**Additional Instructions** –

- This cabinet shall house the heater/AC unit and suction pump.

**CABINET #15 – Electrical Cabinet**

**Dimensions** – 32.25"W x 13.625"H x 12"D

**Location** – Front center, above the front access area

**Shelving** – None

**Door(s)** – Aluminum, hinged, swing up door with a hold-open device, Southco M1 latch, and an automatic cabinet light.

**Additional Instructions** –

- This cabinet shall house the electrical component module.

**CABINET #16 – Inside/Outside Access**

**Dimensions** – 30.75"W x 25"H x 21.875"D

**Location** – Front, right center

**Shelving** – One adjustable shelf with 1" x1" lip down outside, and 2" lip up on the inside.

**Door(s)** – Sliding clear 0.25" polycarbonate with felt-lined anodized aluminum track, interlocking aluminum trim, and full extruded aluminum door pulls with integral door latch.

**Additional Instructions** –

- This cabinet shall provide inside/outside access to Compartment #5
- The shelf shall have a 2.5" access hole for wiring access.
- One 120VAC GFCI duplex receptacle and one 12VDC receptacle shall be installed in the back wall on the upper left side.

**CABINET #17 – Inside/Outside Access**

**Dimensions** – 32.75"W x 33"H x 21.875"D

**Location** – Front, right, below Cabinet #16

**Shelving** – One adjustable shelf with 1" x1" lip down outside, and 2" lip up on the inside.

**Door(s)** – None

**Additional Instructions** –

- This cabinet shall provide inside/outside access to Compartment #5

**CABINET #18**

**Dimensions** – 17.5"W x 24.75"H x 12"D

**Location** – Front, behind attendant seat

**Shelving** – Two adjustable shelves

**Door(s)** – None

**Additional Instructions** –

- One 120VAC GFCI duplex receptacle shall be installed on the back wall, above the top shelf on the streetside.
- A wiring access hole shall be installed in both shelves and shall be installed through the bottom of this cabinet into Cabinet #19.

**CABINET #19 – Radio**

**Dimensions** – 17.5"W x 26"H x 12"D

**Location** – Front, below cabinet #18

**Shelving** – One adjustable shelves

**Door(s)** – Aft facing, removable, aluminum panel with precision punches in the upper and lower portion and a SouthCo C2 latch.

**Additional Instructions** –

- A wiring access hole shall be installed in both shelves.
- One Motorola APX6500 radio transceiver, a 5025 Blue Sea fuse block, Siren amplifier and EQ2B amplifier shall be installed in this cabinet. (*Match 3085-1*)

**2.11A SIDE DOORSTEP**

A recessed curbside double doorstep shall be provided which is 19"D x 31"W at the curbside passage door. There shall be a drain hole and light gray Matéflex floor tile which is removable for cleaning purposes. Aluminum diamond plate kick panel shall be installed on the sides and face of the doorstep.

**2.13B CAB TO MODULE PASSAGE**

Shall be a walk-thru measuring 17.25W x 37"H. A sliding door, with a handle on the cab side, shall be provided. The door shall be latchable in the open and closed positions. The door shall have aluminum side frames with a polycarbonate center viewing area.

**2.14 WHEELWELL LINERS**

Wheel well liners made of formed aluminum shall be installed in the module wheel well openings.

**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.



**3.07 INTERIOR CABINETY FINISH**

All interior cabinetry shall be sanded, etched, washed, primed, coated with textured polyurea thermoplastic elastomer, and painted white with light gray splatter paint. (G2-33631 Alt 2 / GLV-51748)

All drawers, shelves and trays shall be sanded, etched, washed, primed, and painted white with light gray splatter paint. (G2-33631 Alt 2 / GLV-51748)

**3.08 MODULE UPHOLSTERY**

Module upholstery material shall be Dove Gray Spradling Perform 60 seamless vinyl.

**3.09A MODULE FLOORING MATERIAL**

Shall be Genome (#TFM2702) Altro Transflor Meta Slip-Retardant Sheet flooring providing durability, ease of maintenance and stain resistance. It shall contain a high concentration of microscopic aluminum oxide particles and colored quartz crystals suspended throughout the thickness with silicon carbide grains in the entire wear surface for slip-retardant performance. It shall have a bacteriostat incorporated to give flooring excellent anti-bacterial activity and an overall thickness of 0.11" nominal. Flooring shall be manufactured for Wear Resistance to meet ASTM C 501, indentation resistance in accordance with ASTM F 1303 and ASTM F 970, Grade 1 standards, shall meet ASTM D 2047 Slip Retardant, ASTM F 970 Static Load, ASTM E648, CMVSS, FMVSS 302, CAN ULC S102.2 Fire Data Tests. (Section 5.04 Related)

An insulated floor shall be installed over the subfloor. It shall be constructed with square tubing (0.75" x 0.75" x 0.063"), filled with 0.75" thick polyiso insulation, and covered with 0.125" aluminum sheet. (Section 2.04 related)

**3.10 COMPARTMENT LINING**

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

**3.11 CABINET LINING**

Interior cabinet shelves shall be lined with easy sweep mats which are removable for ease of cleaning.

**3.12 SURFACES AND FINISHES**

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

**3.14X PLACARD PLATES**

Seven black *smooth* powder-coated; custom aluminum plates shall be provided.

- Two 12" W x 4.5"H on the front of the module, installed below the outboard corners of the lightbar.
- Two 12" W x 4.5"H on the rear of the module, installed above the mid height flashers
- Two 27" W x 8"H on the sides of the module. One installed on the streetside, centered between the scenelights and one installed on the curbside, centered between the scenelights.
- One 36" W x 8" H on the rear of the module. Centered on the rear kick panel with "**STAY BACK 300 FEET**" decal on plate. (Section 3.05 related)

## **4** **MODULE EXTERIOR**

### **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 *NFPA* 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 7" 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. Bumper to be designed to accommodate a one-person-style cot.

### **4.01.01** **DOCK BUMPERS**

Two heavy-duty black rubber dock bumpers, 2" x 2" x 7.75", shall be mounted on the rear face of the bumper.

### **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 red/white conspicuity reflective tape installed in the insert area.

### **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.

### **4.04X** **DRIP RAILS**

Extruded, anodized aluminum drip rails shall be installed the full length of the module front, rear, and sides near the roof, and over each exterior compartment and 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.  
*Four additional 163" drip rails shall be shipped loose* (Section 8.01 related).

### **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 15" across the front of the module.

### **4.06** **REAR KICK PANEL**

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.

**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.

A fill shall be provided for the DEF tank in the OEM location.

**4.08X MODULE 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. The side passage door window shall be 18.75" x 18.75" with sliding glass, a positive catch, and a screen. The rear door windows shall be 18.75" x 18.75" with sliding glass, a positive catch, and a screen. The curbside module window shall be 18.75" x 37.5" with fixed glass. It shall be installed above the curbside bench seat.

A sliding aluminum privacy panel shall be installed over the curbside window and be set up to stow behind the back pad and slide to cover the window as needed. The panel shall be painted with GB-33631 white paint with an additional clear coat to be used as a dry erase surface (Section 3.07 and 2.10X related).

***Black vinyl roll-up window coverings with snaps shall be installed above the interior of the all passage door window(s).***

**4.09X FUEL SPLASH GUARD**

An *extra-long* stainless-steel fuel splash guard shall be installed below the fuel fill.

**4.10 OXYGEN STORAGE**

A Zico #QR-OTSL-US oxygen cylinder lift shall be installed in Compartment #1. A handheld pendant remote shall be included, with a Zico storage bracket on the aft wall.

**4.16 REAR LICENSE PLATE**

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

**4.27 STAIR CHAIR STORAGE**

A boot shaped bracket shall be installed by BNW in Compartment #4 for storage of a *customer supplied and installed* stair chair. (Section 2.08X related)

**4.33 BELOW FLOOR INSULATION**

To further enhance noise-insulating properties of the floor system, an acrylic insulating coating shall be applied to the entire bottom surface of the module, including wheel well liners.

**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**

All interior hangers, supports, fasteners, latches, and hinges shall be of a near-flush-type design. The patient compartment shall be free of sharp projections. Exposed edges and corners shall be broken with a radius or protected with 1" high-density foam covered with heavy-duty vinyl color-matched upholstery.

### **5.01 UPPER WALL COVERING**

The upper module interior walls shall consist of light gray, heavy-grade, 0.125" ABS vinyl panels attached to the wall structure with a closed-cell polyethylene foam tape coated on both sides with a permanent acrylic-based pressure-sensitive adhesive.

### **5.02 HEADLINER**

The headliner shall be 0.125" aluminum which is sanded, etched, washed, primed, and coated with textured polyurea thermoplastic elastomer, and painted white with light gray splatter paint (G2-33631 Alt 2 / GLV-51748).

### **5.03 HEAD PADS/CUSHIONS**

Head pads located over all module access openings and seat backs shall be 0.5" or 1" foam covered with heavy-duty seamless vinyl upholstery.  
Seat cushions shall be 3" foam covered with heavy-duty seamless vinyl upholstery (Section 3.08 related).

### **5.04A LOWER WALL COVERING**

The squad bench sides and lower portion of the streetside wall shall be covered with polished stainless-steel from the floor line up to the bottom of Action area countertops and squad benches (Section 3.09 related).

### **5.05X GRAB RAIL**

One 90"L x 1.250"D stainless-steel grab rail with three support brackets shall be securely mounted to roof structural framing running through centerline.

***The grab rails shall be installed with nutserts.***

Rail shall be treated with an anti-microbial agent consisting of an inorganic ceramic coating embedded with silver ions.

### **5.06X ACCESS DOOR GRAB RAILS**

Each module access door shall have a 1.250" "L" style stainless-steel grab handle which may also be used as an entry assist rail.

***The grab rails shall be installed with nutserts.***

Rail shall be treated with an anti-microbial agent consisting of an inorganic ceramic coating embedded with silver ions.

### **5.07X IV HANGERS**

Three ceiling-mounted Cast #IV2008 recessed IV hangers shall be installed: one over the squad bench, one over the primary cot and one at the foot of the cot.

**5.08X COT MOUNT**

A Stryker #6392 non-loading Performance-LOAD cot fastener system with floorplate and inductive charging shall be installed by BNW. A safety hook shall be installed in the Performance-LOAD floor plate.

The Performance-LOAD anchor assembly shall be installed to position the aft end of the cot 11" forward of the rear doors.

A 20-amp breaker and 10ga. 12VDC power and ground shall be installed, running from the electrical cabinet to the Performance-LOAD.

To allow use of non-Power-LOAD, X-frame cots with the Power-LOAD system, a floor plate with plastic cover shall be provided and installed for mounting a BNW provided rear rail clamp, which shall be shipped loose (Section 8.01 related).

**5.09 COT PLATES**

Two bright finish stainless steel 7" wide cot plates shall be installed and shall run from the rear passage doors to the forward wheel position. The cot plates shall be attached with a reinforced acrylic tape and polyurethane adhesive sealant system.

**5.10X ATTENDANT SEAT**

A Wise #1615 rear-facing high-back bucket seat with a built-in child safety seat and upholstered with heavy grade vinyl, Dove gray, shall be located at the head of the cot position and provide easy access to all action wall controls and outlets, and to the patient. Seat shall swivel, have a 2-point automatic locking retractor seatbelt, and be securely anchored on a #1934 swivel base.

*The attendant seat shall be installed so there is 18" between the front of the attendant seat pad to the front of the forward cot mount when the seat is adjusted towards the cot. The lateral position shall be approximately 10" from the action area wall.*

**5.11A OXYGEN SYSTEM**

The entire oxygen system to be assembled with certified oxygen hose (1000 PSI burst strength) with brass fittings, pressure tested, and certified. The electric oxygen system shall be controlled through an electric solenoid with manual bypass, have an LED content display, and audible low-pressure alarm. A 50 PSI regulator shall be included, and one oxygen tank wrench shall be attached to the Compartment #1 wall with hook-and-loop tape.

A switch labeled "ELECT. 02" shall be installed in the Action Area attendant panel to turn on/off the electric oxygen system (Section 6.13 related).

Three Ohio-type outlets shall be installed:

- One dual port in Action Area #6
- one on the curbside wall above the squad bench

One recessed oxygen outlet with 0 – 25 LPM constant flow regulator with barbed outlet shall be installed over the head of the cot.

**5.12 SUCTION PUMP**

The unit shall have an electric pump as the source of suction, installed in the HVAC cabinet #14, and be vented to the outside of the vehicle under the module body. The pump shall be controlled by an on/off switch labeled "ASPIRATOR" on the attendant panel in Action Area #6.

**5.13A SUCTION COLLECTOR**

A flush mount SSCOR #22000 suction regulator and #22002 stainless steel wall-mount bracket with a 1200cc Bemis disposable canister shall be installed in the Action Area #6.

**5.14X SEATBELTS**

Black DOT-compliant seatbelts shall be installed at each seating position. Three sets of two-point automatic locking retractor seatbelts shall be installed on the squad bench with three additional lower seatbelt buckle ends and be set up for use with sit-up or stretcher patients.

One Six-point restraint (EVS BE6SBKBM) shall be installed at the forward seating position of the curbside squad bench. The attendant seat and CPR seat shall each have a single two-point automatic locking retractor seatbelt.

**5.16 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 3" wide, 60-mil, closed cell polyethylene foam tape shall be used as a thermal break on the inside surface of the roof and wall tubes.

**5.17X MODULE CLIMATE CONTROL SYSTEM**

The module HVAC system shall incorporate a combination heating/air conditioning unit with 36,000 BTU/hr. heating and 32,000 BTU/hr. cooling capacity. The unit shall have a 580 CFM fan and controls independent of the cab system. A 12VDC booster pump shall be installed to optimize the heating capacity in the module. A return air path with open area equal to at least twice the blower outlet area shall be incorporated into the evaporator closeout.

The module system shall be controllable by a digital thermostat located on the streetside wall in the Action Area #6. There shall be an On/Off switch labeled "HEATER-A/C" located in the Driver's console to control power to the digital thermostat.

Six vents shall be installed in the module headliner, curbside of the Grab Bar, spaced evenly and one vent above the CPR seat on the streetside.

A 67,000 BTU/hr. auxiliary dual fan skirt-mounted condenser shall be added to the chassis frame to increase the cooling capacity and efficiency of the system.

**5.18 EXTERNAL AIR INTAKE**

To supplement heated or cooled air with fresh air, an external air intake shall be provided on the side of the module. The intake shall consist of an opening protected by an aluminum vent cover. The interior chamber of the intake shall be made of aluminum and be formed to prevent the collection of moisture. Washable filter media shall be installed in the intake chamber.

**5.19 AIR RETURN**

A return air path with an open area equal to at least twice the blower outlet area shall be incorporated into the evaporator closeout.

**5.20 EXHAUST VENT**

A motor-powered exhaust vent with a chrome Perko cover shall be located in the streetside forward corner of the module.

A switch labeled "VENT" shall be installed in the Action Area attendant panel to turn on/off the exhaust vent (Section 6.13 related)

**5.21 NO SMOKING/FASTEN SEAT BELTS SIGNS**

Two "NO SMOKING/FASTEN SEATBELTS" signs shall be installed - one in the cab on the glove box door, and one in the module above the Action Area oxygen outlet.

**5.23 WHITE MARKER BOARD**

A sliding aluminum privacy panel shall be installed over the curbside window and be set up to stow behind the back pad and slide to cover the window as needed. The panel shall be painted with GB-33631 white paint with an additional clear coat to be used as a dry erase surface (Section 3.07 related).

**5.24 CLOCK**

An atomic-controlled clock shall be installed centered on the head pad above the rear passage doors. The clock shall be LCD display and show hours (12/24 selectable), minutes, seconds, date, day, and temperature. Clock shall be powered by two AA alkaline batteries.

**5.26 SHARPS & WASTE**

One Becton Dickinson 8.2 qt. sharps container and one 7 qt. waste container shall be installed at the aft end of the Action Area #6 countertop, with a hinged clear polycarbonate cover with an access hole over the sharps and a finger hole.

One 7qt waste container shall be mounted to the rear, curbside passage door with a stainless-steel bracket.

**5.32 GLOVE BUTLERS**

Two bolt-on white (GB-001) glove butlers shall be installed on the aft, forward facing wall of the curbside squad bench.

**5.34 PERSONNEL RESTRAINT**

A net system installed at the forward end of the curbside squad bench to prevent a person seated on the bench seat from traveling forward off the seat and into the front cabinetry due to sudden braking. The net system shall be constructed of black 2" webbing and shall be easily detached for cleaning or replacement.

**5.35X INTERIOR OXYGEN STORAGE**

Two Ferno #521 Universal Cylinder brackets shall be installed in the forward side of the double step well, one on each step.

*Additional straps shall be provided to keep cylinders from rattling.*

**5.39 MONITOR/DEFIBRILLATOR BRACKET**

A BNW supplied Ferno M-200 swivel surface mounted bracket for a *customer supplied and installed* LifePak 15 monitor shall be installed in Action Area #4.

## **6 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 4" 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 in Cabinet #15

### **6.02X VOLTMETER/AMMETER**

A Blue Sea BS1830 multimeter monitor shall be installed on the top of the driver's console, facing the driver.

A BlueSea Floyd Bell Turbo series 1070 alarm shall be installed to the right of the voltage monitor. (*Match 3085-1*)

Multimeter will monitor:

- Starting battery voltage
- Boost battery voltage



### **6.04 IGNITION CONTROL**

Chassis electrical circuits shall be controlled by the ignition switch as provided by the OEM chassis manufacturer. The auxiliary chassis-related functions shall be powered by one 100-amp continuous duty solenoid, triggered by the chassis ignition.

**6.05A MODULE POWER**

Module power shall be controlled by a driver's console-mounted switch labeled "MODULE DISC." which activates an InPower #SSC42-275 solid state contactor (Section 6.09 related). 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.

**6.06X WIRING ACCESS**

All cabinets and compartments shall have removable panels as needed to access wiring harnesses and hoses except Cabinet #1 shall have Velcro to hold the ABS in place instead of screws.

**6.07 BACK-UP ALARM**

An SAE J994-compliant self-adjusting back-up alarm shall be installed, with a momentary disable switch labeled "BACK-UP DISABLE" in the driver's console (Section 6.09 related). If disabled while in reverse, the back-up alarm shall automatically reset when shifted out of reverse.

**6.08 SERVICE LOOP**

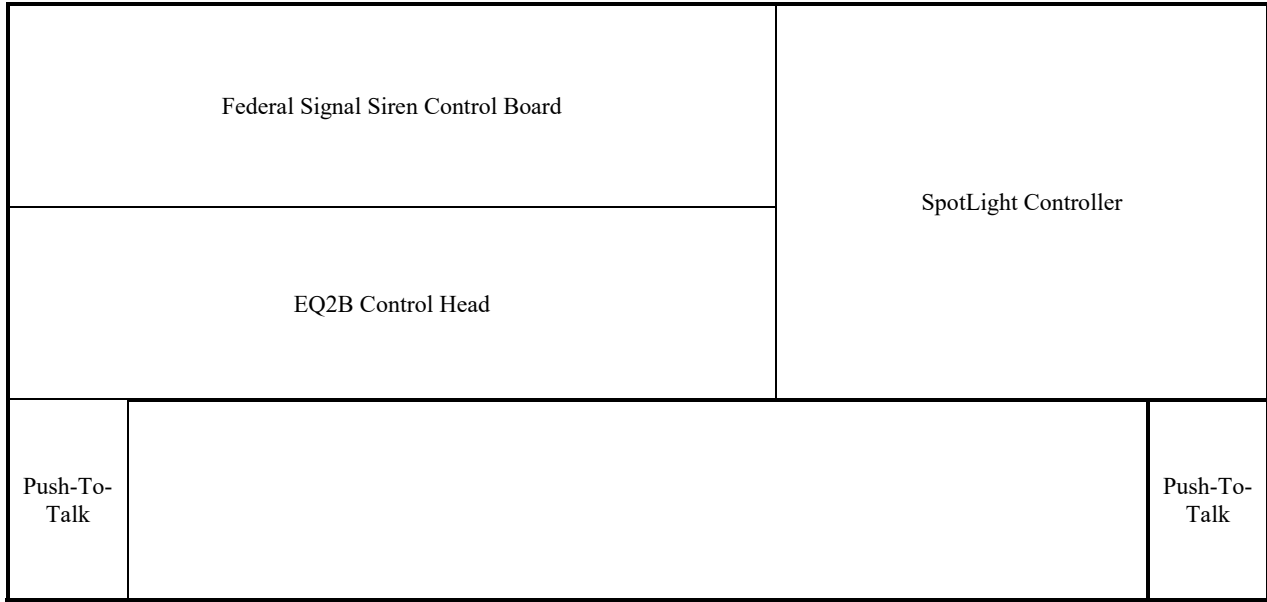
A 6" service loop of wire or harness shall be provided at all electrical components, terminals, and connection points.

**6.09X DRIVER' S CONSOLE**

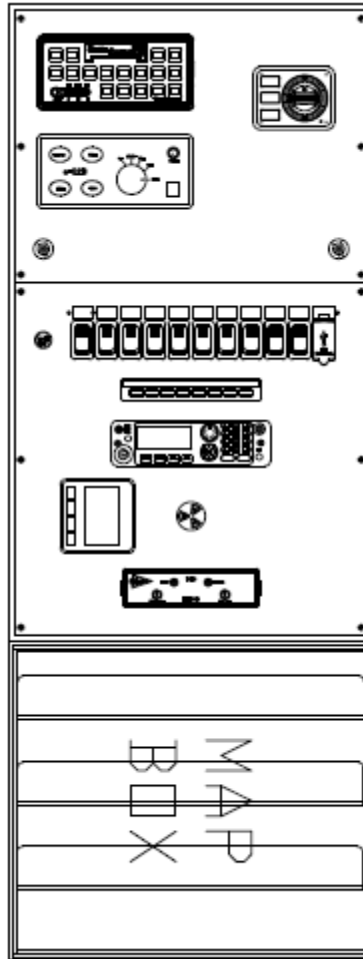
A custom console and mapbox made of black powder coated formed aluminum shall be installed between the seats with the following configuration:

- The forward section shall provide space for a Federal Signal Siren control board, spotlight controller, EQ2B Siren Control and push to talk buttons. The front of the console shall be precision punched and the speaker shall be installed inside the drivers' console.
- The center section shall provide space for all switches, 12VDC USB port, a *customer-supplied* Motorola APX6500 remote radio head and deck bar, and Sigtronics control head.
- The aft section shall provide space for a removable map box with dividers installed vertically (Section 8.02 related).

***Wiring harness shall be secured to the floor of the chassis with a stainless-steel guard to protect harness from mapbox insertion and removal.***



D/O Light	1.	2	3	4	5	6	7	8	9	10	11
	Module Disc	Heater/A/C	Spare	Siren/EQ2B	Back-up Disable	Battery Boost	Spare	Dome	Dump Override	Blank	Dual USB
<i>Customer-supplied</i> Motorola Deck Bar											
<i>Customer-Supplied</i> Motorola APX6500 remote head											
BlueSea Multi-meter				BlueSea Low Voltage Alarm							
			Sigtronics Control Head								



**6.10 SWITCHES**

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

**6.11X MAP LIGHT**

A map light with a 19" flexible neck shall be shipped loose (Section 8.01 Related)

**6.12 DOOR AJAR WARNING LIGHT**

A flashing LED with a red lens shall be provided on the driver's console to warn the driver of an open module passage or compartment door. The light shall flash only when the ignition is on. The light shall provide door open indication when the module compartment or passage door rotary-latch is not fully latched in the second latch position. The light shall be installed on the driver's console (Section 6.09 & 6.27X related).

**6.13X ATTENDANT CONTROL PANEL**

An 8-position attendant control panel shall be located on the streetside wall in the Action Area (#6) with the following switch layout:

1.	2.	3.	4.	5.	6.	7.	8.
Left Dome Hi/Lo/Off	Right Dome Hi/Lo/Off	Attendant Light	Aspirator	Vent	Elect. O2	Blank	USB

A digital thermostat shall be located adjacent to the attendant panel.

**6.14 CABINET LIGHTING**

The wall area below Cabinet(s) #1 shall be lighted utilizing under-cabinet LED strip lighting with an on/off switch labeled "ATTENDANT LIGHT" in the streetside attendant panel.

**6.15 STEPWELL LIGHT**

A Whelen #3SC0CDCR Clear Lens Clear 3" LED light shall be installed on the forward wall of the curbside door stepwell.

**6.16X MODULE INTERIOR LIGHTING**

Shall be designed to maintain maximum headroom without interfering with the structural integrity of the roof. Module interior lighting shall consist of eight Whelen #80C0EHCR dual intensity LED recessed lights:

- One bank of four lights shall be positioned toward streetside
- One bank of four lights toward curbside

There shall be a switch for each bank of dome lights in the streetside attendant panel. A single switch shall be provided on the driver's console to control both banks of dome lights. Dome light switches shall be momentary contact HI-LO-OFF switches. Pressing the top of the switch shall increase intensity. Pressing the bottom of the switch shall decrease intensity.

The curbside bank of lights shall be automatically activated when the rear or side doors are opened or by a momentary rocker switch labeled "DOME TIMER" mounted on the wall near the curbside passage door, which shall activate a battery hot timer. Pressing the switch once shall initiate 15-minute timed operation of the lights. Pressing the switch again shall cancel the timed operation.

***An additional "DOME TIMER" switch shall be installed adjacent to the rear curbside passage door.***

**6.17X 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 and turn lights shall be Whelen 600 Series LED lights with chrome flanges, installed horizontal on each side of the rear kick panel with the following pattern: #60A00TAR Amber Lens Amber turn signal, and #60BTT Red Lens red stop/tail light.

Back-up lights shall be Whelen 600 series #60C00VCR LED lights with chrome flanges, installed on each side of the module just above the rear kick panel. The back-up lights shall activate automatically when the vehicle is placed in reverse.

One 700 series LED brake light, model 70BTT, with chrome flange shall be centered above the rear passage doors.

**6.18X COMMUNICATIONS EQUIPMENT**

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

**Item #1**

**Description:** One *customer-supplied* Motorola APX 6500 radio transceiver with two remote radio heads, two deck bars, two auxiliary speakers and a communications harness shall be installed by BNW. (Section 8.02 related).

**Location:** Transceiver in Cabinet #19, one remote head with one deck in the drivers' console, and one remote head with one deck bar in the upper forward portion of Action Area #6.

One speaker shall be installed inside the drivers' console and one speaker shall be installed in the forward portion of the action area adjacent to the remote head.

**Additional Instructions:**

All connections shall be made, including antenna, antenna cable(s), battery power, ignition power, and grounds. Prior to powering up of the module, all in-line fuses of radio equipment shall be removed and secured to their fuse holders.

Radios shall be wired battery hot.

Communications harness shall run from the radio cabinet to the drivers' console and Action area #6.

**Item #2**

**Description:** Prewire, including 10ga. power and 10ga. ground, for future installation of *customer-supplied-and-installed* equipment.

**Location:** From Electrical panel to drivers' 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.

**Item #3**

**Description:** One *BNW supplied* Sigtronics Push to Talk US-67D system with one SE-9 wireless headset and two SE-8 wired headsets, three jack modules and radio interface shall be *installed by BNW*.

**Location:** Intercom unit in the driver's console. Three Push-To-Talk buttons, one on each side of the console face in the upper portion (push button only, no box); and one on the Action Area wall forward of the radio (with box). The head set plug in boxes are to be installed over the walk thru bulk head wall above the driver and the passenger and one on the Action Area wall forward of the Push-To-Talk button.

**Additional instructions:**

All radio traffic shall be set up to both transmit and receive through the Sigtronics headsets. Push to talk buttons shall be set up to transmit traffic when pressed.

**Item #4**

**Description:** One *BNW supplied* Blue Sea 5025 six-position fuse block.

**Location:** Radio Cabinet #19, wired battery hot

**Additional Instructions:** Fuse block shall be wired battery hot and tied to a 60-amp, manual reset, switchable breaker.

**Item #5**

**Description:** CAT6 Ethernet cable

**Location:** From Cabinet #19 to Cabinet #16 .

**Additional Instructions:** Cable shall be properly labeled at both ends, with an RJ45 connection in Cabinet #19 and connected to a wall plate in Cabinet #16  
Cable shall have 12" of service loop on each side.

**6.19X**

**ANTENNA MOUNTS AND CABLES**

One *customer-supplied* GPS antenna shall be installed on the cab roof and two *customer-supplied* NMO antennas shall be installed on the module roof. Antenna base access shall be through the dome light openings, and the cables shall terminate in Cabinet #19.



**6.21X SHOREPOWER/120VAC RECEPTACLES**

Utility power shall be furnished from 120VAC shorepower via a Hubbell HBL5278C 15-amp manual plug with Black Marinco 5278BWP cover and a green indicator light on a stainless-steel plate located on the streetside forward corner of the module.

All exposed receptacles beyond the inverter shall be ground-fault-circuit-interrupting (GFCI) and shall have a power on indicating light.

Four interior 120VAC GFCI duplex grounded receptacles shall be installed:

- One Action Area (#6)
- One in Cabinet #16
- One in Cabinet #18
- One in Cabinet #4

Load Center

1.	Inverter (15-amp)	2.	Receptacles (15-amp)
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**6.22 BATTERY GROUNDS**

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

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

**6.23X BATTERY CHARGER**

A 85amp battery charger shall be provided as part of the Aims 2500 Watt Pure Sine Inverter Charger (Section 6.31X related)

**6.24X BATTERY MODIFICATIONS**

The two OEM batteries shall be removed and shipped loose (Section 8.01 related)

Two Optima DH6 batteries shall be installed in the OEM locations. Two additional Optima DH6 batteries shall be installed in the curbside forward exterior compartment on a 300lb roll-out battery tray with a locking right slide.

The two batteries on the battery tray shall be electrically isolated from the two main batteries using a Blue Sea 500-amp ACR, kit #7622. There shall be no loads connected to the auxiliary batteries on the battery tray.

A “Battery Boost” momentary switch wired to the auxiliary batteries, shall be installed in the driver’s console.

**6.25 12VDC POWER SUPPLY**

Three 12VDC, 15-amp lighter-style power point receptacles shall be provided:

- One in Action Area #6
- One Cabinet #16
- One in Cabinet #4

Two USB dual charging ports shall be installed:

- One Blue Sea USB switch-insert-style in the attendant panel
- One Blue Seat USB switch-insert-style in the drivers console

Power point receptacles, USB charge ports, and 12VDC charging circuits shall be powered from a 12VDC bus that is energized when charging voltage is present on the vehicle batteries.

**6.26 COMPARTMENT LIGHTING**

LED strip lighting shall be installed in each outside compartment, and shall be activated by the respective compartment door switch.

**6.27 EXTERIOR DOOR SWITCHES**

Shall be integral rotary-latch micro-switches for door open indication and 1/2" mechanical door switches for compartment light, dome light, scene light, and suspension dump control.

## **6.30 EMERGENCY WARNING SYSTEMS**

Slide bar positions to be:

- Position #1 – Ambers
- Position #2 – Position 1 and grille lights, intersection lights, air horns and Opticom
- Position #3 – Position 1 & 2 and lightbars, flashers, flashing headlights, siren.

Note: Siren is to default to Standby mode and be connected to the HF function.

### **6.30.01A FRONT LIGHTBAR**

An 88" Whelen 4500 Plus Series LED lightbar shall be surface-mounted on the front of the module, pattern curbside to streetside:

Curbside	Clear Lens Red Super-LED corner flasher
	Clear Lens Red 700 Series Super-LED flasher
	Clear Lens Clear 700 Series Super-LED flasher
	Clear Lens Red 700 Series Super-LED flasher
	Clear Lens Red 700 Series Super-LED <b>steady burn</b>
Center	Opticom GTT 792H Strobe
	Clear Lens Red 700 Series Super-LED <b>steady burn</b>
	Clear Lens Red 700 Series Super-LED flasher
	Clear Lens Clear 700 Series Super-LED flasher
	Clear Lens Red 700 Series Super-LED flasher
Streetside	Clear Lens Red Super-LED corner flasher.

Lightbar shall activate in Position #3 of the siren slide bar.

The Opticom and white lights shall deactivate when vehicle is placed in park.

### **6.30.02 REAR UPPER FLASHERS**

Two Whelen M9 series lighthoods with chrome flanges shall be installed on the rear of the module in the upper, outboard corners, pattern curbside to streetside:

Curbside:	Clear Lens Red #M9RC flasher
	#7SC0ENZR LED scenelight (Section 6.30.04 related)
Center:	Clear Lens Red 70BTT LED third brake light (Section 6.17X related)
	#7SC0ENZR LED scenelight (Section 6.30.04 related)
Streetside:	Clear Lens Red #M9RC flasher

Flashers shall activate in Position #3 of the siren slide bar

### **6.30.03X FLASHERS**

Four Whelen M9 #M9RC Clear Lens Red Super-LED flashers with chrome flanges shall be mounted two on each side of module in upper corners.

Flashers shall activate in Position #3 of the siren slide bar.

Two Whelen M9 #M9AC Clear Lens Amber Super-LED flashers with chrome flanges shall be mounted on the rear of the vehicle at window height.

Amber flashers shall activate in position #1, #2, and #3 of the siren slide bar.

**6.30.04X SCENELIGHTS**

Four Whelen M9 #M9LZC Super-LED scenelights with chrome flanges shall be installed-two each on the curbside and streetside of the module.

Two Whelen model #7SC0ENZR Super-LED load lights with chrome flanges shall be installed above the rear passage doors.

The curbside scene lights shall activate with a switch in the siren or with the opening of the curbside passage door. The rear scenelights shall activate with a switch in the siren or when rear passage door is opened.

The streetside scenelights shall activate with a switch in the siren.

Scenelights shall be activated by their respective switches on the Federal signal siren.

**6.30.05X SPOTLIGHT**

A Whelen Arges1 Remote Spotlight Kit shall be installed on the center of the cab roof. A hard-wired controller shall be mounted on the drivers console.

**6.30.06X INTERSECTION LIGHTS**

Two Whelen #M7RC Clear Lens Red flashers with chrome flanges shall be installed on the module above the wheel wells.

Two Whelen #M7RC Clear Lens Red intersection lights with chrome flanges shall be installed, one centered on each cab fender.

Lights shall be controlled by the slide bar siren in position #2 & #3.

**6.30.08X GRILLE LIGHTS**

Two Whelen #M7RC Clear Lens Red with chrome flanges shall be installed on the OEM grille:

Lights shall be controlled by the slide bar siren in position #2 & #3.

**6.30.09X SIREN**

Federal Signal SSP2000B-200. The amplifier shall be installed in cabinet #19.

Slide bar positions to be:

- Position #1 – Ambers
- Position #2 – Position 1 and grille lights, intersection lights, air horns and Opticom
- Position #3 – Position 1 & 2 and lightbars, flashers, flashing headlights, siren.

Note: Siren is to default to Standby mode and be connected to the HF function.

The hands-free horn press will activate the first programmed siren tone, which will be “Wail”. Each subsequent horn press will switch the siren to the next programmed tone. A double tap horn press will deactivate the siren tones.

A Federal Signal EQ2B siren with amplifier shall also be installed. The EQ2B shall function with a foot switch on the driver’ s side and a switch in the console. EQ2B siren shall be flush mounted in the console and wired ignition hot.

**6.30.10X SIREN SPEAKERS**

Two Federal Signal BP200EF 200 watt speakers with ESB-ESFMT-EF “Electric F” stainless steel grilles shall be installed in the OEM bumper. Smart siren shall be wired to streetside speaker, EQ2B siren to the curbside speaker.

**6.31X INVERTER**

An AIMS 2500 Watt Pure Sine inverter with 85amp battery charger installed in Compartment #2 with a perforated surround. The AIMS remote panel shall not be removed from the inverter.

**6.40X ELECTRIC DOOR LOCKS**

Electric door locks shall be installed on all compartment and module passage doors. Two lock/unlock switches shall be provided in the module: one located on the rear curbside passage door, and one located on the curbside passage door. The door locks for the cab and module shall be interconnected, to allow all doors to be locked/unlocked from either the cab or module.

The locks shall be controlled remotely with OEM and key-fob-type controllers. A "Hidden Unlock Switch" shall be installed in the front grille area.

**6.43X GROUND LIGHTS**

Four Truck-Lite #6060C LED ground lights with brackets shall be installed:

- One forward of the streetside wheel well
- One aft of the streetside wheel well
- One forward of the curbside wheel well
- One aft of the curbside wheel well

Lights shall activate with the opening of compartment doors on the streetside and curbside.

**6.46 AUDIO/VIDEO/RECORDING EQUIPMENT**

**Item #1**

**Description:** A Rostra surface-mounted back-up camera shall be installed.

**Location:** Above the rear passage doors

**Additional Instructions:** Camera shall be connected to the OEM 8" in-dash touchscreen display. Camera shall automatically display on screen when the vehicle is placed in reverse.

**6.48 TRAFFIC SIGNAL PREEMPTION**

Lightbar shall include a center-mounted GTT #792H Opticom traffic preemption emitter. Opticom shall disable when the vehicle is placed in park. Opticom shall be activated by the Federal signal slide bar siren in position #2 & #3.

## **7 SUPPORTING DOCUMENTATION**

### **7.01X OWNERS MANUAL**

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

1. Chassis owner information packet.
2. Extra set of keys (3 OEM fobs total)
3. Lifetime module warranty.
4. Factory warranty on Chassis.
5. 7 Year/75,000 mile limited electrical warranty.
6. 2 Year/30,000 mile Conversion Warranty.
7. 5 Year Paint Warranty.
8. Module remount engineering check list
9. Climate control information and warranty.
10. Main schematic.
11. Electrical Load Test.
12. Wire coding list.
13. Schematics for standard system: (As Built)
  - Driver switch console
  - Attendant switch console
  - Climate control system
  - Dual battery system
  - Module harness routing
  - Interior and exterior lights
14. Operations manual
15. Schematics for individual options.
16. Warranty and parts list for light bar, etc.

## **8 MISCELLANEOUS EQUIPMENT**

### **8.01 LOOSE EQUIPMENT**

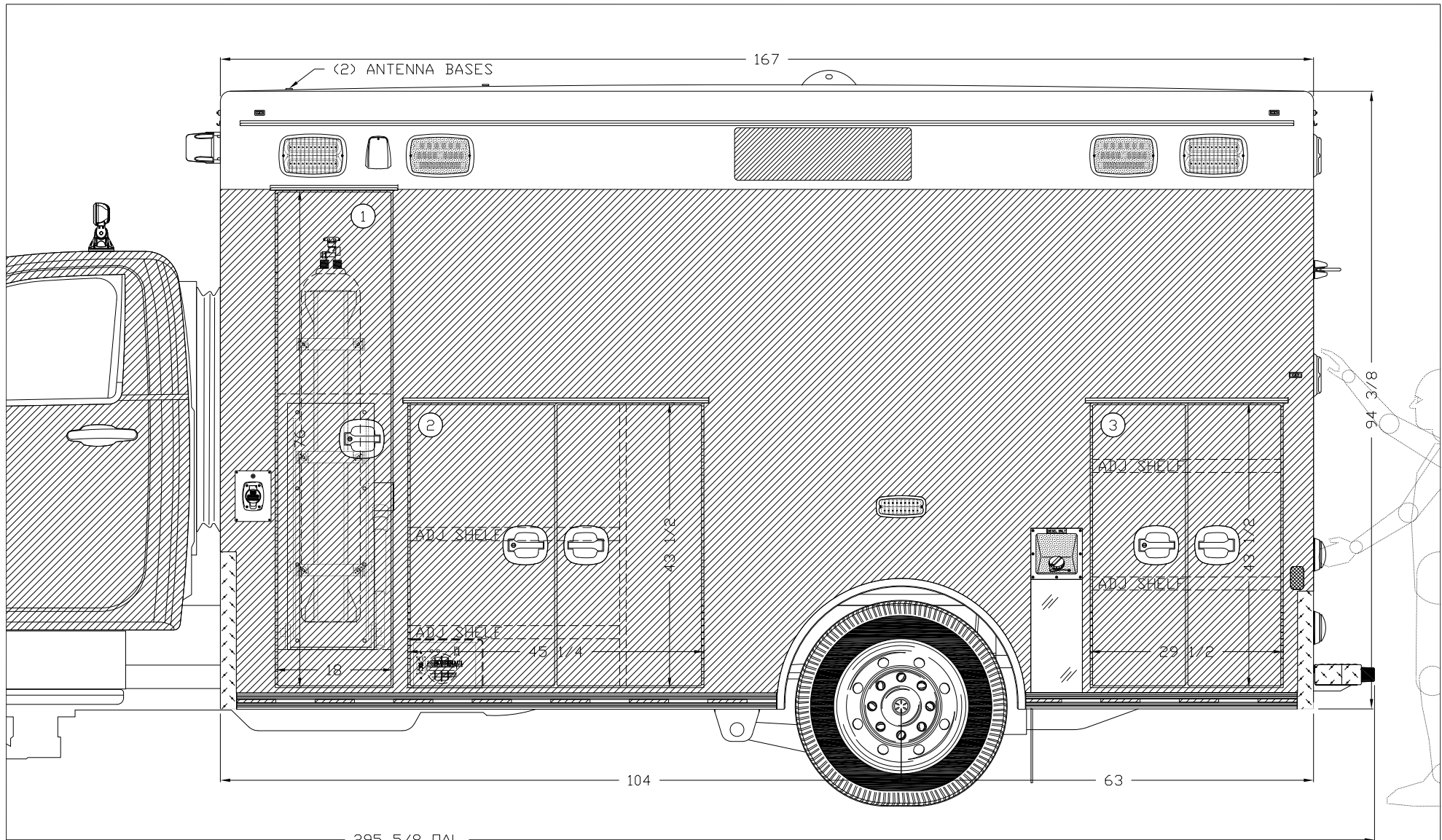
The following equipment shall be shipped loose with the vehicle:

1. Touch up paint, One (1) each color below:
  - Red GB-1354846
  - White G2-33631 Alt 2
  - Gray G8-51748
3. One (1) Map light with 19" flexible neck
4. One (1) spare aluminum wheel/tire
5. Two (2) additional OEM Chassis Key FOB
6. Two (2) Compartment Keys
7. 4 additional full-length drip rails
8. Two OEM chassis batteries

### **8.02X CUSTOMER SUPPLIED EQUIPMENT**

The customer shall provide the following equipment and have delivered to Braun Northwest:

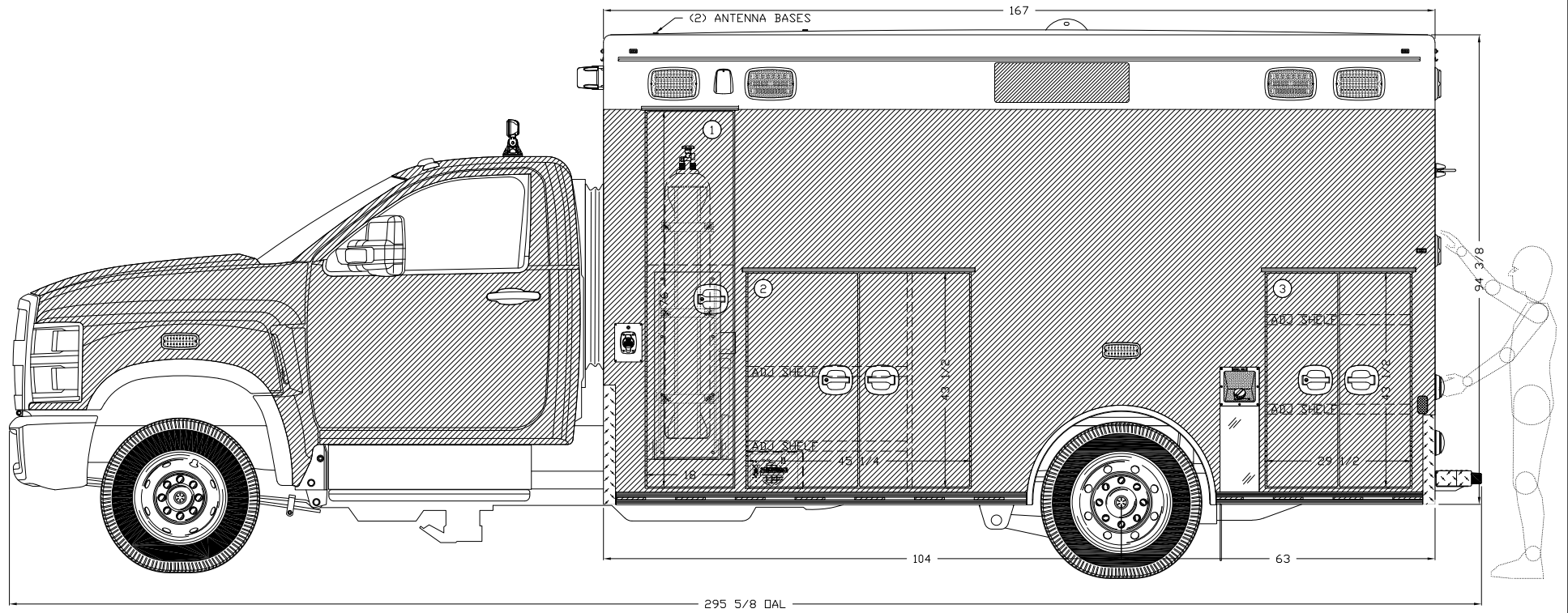
1. Two NMO antennas w/mounts Received 11-9-21
2. One GPS antenna 11-9-21
3. One Motorola with two radio heads, transceiver, two speakers and two deck bars 11-9-21
4. Cabling and power supply for radios 11-9-21



<b>Braun Northwest, Inc.</b>			
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Client	HUNTINGTON BEACH		
Date	09/23/2021	Drawing By	R.L.B.

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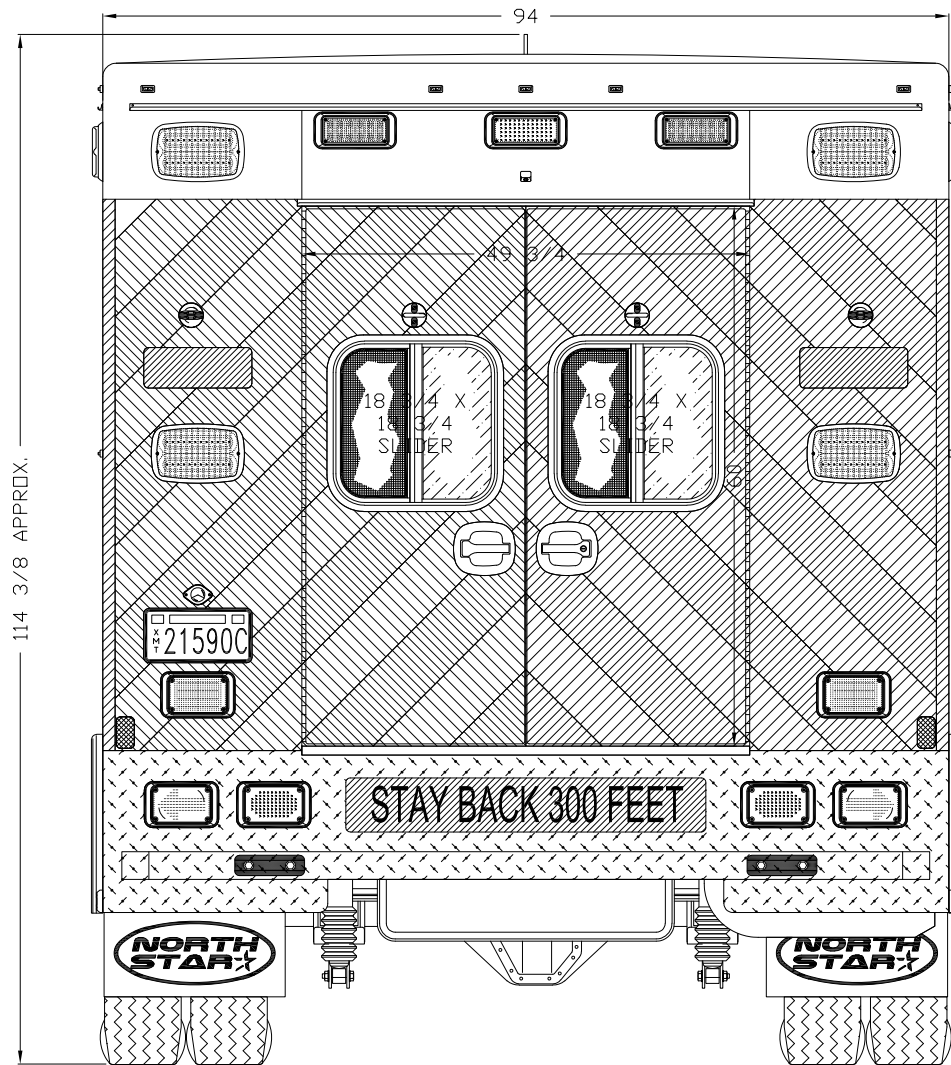
EXTERIOR S/S VIEW



### Braun Northwest, Inc.

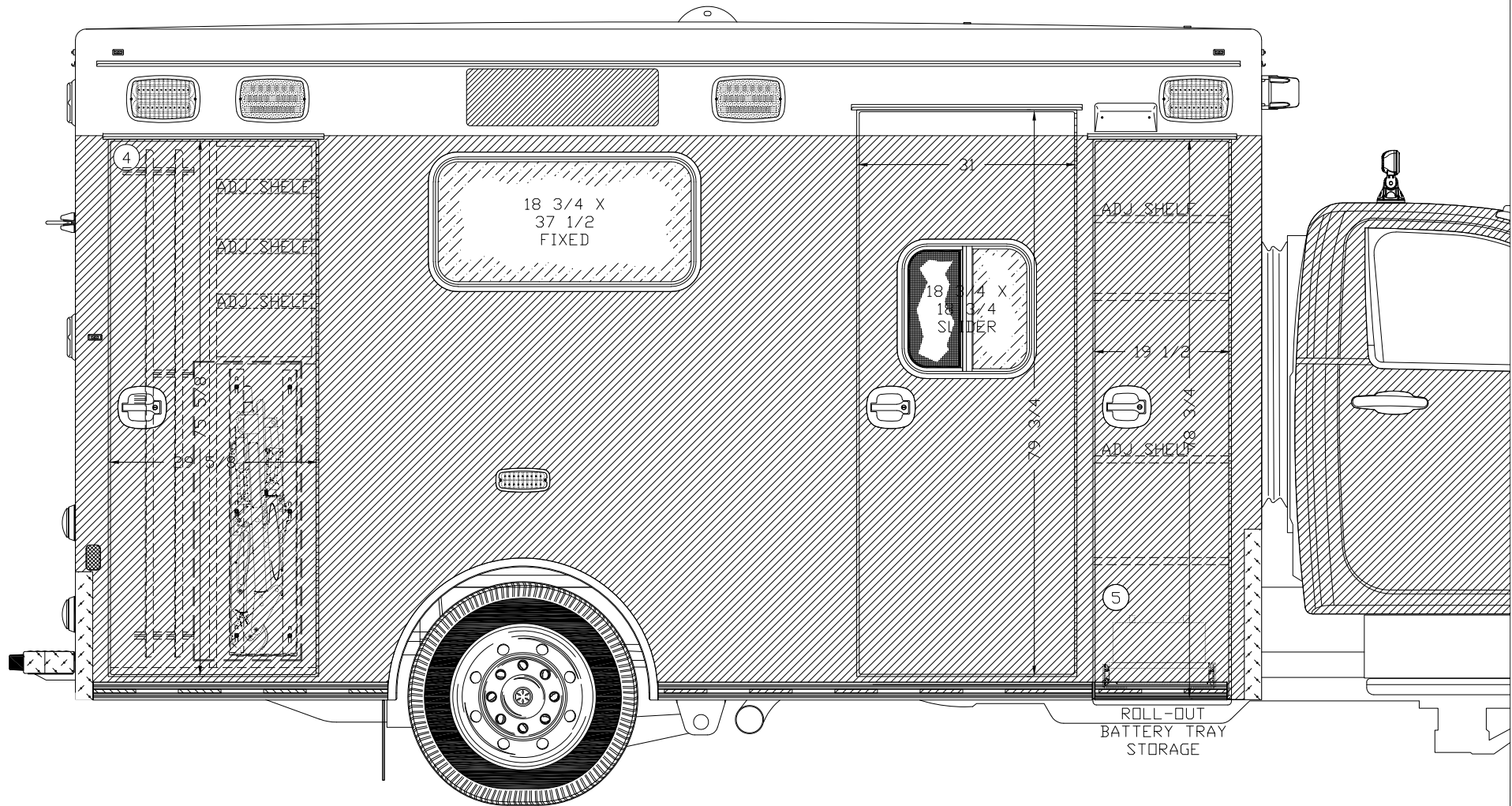
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Client	HUNTINGTON BEACH	
Date	09/23/2021	Drawing By R.L.B.

TITLE: EXTERIOR S/S VIEW



TITLE: EXTERIOR REAR VIEW

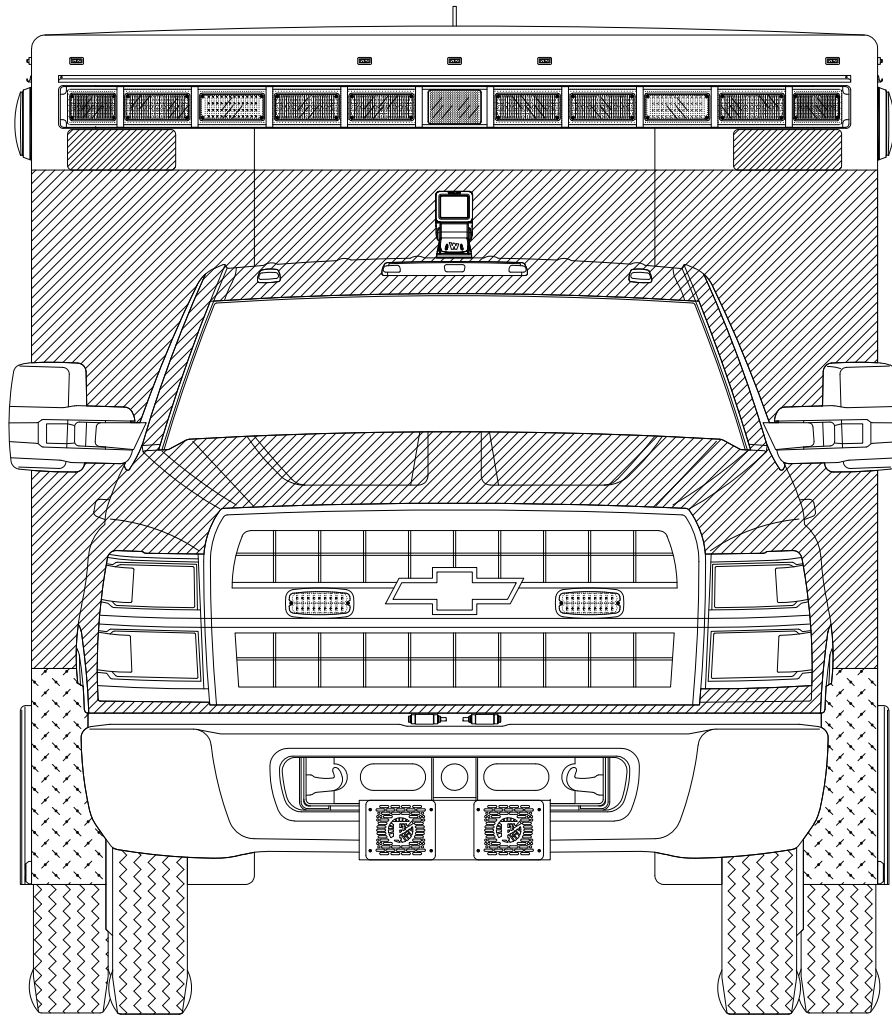
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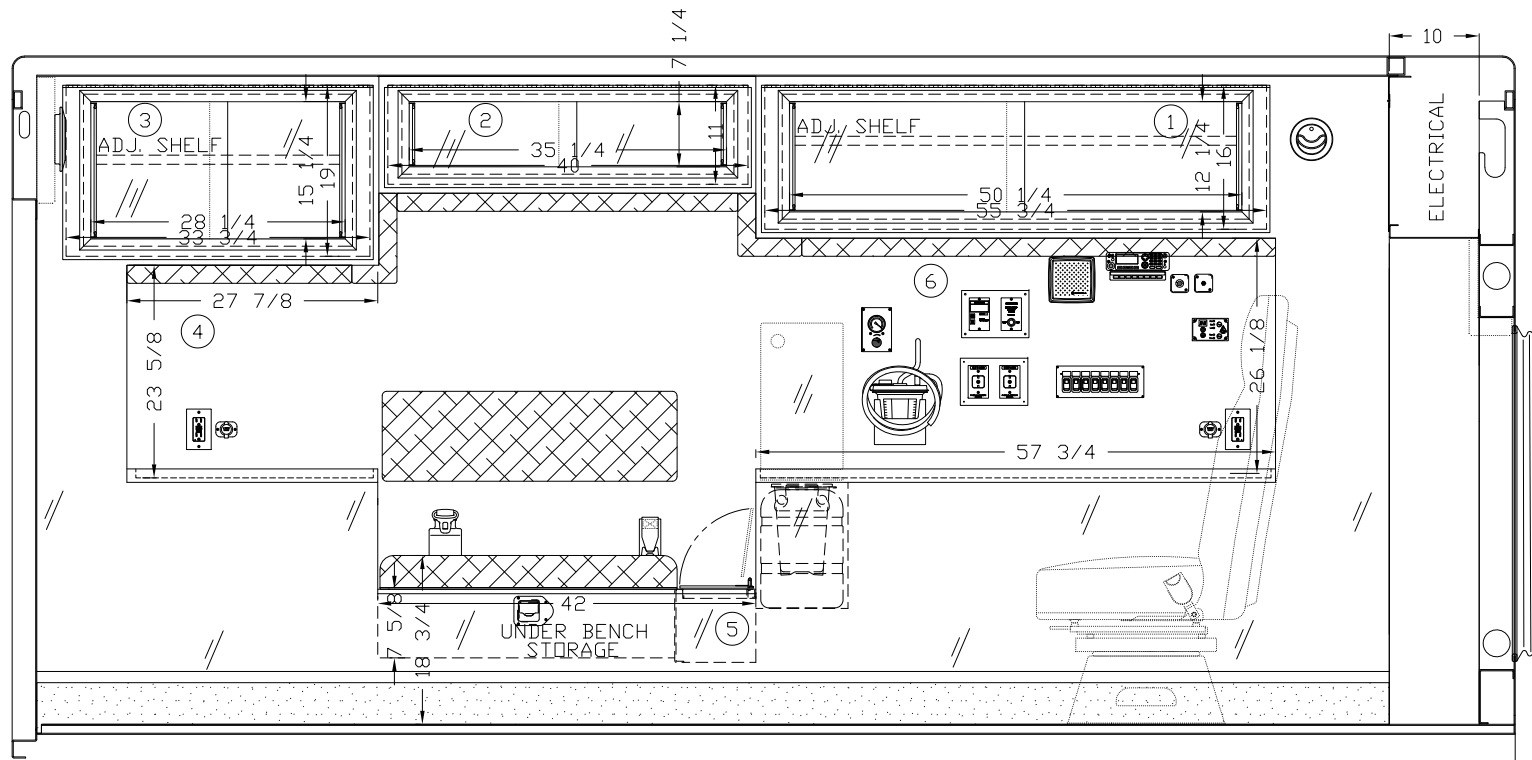
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<b>Braun Northwest, Inc.</b>			
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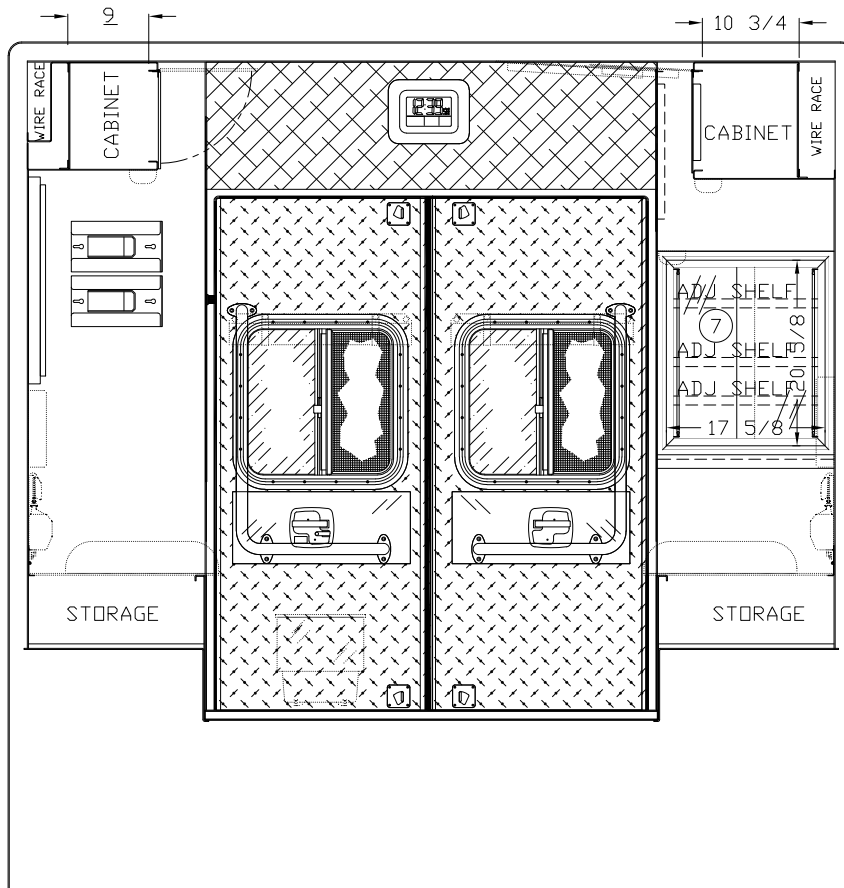
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EXTERIOR FRONT VIEW



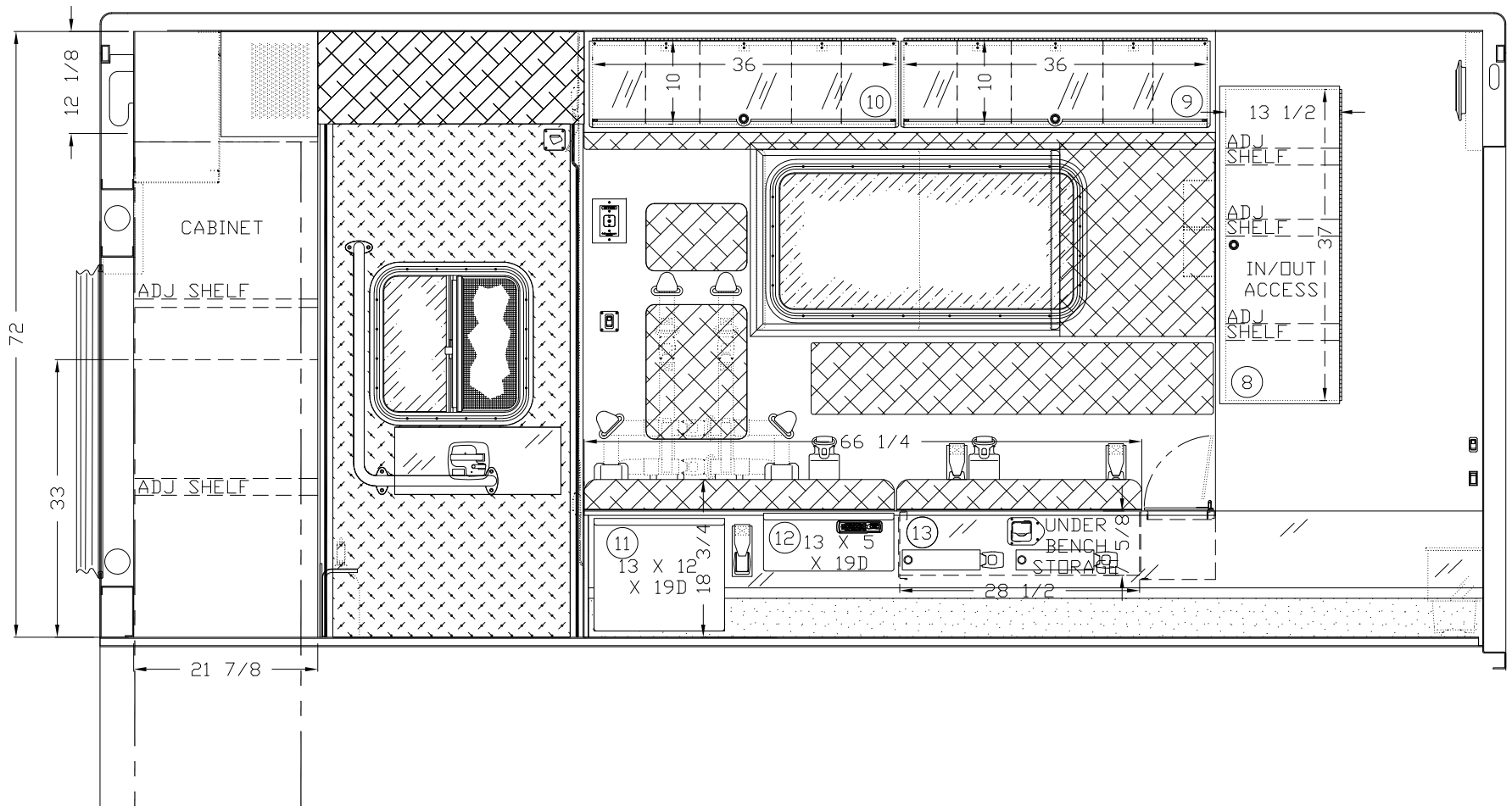
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Client	HUNTINGTON BEACH		
Date	09/23/2021	Drawing By	R.L.B.

TITLE: INTERIOR S/S VIEW



<b>Braun Northwest, Inc.</b>			
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Client	HUNTINGTON BEACH		
Date	09/23/2021	Drawing By	R.L.B.

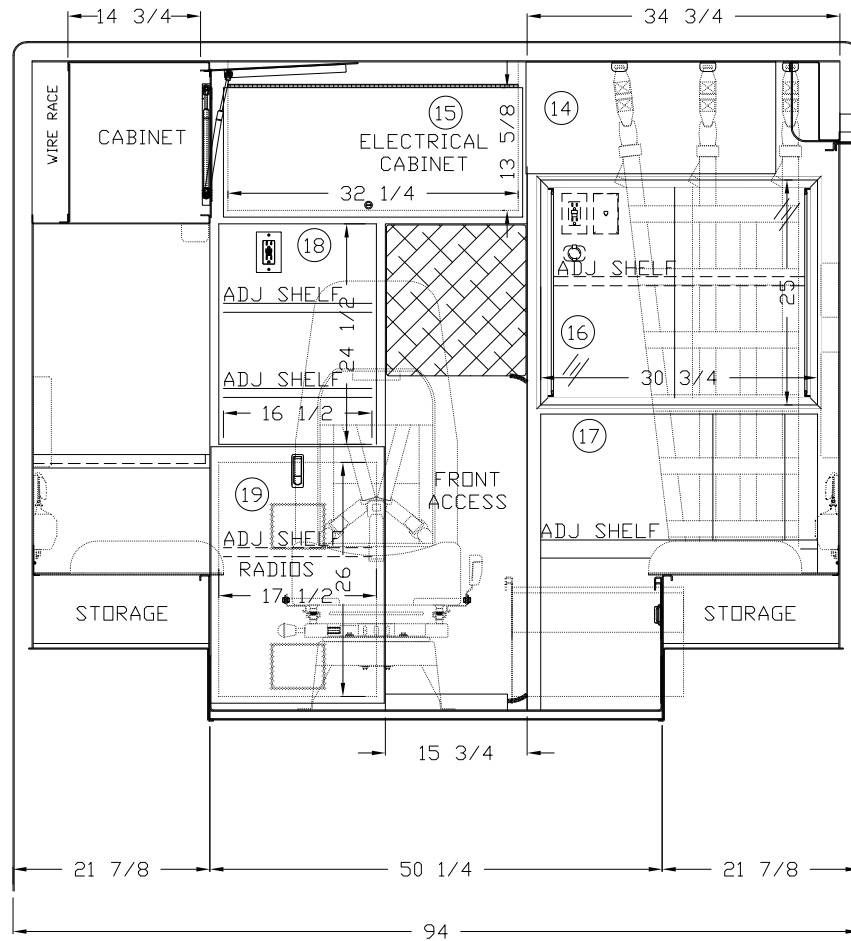
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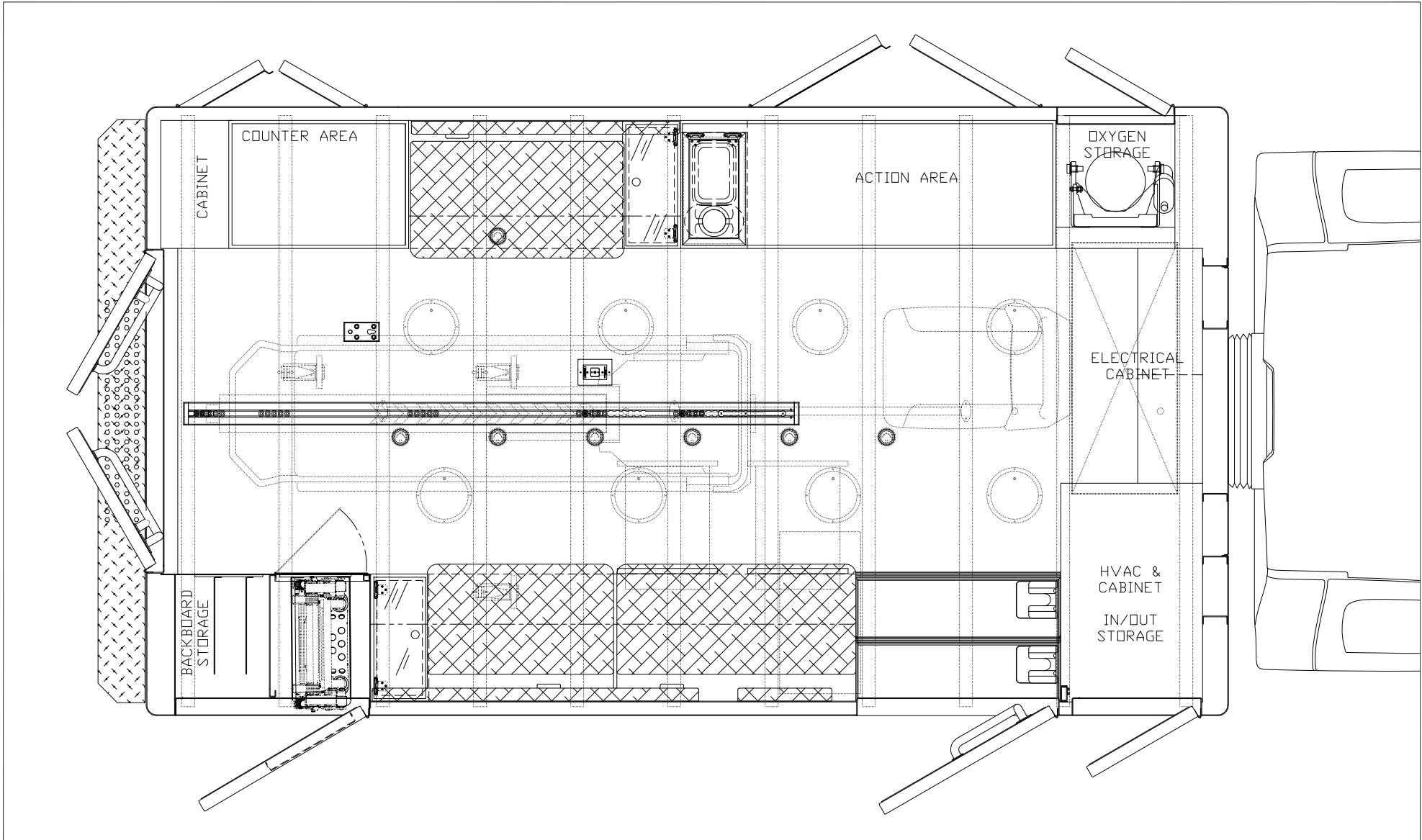
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Date	09/23/2021	Drawing By R.L.B.

TITLE: INTERIOR C/S VIEW



<b>Braun Northwest, Inc.</b>			
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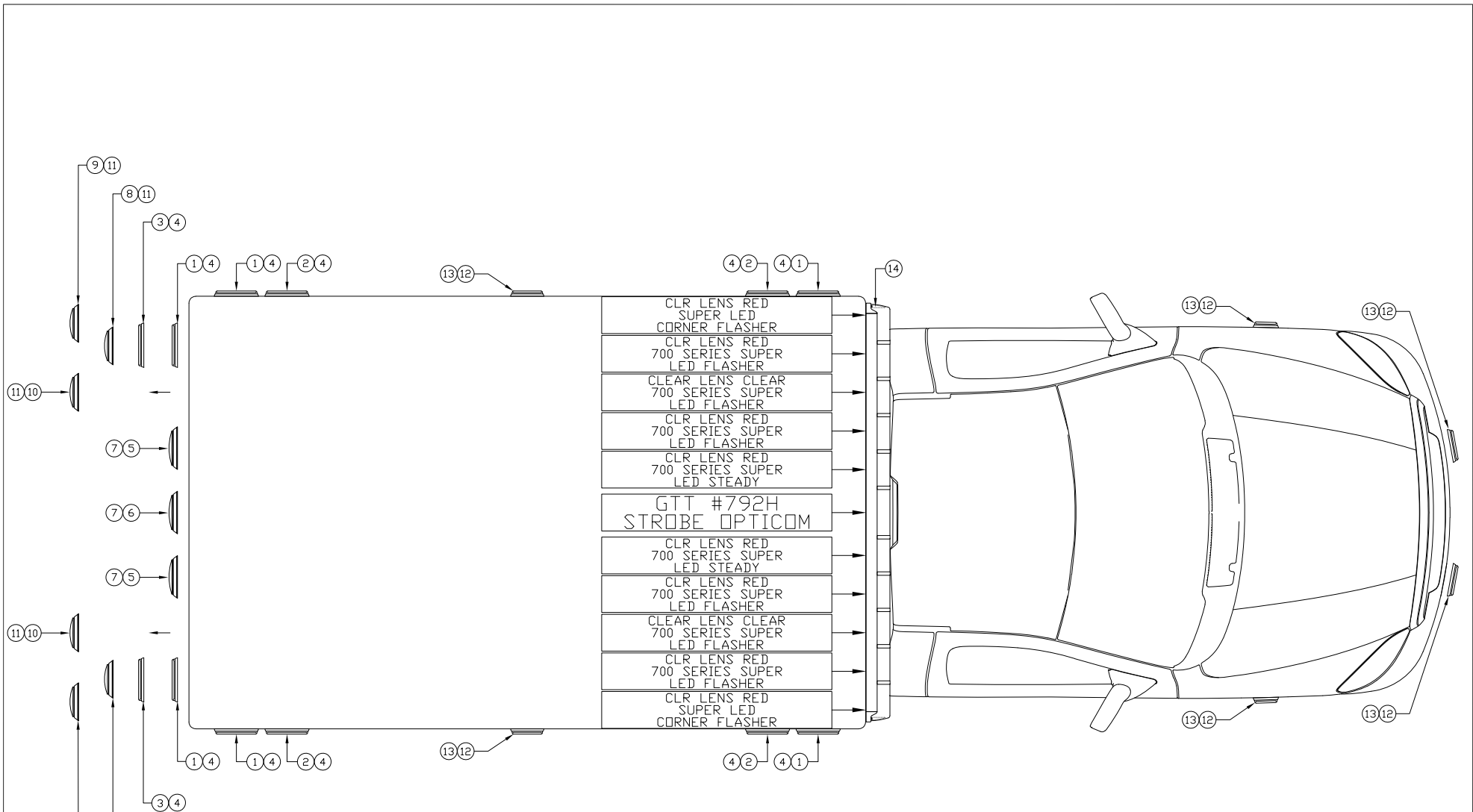
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<b>Braun Northwest, Inc.</b>			
Department	SALES	Rev	
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Client	HUNTINGTON BEACH		
Date	09/23/2021	Drawing By	R.L.B.

TITLE:

PLAN VIEW



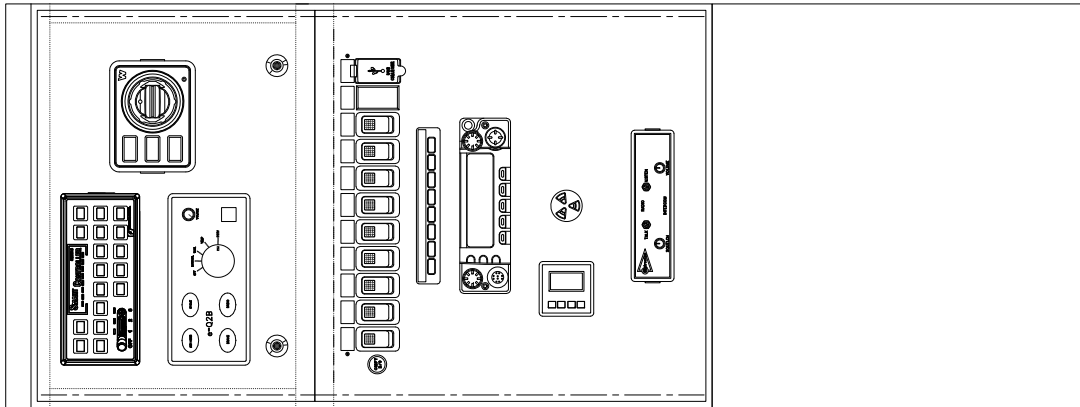
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8	WHELEN #60C00VCR LED BACK-UP LIGHT	2
7	WHELEN #7EFLANGE CHROME FLANGE	3
6	WHELEN #70BTT RED LENS RED LED BRAKELIGHT	1
5	WHELEN #7SC0ENZR SUPER LED LOAD LIGHT	2
4	WHELEN #M9FC CHROME FLANGE	12
3	WHELEN #M9AC CLEAR LENS AMB SUPER LED	2
2	WHELEN #M9LZC SUPER-LED SCENE LIGHTS	4
1	WHELEN #M9RC, CLEAR LENS RED SUPER LED	6

TAG	DESCRIPTION	QTY	TAG	DESCRIPTION	QTY
14	WHELEN 88" 4500 PLUS LIGHTBAR	1	6	WHELEN #70BTT RED LENS RED LED BRAKELIGHT	1
	CLR/CLR/CLR/CLR/CLR/OPT/CLR/CLR/CLR/CLR/CLR		5	WHELEN #7SC0ENZR SUPER LED LOAD LIGHT	2
13	WHELEN #M7FC CHROME FLANGE	6	4	WHELEN #M9FC CHROME FLANGE	12
12	WHELEN #M7RC CLR LENS RED LED FLSHR	6	3	WHELEN #M9AC CLEAR LENS AMB SUPER LED	2
11	WHELEN 6EFLANGE CHROME FLANGE	6	2	WHELEN #M9LZC SUPER-LED SCENE LIGHTS	4
10	WHELEN #60BTT LED STOP/TAIL/TURN LIGHT	2	1	WHELEN #M9RC, CLEAR LENS RED SUPER LED	6

**Braun Northwest, Inc.**

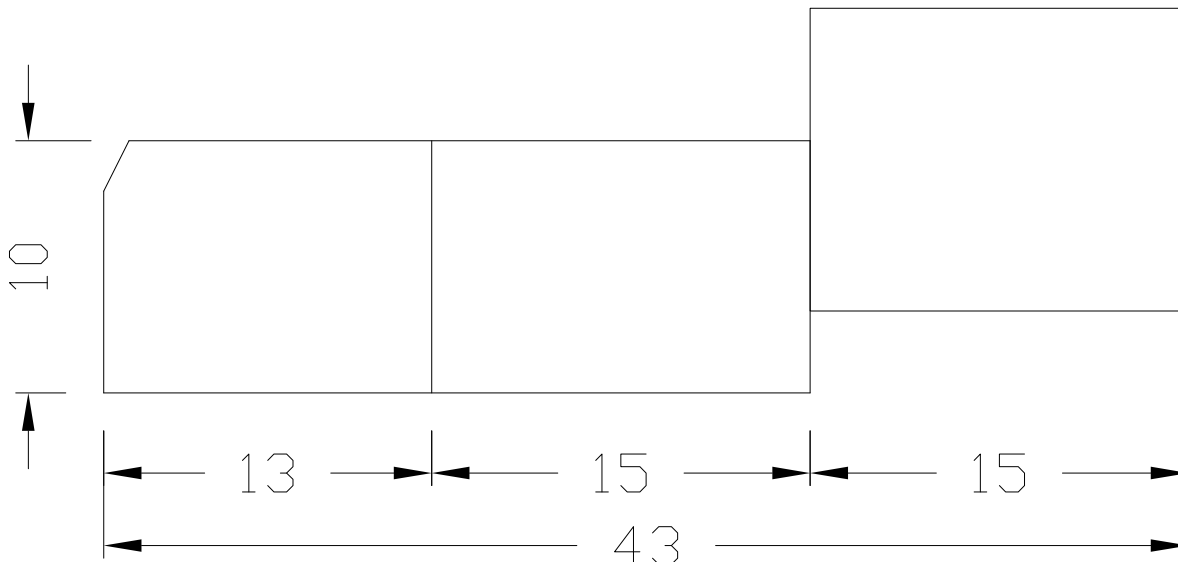
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Date	09/23/2021	Drawing By
		R.L.B.

TITLE: EMERGENCY LIGHT LAYOUT



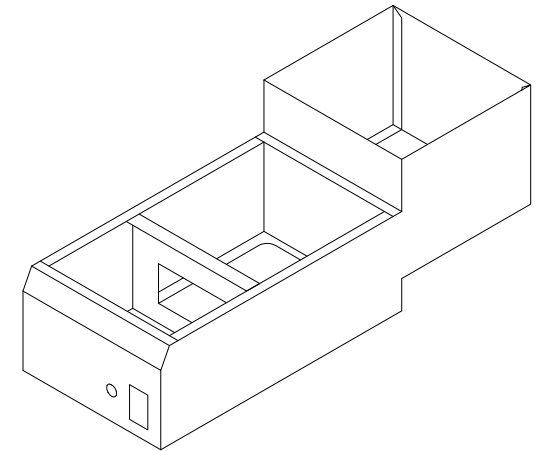
16

TOP VIEW



12

SIDE VIEW



<b>Braun Northwest, Inc.</b>			
Department	FABRICATION	Rev	
Dwg. Name	3332_CONSOLE		
Client	HUNTINGTON BEACH		
Date	09/23/2021	Drawing By	R.L.B.

TITLE: DRIVER'S CONSOLE APPROVAL