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ALTERNATE SOURCE WATER TREATMENT, LAUNDROMAT, SCIU SYSTEMS

CONTAINERIZED LAUNDROMAT

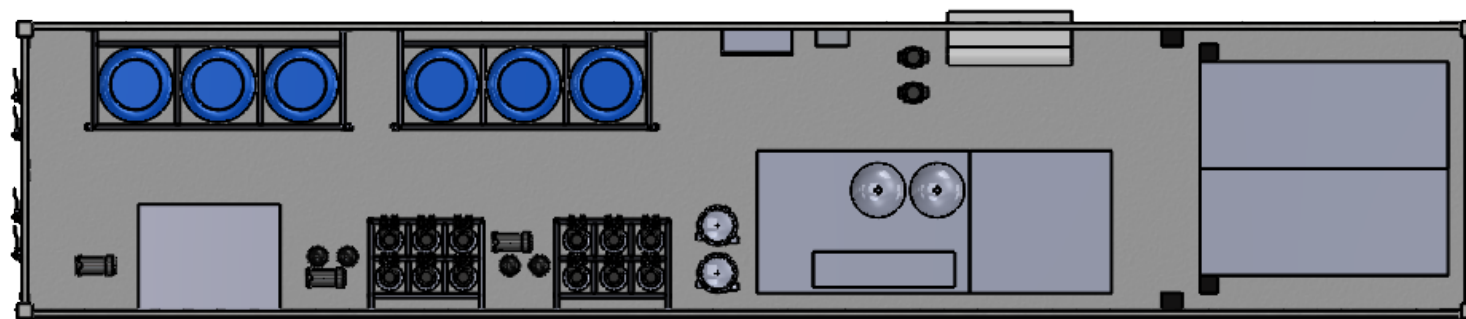


SELF CONTAINED ISOLATION UNIT (SCIU) SUBLETTE COUNTY, WY



RAINWATER HARVEST SYSTEM FT. BUCHANAN, PUERTO RICO

ALTERNATE SOURCE WATER HARVEST SYSTEM



1. INTERPERET DIMENSIONS AND TOLERANCES IN ACCORDANCE WITH ASME Y14.5.
2. ALL INFORMATION CONTAINED IN THIS DRAWING IS PROPERTY OF ESI. ANY REPRODUCTION, IN PART OR WHOLE, WITHOUT WRITTEN PERMISSION FROM ESI IS PROHIBITED.

Drawn By	HK	Date	2/1/21	ENVIREMEDIAL SERVICES INC. 64 RUNWAY LANE, PINEDALE, WY, 82941				
Approved By	GK	Date	2/1/21					
Coating				Title ALASKA WATER SOLUTION				
Weight	20,000 LB , EA			Size	Drawing No.	Rev		
Material	VARIOUS			B	Alaska Treatment Plan	A		
				Scale	1:65	Projection	THIRD	1 of 17

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80 KW DIESEL GENERATOR	12

1. SEE SHEET 1 FOR NOTES.

Rev A	Drawing No. Alaska Treatment Plan
Scale 1:40	Projection 2 of 17

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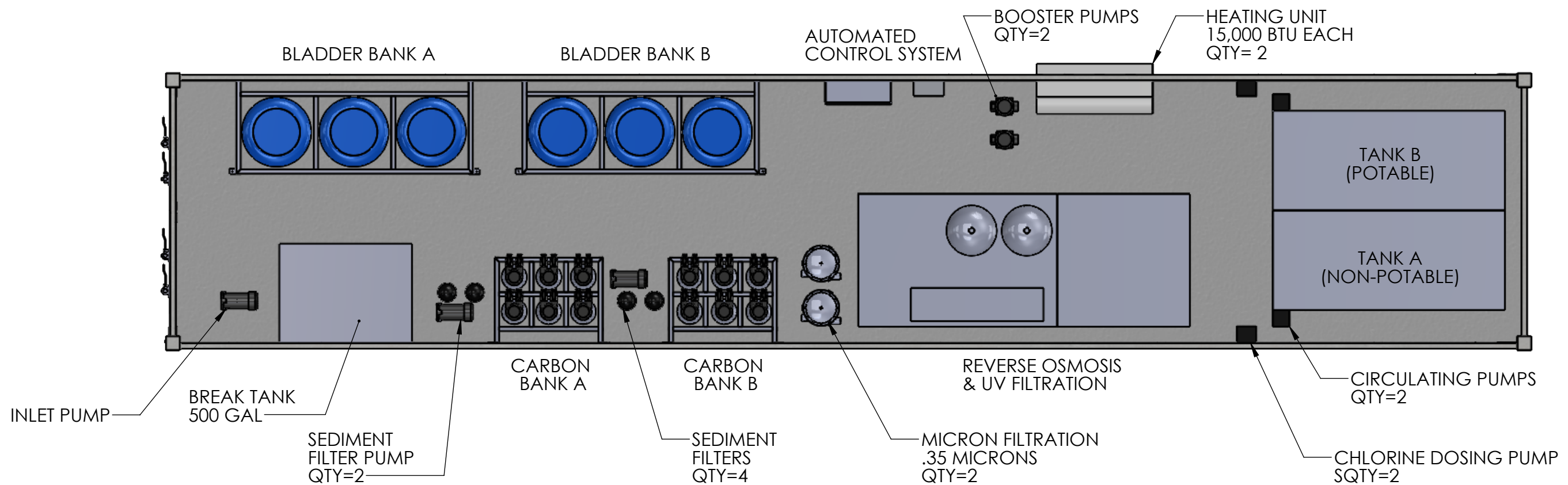
ALTERNATE SOURCE WATER HARVEST CONTAINER DETAILED BREAKOUT

THE ALTERNATE WATER HARVEST CONTAINER IS ESSENTIALLY TWO INDEPENDENT TREATMENT SYSTEMS HOUSED IN ONE CONTAINER, FILTRATION SYSTEMS A & B.

FILTRATION SYSTEM A WILL FEED THE CONTAINERIZED LAUNDROMAT. WATER IS DRAWN INTO THE CONTAINER FROM THE ALTERNATE WATER SOURCE AND IS RUN THROUGH A SEDIMENT REMOVAL SYSTEM (<20 MICRONS), A BANK OF CARBON FILTERS TO MITIGATE ORGANIC MATERIAL CONTAMINANTS AND FINALLY THROUGH A .35 MICRON ABSOLUTE FILTER. THE WATER STORED IN TANK A, WHICH IS DOSED WITH SODIUM HYPOCHLORITE (.2 TO 2.5 MG/L ADJUSTABLE) AND CIRCULATED CONTINUOUSLY TO DISINFECTION IN THE TANK. WHEN THE CONTAINERIZED LAUNDROMAT REQUIRES WATER, THE WATER FROM TANK A IS PRESSURIZED VIA VERTICAL BOOSTER PUMPS AND BLADDER TANKS, AND PIPED DIRECTLY TO THE OTHER CONTAINER.

NOTE: WATER FROM TANK A IS NOT TO BE CONSIDERED POTABLE.

FILTRATION SYSTEM B WILL SUPPLY POTABLE WATER. FILTRATION SYSTEM B RUNS THROUGH THE FIRST THREE STAGES OF SYSTEM A (SEDIMENT REMOVAL, CARBON FILTERS AND .35 MICRON FILTER). IN ADDITION TO THESE FIRST THREE METHODS OF FILTRATION, SYSTEM B'S WATER WILL BE RUN THROUGH A REVERSE OSMOSIS SYSTEM EQUIPPED WITH UV DISINFECTION TO TREAT THE WATER UP TO POTABLE STANDARDS. ONCE THE WATER HAS COMPLETED THE FILTRATION PROCESS, IT WILL BE ROUTED TO TANK B, WHERE IT WILL BE CIRCULATED AND DOSED WITH SODIUM HYPOCHLORITE (.5 TO 1.5 MG/L ADJUSTABLE). TANK B WILL FEED BLADDER BANK B, WHICH WILL THEN BE ROUTED TO A DISTRIBUTION SYSTEM SUCH AS SPIGOTS, HOSES OR CITY PIPING (IF POSSIBLE).



1. SEE SHEET 1 FOR NOTES.

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A	Alaska Treatment Plan		
Scale	1:40	Projection	4 of 17

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ALTERNATE WATER HARVEST SPECIFICATION SCHEDULE

COMPONENT	SPECIFICATIONS
ISO CONTAINER	40 OR 45 FOOT ISO HI-CUBE
CONTAINER R-FACTOR	R-25 TOP, SIDES AND BOTTOM
INTERIOR SHEETING	3/4" OSB, SEALED WITH A WATER BASED PAINT. FLOOR IS COATED WITH AN EPOXY FINISH
DISK FILTERS (SEDIMENT REMOVAL)	50PGM, 20 MIRCONS
CARBON FILTERS	20 GPM, 1.5 CF
MICRON FILTRATION	.35 MICRONS
REVERSE OSMOSIS SYSTEM	20,000 GPD WITH INTEGRATED UV DISINFECTION
SODIUM HYPOCHLORITE	POTABLE: .5 TO 1.5 MG/L
HOLDING TANKS A AND B	1000 GAL, DOUBLE-WALL POLYPROPELYNE TANK (EACH)
INLET BREAK TANK	500 GAL POLYPROPELYNE TANK
BLADDER TANKS	115 GAL, 100 PSI WORKING PRESURE
INLET PUMPS	60GPM, 120 PSI MAX
BOOSTER PUMPS	22 GPM, 110 PSI (MAX WORKING PRESSURE)
DOSING PUMPS	17PGD/100PSI
CIRCULATING PUMPS	1/8HP, 14GPM
HVAC UNITS	15,000 BTU (EACH) HEATING AND COOLING
GENERATOR	80 KW GENERATOR, FUEL TBD BASED ON AVAILABILITY

1. SEE SHEET 1 FOR NOTES.

Rev	Drawing No.	Alaska Treatment Plan
A		
Scale	1:40	Projection
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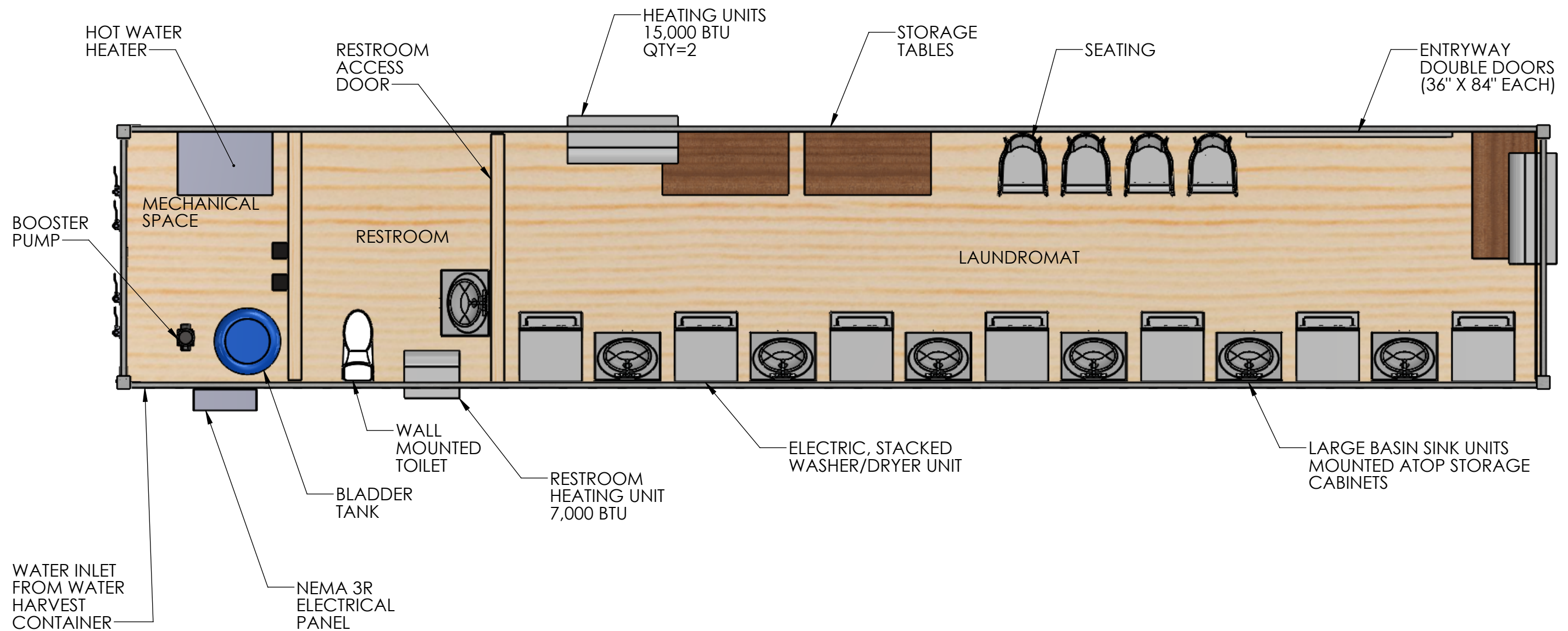
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CONTAINERIZED LAUNDROMAT DETAILED BREAKOUT

THE CONTAINERIZED LAUNDROMAT WILL HOUSE 6 OR 7 STACKABLE WASHER/DRYER UNITS, A 45 FOOT ISO CONTAINER, OR A 40 FOOT ISO CONTAINER DEPENDING ON AMOUNT OF UNITS REQUIRED. LARGE BASIN SINKS WILL BE LOCATED BETWEEN EACH WASHER/DRYER UNIT. THE UNIT WILL HAVE A SINGLE RESTROOM LOCATED AT ONE END, EQUIPPED WITH AN IN-WALL TOILET UNIT, A SINK, AND A HEATING UNIT FOR THAT SPACE. A MECHANICAL SPACE WILL BE LOCATED ON ONE END TO HOUSE THE WATER HEATER, BLADDER TANKS AND CIRCULATION PUMPS.



1. SEE SHEET 1 FOR NOTES.

Rev	Drawing No.	
A	Alaska Treatment Plan	
Scale	1:40	Projection
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CONTAINERIZED LAUNDROMAT SPECIFICATION SCHEDULE

COMPONENT	SPECIFICATION
CONTAINER	40 OR 45 FOOT ISO HI-CUBE CONTAINER
CONATINER R-FACTOR	R-25 TOP, SIDES AND BOTTOM
INTERIOR SHEETING	3/4" OSB, SEALED WITH A WATER BASED PAINT. FLOOR IS COATED WITH AN EPOXY FINISH
HOT WATER HEATER	120 GAL, ELECTRIC, 25GPH RECOVERY
BLADDER TANK	115 GAL, 100 PSI WORKING PRESURE
VERTICAL BOOSTER PUMP	22 GPM, 110 PSI (MAX WORKING PRESSURE)
STACKED WASHER/DRYER UNIT	ELECTRIC, 3.8 CU FT WASHER, 5.9 CU FT DRYER
HVAC UNIT	15,000 BTUH, 240V, SINGLE PHASE
RESTROOM HVAC	7,000 BTUH, 120V, SINGLE PHASE

1. SEE SHEET 1 FOR NOTES.

Rev	Drawing No.		
A	Alaska Treatment Plan		
Scale	1:40	Projection	7 of 17

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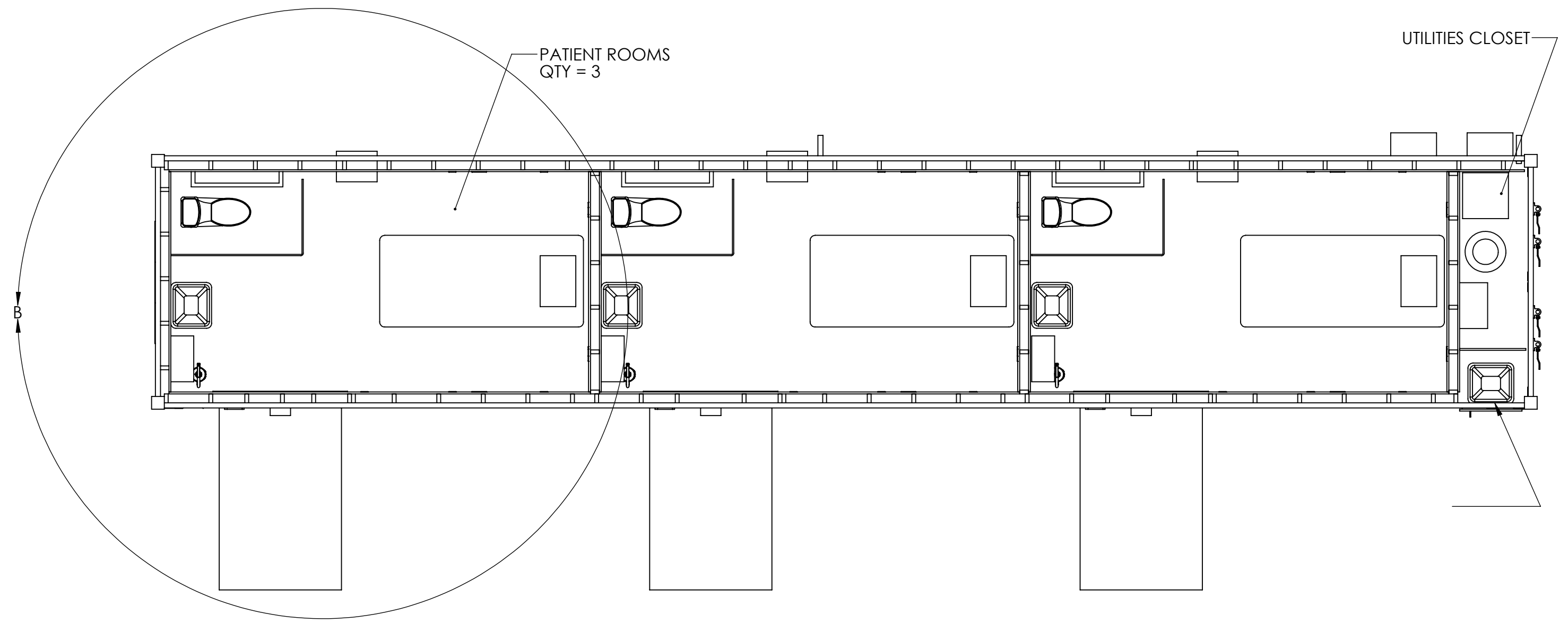
3-ROOM MEDICAL ISOLATION UNIT: CONTAINER FLOOR PLAN

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ESI'S CONTAINERIZED MEDICAL ISOLATION UNIT CONSISTS OF 3 SEPARATE PATIENT ROOMS AND A UTILITIES CLOSET, HOUSED IN A 45 FOOT SHIPPING CONTAINER. THE UNIT CAN BE CONFIGURED TO HOOK UP TO CITY WATER, SEWER AND POWER OR RUN AS A STANDALONE UNIT WITH TANK STORAGE AND A SOLAR PACKAGE. BOTH OPTIONS ARE FEATURED IN THIS DRAWING.

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1. SEE SHEET 1 FOR NOTES.

Rev	Drawing No.		
A		Containerized Med Unit	
Scale	1:40	Projection	
			8 of 17

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45' CONTAINER CONSTRUCTION: SPECIFICATIONS

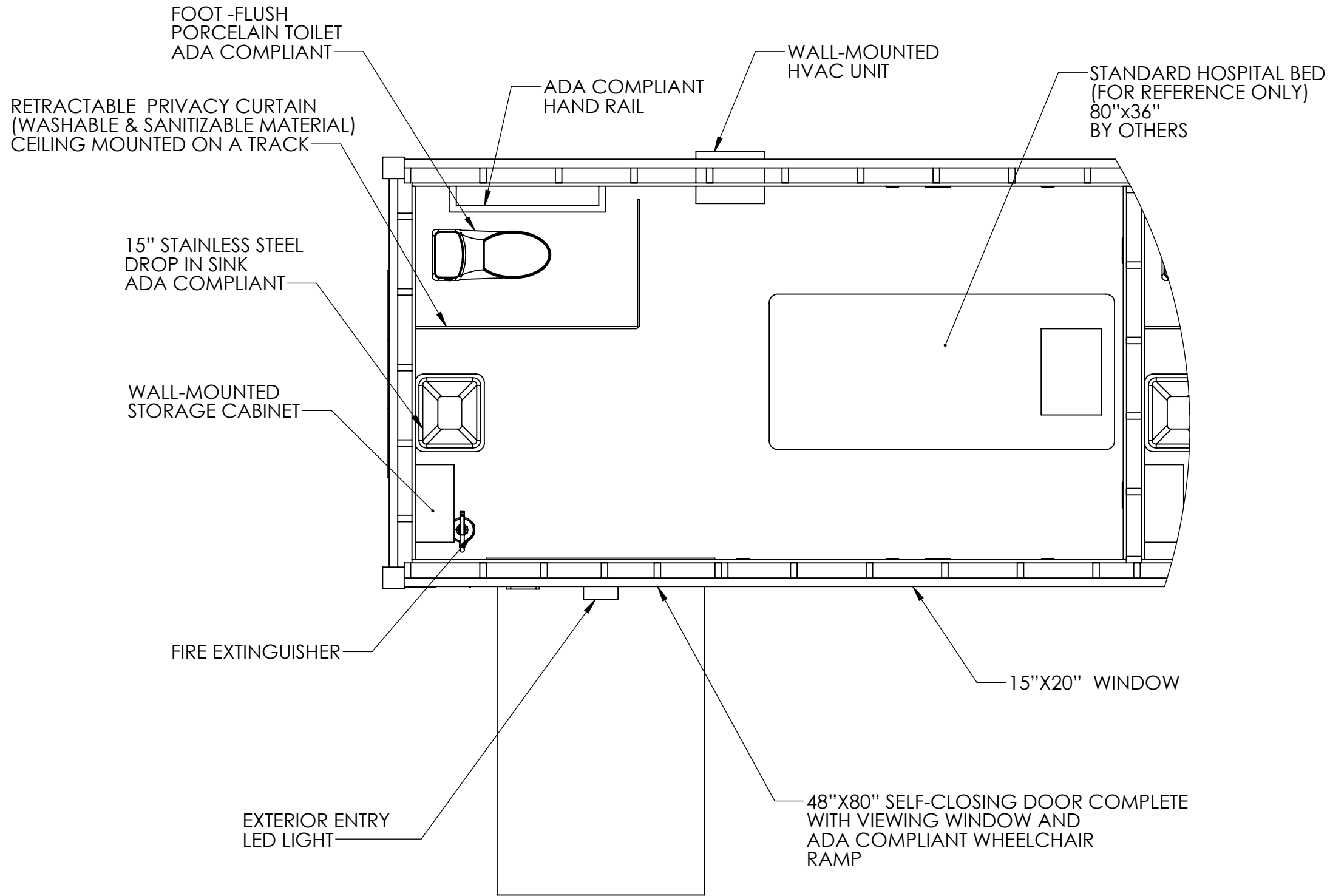
COMPONENT	STANDARD	SPECIFICATION (IF APPLICABLE)
45' ISO HIGH CUBE CONTAINER	ISO 1496-1	45' X 8' X 9.5'
2X4" STUDDED WALLS		FRAMED 16" ON CENTER
1.5" FOAM BOARD INSULATION	ASTM 578, UL CLASSIFICATION 197	THERMAL RESISTANCE R=7.5
HUNG SHEETROCK INTERIOR	ASTM C-1396	5/8" MOLD GUARD TOUGH ROCK
SANI-WALL MEDICAL GRADE DRYWALL FINISHER	CHEMICAL RESISTANCE-ASTM D-1308 7 DAY EXPOSURE FLAMMABILITY- ASTM D-635	
EMT CONDUIT & FITTINGS	UL	
THHN WIRE	UL	OIL/WATER RESISTANT
2" ABS DRAIN, WASTE, AND VENT PIPE	ASTM D-2661	BLACK ABS
1" POTABLE WATER LINES	ASTM F877-20	PEX
1" BRAISED COPPER OXYGEN LINES	ASTM B-75	STREAMLINED COPPER TUBING (UNS C12200 GRADE)
48"80" STEEL, HYDRAULIC SELF-CLOSING DOORS	FEDERAL STANDARD*	
DUAL CAPACITY HVAC UNIT	UL	5000BTU/HR, 200SQFT RATED
INSTANTANEOUS WATER HEATER	ETL	11 GPM AT 45° RISE. 199,000BTUH
20 GAL PRESSURE TANK	NSF, ISO 9001	
NEMA 3R ELECTRICAL PANEL BOARD	UL 508A	RATED FOR OUTDOORS, WATERPROOF
1 PHASE, POWER HOOKUP	UL	240/120V, 100 AMP, 60HZ

* = FEDERAL STANDARD AS DIRECTED BY THE UNITED STATES ARMY CORPS OF ENGINEERS BUILD SPECIFICATIONS FOR A2HC CONTAINERIZED UNITS.

1. SEE SHEET 1 FOR NOTES.

Rev	Drawing No.	
A	Containerized Med Unit	
Scale	1:40	Projection
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PATIENT ISOLATION ROOM: FLOOR PLAN



NOTE: EACH ROOM WILL BE OUTFITTED WITH
A DIMMABLE OVERHEAD LED LIGHT ON
3-WAY SWITCH.

COMPONENT	SPECIFICATION
ROOM SQ FOOTAGE	100.4 SQFT
ROOM LENGTH	13.625 FT
ROOM WIDTH	7.25 FT
DOOR HEIGHT	80 INCHES
DOOR WIDTH	48 INCHES
WINDOW HEIGHT	20 INCHES
WINDOW WIDTH	15 INCHES

1. SEE SHEET 1 FOR NOTES.

Rev	Drawing No.	
A	Containerized Med Unit	
Scale	1:40	Projection
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PATIENT ISOLATION ROOM: SPECIFICATIONS

COMPONENT	QUANTITY	STANDARD	SPECIFICATION (IF APPLICABLE)
QUAD RECEPTICLE OUTLETS	4	FEDERAL STANDARD*	
DUPLEX RECEPTICLE OUTLETS	6	FEDERAL STANDARD*	
DEDICATED CIRCUIT OUTLET (SINGLE)	1	FEDERAL STANDARD*	DENOTED BY ORANGE COVER
ABC FIRE EXTINGUISHER	1	FEDERAL STANDARD*	5 LB
15" STAINLESS STEEL SINK	1	ADA COMPLIANT	
GOOSENECK FAUCET W PADDLE HANDLES	1	ADA COMPLIANT	
PORCELAIN FOOT FLUSH TOILET	1	ADA COMPLIANT	LOW FLOW
COMMUNE HAND RAIL	1	ADA COMPLIANT	
DUAL CAPABILITY HVAC UNIT W REMOTE	1	FEDERAL STANDARD*	5000 BTU/HR, 200 SQFT RATED, 100 CFM
EXHAUST FAN W HEPA FILTRATION	1	FEDERAL STANDARD*	250 CFM TO CREATE NEGATIVE PRESSURE
OXYGEN LINE COMPATIBLE HOOKUP	YES	FEDERAL STANDARD*	BRAISED COPPER LINE
HEATED WATER	YES	FEDERAL STANDARD*	11 GPM
4.8° WHEELCHAIR RAMP	YES	ADA COMPLIANT	4.8° INCLINE, 1 FOOT LENGTH/INCH RISE
48"X79" PATIENT RM DOORWAY	YES	FEDERAL STANDARD*	SELF-CLOSING
100 SQFT PATIENT RM	YES	FEDERAL STANDARD*	13.625FT X 7.25 FT
DIMMABLE LED ROOM LIGHTING	YES	FEDERAL STANDARD*	4FT, 50 WATT DIMMABLE , VAPOR TIGHT LED
EXTERIOR ENTRY LIGHT	YES	FEDERAL STANDARD*	50 WATT BRONZE LED, 6800 LUMENS
SANITIZABLE, WASHABLE FLOORING	YES	FEDERAL STANDARD*	SEAMLESS LINOLIUM
SANITIZABLE, WASHABLE WALLS & CEILING	YES	FEDERAL STANDARD*	SANI-WALL DRYWALL FINISHER
COMPLETE ISOLATION FROM ADJOINING ROOMS	YES	FEDERAL STANDARD*	SILICON SEALS ON FLOOR, CEILING, AND ADJOINING WALLS

* = FEDERAL STANDARD AS DIRECTED BY THE UNITED STATES ARMY CORPS OF ENGINEERS BUILD SPECIFICATIONS FOR A2HC CONTAINERIZED UNITS.

1. SEE SHEET 1 FOR NOTES.

Rev	Drawing No.		
A	Containerized Med Unit		
Scale	1:40	Projection	11 of 17

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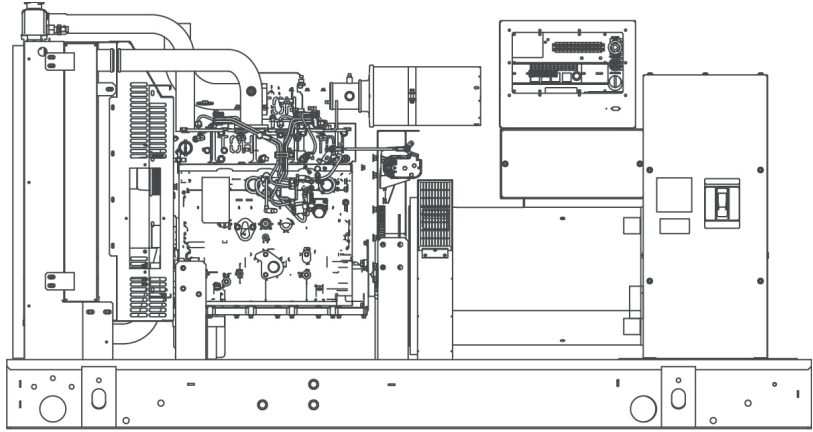
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STANDBY POWER RATING

80 kW, 100 kVA, 60 Hz

PRIME POWER RATING*

72 kW, 90 kVA, 60 Hz



*Built in the USA using domestic and foreign parts

*EPA Certified Prime ratings are not available in the U.S. or its Territories.


Image used for illustration purposes only

**Certain options or customization may not hold certification valid.


CODES AND STANDARDS

Generac products are designed to the following standards:

 UL2200, UL508, UL142, UL498

 NFPA70, 99, 110, 37

 NEC700, 701, 702, 708

 ISO9001, 8528, 3046, 7637, Pluses #2b, 4

 NEMA ICS10, MG1, 250, ICS6, AB1

 **ANSI**
 American National Standards Institute
 ANSI C62.41

POWERING AHEAD

For over 50 years, Generac has led the industry with innovative design and superior manufacturing.

Generac ensures superior quality by designing and manufacturing most of its generator components, including alternators, enclosures and base tanks, control systems and communications software.

Generac's gensets utilize a wide variety of options, configurations and arrangements, allowing us to meet the standby power needs of practically every application.

Generac searched globally to ensure the most reliable engines power our generators. We choose only engines that have already been proven in heavy-duty industrial application under adverse conditions.

Generac is committed to ensuring our customers' service support continues after their generator purchase.

STANDARD FEATURES

ENGINE SYSTEM

General

- Oil Drain Extension
- Air Cleaner
- Fan Guard
- Stainless Steel flexible exhaust connection
- Critical Exhaust Silencer (enclosed only)
- Factory Filled Oil
- Radiator Duct Adapter (open set only)

Fuel System

- Fuel lockoff solenoid
- Primary fuel filter

Cooling System

- Closed Coolant Recovery System
- UV/Ozone resistant hoses
- Factory-Installed Radiator
- Radiator Drain Extension
- 50/50 Ethylene glycol antifreeze
- 120 VAC Coolant Heater

Engine Electrical System

- Battery charging alternator
- Battery cables
- Battery tray
- Solenoid activated starter motor
- Rubber-booted engine electrical connections

ALTERNATOR SYSTEM

- UL2200 GENprotect™
- 12 leads (3-phase, non 600 V)
- Class H insulation material
- Vented rotor
- 2/3 pitch
- Skewed stator
- Auxiliary voltage regulator power winding
- Amortisseur winding
- Brushless Excitation
- Sealed Bearings
- Automated manufacturing (winding, insertion, lacing, varnishing)
- Rotor dynamically spin balanced
- Full load capacity alternator
- Protective thermal switch

GENERATOR SET

- Internal Genset Vibration Isolation
- Separation of circuits - high/low voltage
- Separation of circuits - multiple breakers
- Silencer Heat Shield
- Wrapped Exhaust Piping
- Silencer housed in discharge hood (enclosed only)
- Standard Factory Testing
- 2 Year Limited Warranty (Standby rated Units)
- 1 Year Limited Warranty (Prime rated Units)
- Silencer mounted in the discharge hood (enclosed only)

ENCLOSURE (IF SELECTED)

- Rust-proof fasteners with nylon washers to protect finish
- High performance sound-absorbing material
- Gasketed doors
- Stamped air-intake louvers
- Air discharge hoods for radiator-upward pointing
- Stainless steel lift off door hinges
- Stainless steel lockable handles
- Rhino Coat™ - Textured polyester powder coat

TANKS (IF SELECTED)

- UL 142
- Double wall
- Vents
- Sloped top
- Sloped bottom
- Factory pressure tested (2 psi)
- Rupture basin alarm
- Fuel level
- Check valve in supply and return lines
- Rhino Coat™ - Textured polyester powder coat
- Stainless hardware

CONTROL SYSTEM



Control Panel

- Digital H Control Panel - Dual 4x20 Display
- Programmable Crank Limiter
- 7-Day Programmable Exerciser
- Special Applications Programmable PLC
- RS-232/485
- All-Phase Sensing DVR
- Full System Status
- Utility Monitoring
- Low Fuel Pressure Indication
- 2-Wire Start Compatible
- Power Output (kW)

- Power Factor
- kW Hours, Total & Last Run
- Real/Reactive/Apparent Power
- All Phase AC Voltage
- All Phase Currents
- Oil Pressure
- Coolant Temperature
- Coolant Level
- Engine Speed
- Battery Voltage
- Frequency
- Date/Time Fault History (Event Log)
- Isochronous Governor Control
- Waterproof/sealed Connectors
- Audible Alarms and Shutdowns
- Not in Auto (Flashing Light)
- Auto/Off/Manual Switch
- E-Stop (Red Mushroom-Type)
- NFPA110 Level I and II (Programmable)
- Customizable Alarms, Warnings, and Events
- Modbus protocol
- Predictive Maintenance algorithm
- Sealed Boards
- Password parameter adjustment protection

- Single point ground
- 15 channel data logging
- 0.2 msec high speed data logging
- Alarm information automatically comes up on the display

Alarms

- Oil Pressure (Pre-programmable Low Pressure Shutdown)
- Coolant Temperature (Pre-programmed High Temp Shutdown)
- Coolant Level (Pre-programmed Low Level Shutdown)
- Low Fuel Pressure Alarm
- Engine Speed (Pre-programmed Over speed Shutdown)
- Battery Voltage Warning
- Alarms & warnings time and date stamped
- Alarms & warnings for transient and steady state conditions
- Snap shots of key operation parameters during alarms & warnings
- Alarms and warnings spelled out (no alarm codes)

CONFIGURABLE OPTIONS

ENGINE SYSTEM

General

- Oil Heater
- Industrial Exhaust Silencer

Fuel System

- Flexible fuel lines
- Primary fuel filter

Engine Electrical System

- 10A UL battery charger
- 2.5A UL battery charger
- Battery Warmer

ALTERNATOR SYSTEM

- Alternator Upsizing
- Anti-Condensation Heater
- Tropical coating
- Permanent Magnet Excitation

CIRCUIT BREAKER OPTIONS

- Main Line Circuit Breaker
- 2nd Main Line Circuit Breaker
- Shunt Trip and Auxiliary Contact
- Electronic Trip Breaker

GENERATOR SET

- Gen-Link Communications Software (English Only)
- IBC Seismic Certification
- 8 Position Load Center
- 2 Year Extended Warranty
- 5 Year Warranty
- 5 Year Extended Warranty

ENCLOSURE

- Weather Protected
- Level 1 Sound Attenuation
- Level 2 Sound Attenuation
- Steel Enclosure
- Aluminum Enclosure
- 150 MPH Wind Kit
- 12 VDC Enclosure Lighting Kit
- 120 VAC Enclosure Lighting Kit
- AC/DC Enclosure Lighting Kit
- Door Alarm Switch

TANKS (Size on last page)

- Electrical Fuel Level
- Mechanical Fuel Level
- 8" Fill Extension
- 13" Fill Extension
- 19" Fill Extension

CONTROL SYSTEM

- 21-Light Remote Annunciator
- Remote Relay Panel (8 or 16)
- Oil Temperature Sender with Indication Alarm
- Remote E-Stop (Break Glass-Type, Surface Mount)
- Remote E-Stop (Red Mushroom-Type, Surface Mount)
- Remote E-Stop (Red Mushroom-Type, Flush Mount)
- Remote Communication - Modem
- Remote Communication - Ethernet
- 10A Run Relay
- Ground Fault Indication and Protection Functions

ENGINEERED OPTIONS

ENGINE SYSTEM

- Coolant heater ball valves
- Block Heaters
- Fluid containment pans

ALTERNATOR SYSTEM

- 3rd Breaker Systems

CONTROL SYSTEM

- Spare inputs (x4) / outputs (x4) - H Panel Only
- Battery Disconnect Switch

GENERATOR SET

- Special Testing

ENCLOSURE

- Motorized Dampers
- Door switched for intrusion alert
- Enclosure ambient heaters

TANKS

- Overfill Protection Valve
- UL2085 Tank
- ULC S-601 Tank
- Stainless Steel Tank
- Special Fuel Tanks (MIDEQ and FL DEP/DERM, etc.)
- Vent Extensions

RATING DEFINITIONS

Standby - Applicable for a varying emergency load for the duration of a utility power outage with no overload capability.

Prime - Applicable for supplying power to a varying load in lieu of utility for an unlimited amount of running time. A 10% overload capacity is available for 1 out of every 12 hours. The Prime Power option is only available on International applications. Power ratings in accordance with ISO 8528-1, Second Edition

SD080 | 4.5L | 80 kW

INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency

APPLICATION AND ENGINEERING DATA

ENGINE SPECIFICATIONS

General

Make	Iveco/FPT
EPA Emissions Compliance	Stationary Emergency
EPA Emissions Reference	See Emissions Data Sheet
Cylinder #	4
Type	In-Line
Displacement - L (cu In)	4.5 (274.6)
Bore - mm (in)	105 (4.1)
Stroke - mm (in)	132 (5.2)
Compression Ratio	17.5:1
Intake Air Method	Turbocharged/Aftercooled
Cylinder Head Type	2 Valve
Piston Type	Aluminium
Crankshaft Type	Forged Steel

Engine Governing

Governor	Electronic Isochronous
Frequency Regulation (Steady State)	+/- 0.25%

Lubrication System

Oil Pump Type	Gear
Oil Filter Type	Full Flow
Crankcase Capacity - L (qts)	13.6 (14.4)

Cooling System

Cooling System Type	Closed
Water Pump	Belt Driven Centrifugal
Fan Type	Pusher
Fan Speed (rpm)	2538
Fan Diameter mm (in)	660.4 (26)
Coolant Heater Wattage	1500
Coolant Heater Standard Voltage	120 V /240 V

Fuel System

Fuel Type	Ultra Low Sulfur Diesel Fuel
Fuel Specifications	ASTM
Fuel Filtering (microns)	5
Fuel Injection	Stanadyne
Fuel Pump Type	Engine Driven Gear
Injector Type	Mechanical
Fuel Supply Line mm (in)	12.7 (0.5) NPT
Fuel Return Line mm (in)	12.7 (0.5) NPT

Engine Electrical System

System Voltage	12 VDC
Battery Charging Alternator	20 A
Battery Size	See Battery Index 0161970SBY
Battery Voltage	12 VDC
Ground Polarity	Negative

ALTERNATOR SPECIFICATIONS

Standard Model	390
Poles	4
Field Type	Revolving
Insulation Class - Rotor	H
Insulation Class - Stator	H
Total Harmonic Distortion	<3%
Telephone Interference Factor (TIF)	<50

Standard Excitation	Synchronous Brushless
Bearings	One-Pre Lubed & Sealed
Coupling	Direct, Flexible Disc
Load Capacity - Standby	100%
Prototype Short Circuit Test	Yes
Voltage Regulator Type	Digital
Number of Sensed Phases	3
Regulation Accuracy (Steady State)	± 0.25%

OPERATING DATA

POWER RATINGS

		Standby
Single-Phase 120/240 VAC @1.0pf	80 kW	Amps: 333
Three-Phase 120/208 VAC @0.8pf	80 kW	Amps: 278
Three-Phase 120/240 VAC @0.8pf	80 kW	Amps: 241
Three-Phase 277/480 VAC @0.8pf	80 kW	Amps: 120
Three-Phase 346/600 VAC @0.8pf	80 kW	Amps: 96

STARTING CAPABILITIES (sKVA)

		sKVA vs. Voltage Dip											
		480 VAC						208/240 VAC					
Alternator	kW	10%	15%	20%	25%	30%	35%	10%	15%	20%	25%	30%	35%
Standard	80	59	88	117	147	176	205	44	66	88	110	132	154
Upsize 1	100	79	118	157	197	236	275	59	89	118	148	177	206
Upsize 2	130	116	174	232	290	348	406	87	131	174	218	261	305

FUEL CONSUMPTION RATES*

		Diesel - gal/hr (l/hr)	
Fuel Pump Lift - ft (m)		Percent Load	Standby
3 (1)		25%	2.1 (7.9)
		50%	3.7 (14.0)
Total Fuel Pump Flow (Combustion + Return)		75%	5.2 (19.7)
13.6 gal/hr		100%	6.3 (23.8)

* Fuel supply installation must accommodate fuel consumption rates at 100% load.

COOLING

		Standby
Coolant Flow per Minute	gal/min (l/min)	32.7 (123.8)
Coolant System Capacity	gal (L)	4.5 (17.44)
Heat Rejection to Coolant	BTU/hr	232,270
Inlet Air	cfm (m³/hr)	6360 (180)
Max. Operating Radiator Air Temp	F° (C°)	122 (50)
Max. Ambient Temperature (before derate)	F° (C°)	104 (40)
Maximum Radiator Backpressure	in H ₂ O	0.5

COMBUSTION AIR REQUIREMENTS

		Standby
Flow at Rated Power	cfm (m³/min)	306 (8.67)

ENGINE

		Standby
Rated Engine Speed	rpm	1800
Horsepower at Rated kW**	hp	131
Piston Speed	ft/min (m/min)	1559 (475)
BMEP	psi	210

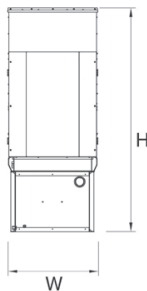
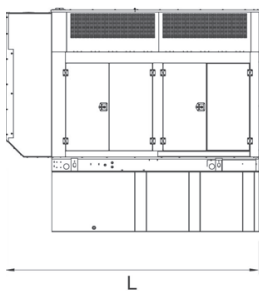
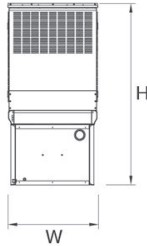
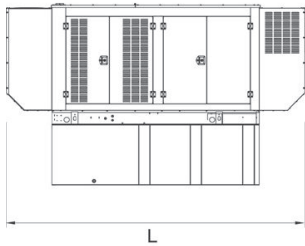
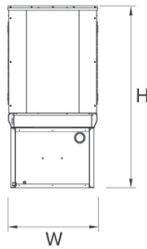
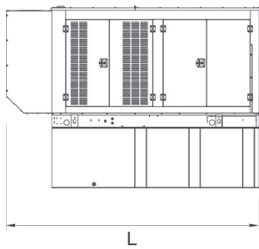
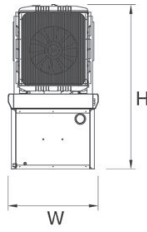
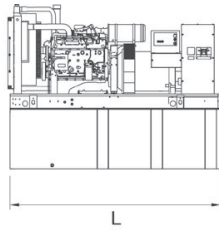
EXHAUST

		Standby
Exhaust Flow (Rated Output)	cfm (m³/min)	782 (22.14)
Max. Backpressure (Post Silencer)	inHg (Kpa)	1.5 (5.1)
Exhaust Temp (Rated Output)	°F (°C)	887 (475)
Exhaust Outlet Size (Open Set)	mm (in)	76.2 (3.0)

** Refer to "Emissions Data Sheet" for maximum bHP for EPA and SCAQMD permitting purposes.

Deration – Operational characteristics consider maximum ambient conditions. Derate factors may apply under atypical site conditions. Please consult a Generac Power Systems Industrial Dealer for additional details. All performance ratings in accordance with ISO3046, BS5514, ISO8528 and DIN6271 standards.

DIMENSIONS AND WEIGHTS*



YOUR FACTORY RECOGNIZED GENERAC INDUSTRIAL DEALER

OPEN SET

RUN TIME HOURS	USABLE CAPACITY GAL (L)	L x W x H in (mm)	WT lbs (kg) - Tank & Open Set	
			Steel	Aluminum
NO TANK	-	93 (2362.2) x 40 (1016) x 49 (1244.6)	2425 (1100)	
13	79 (299)	93 (2362.2) x 40 (1016) x 62 (1574.8)	2947 (1201)	
30	189 (715.4)	93 (2362.2) x 40 (1016) x 74 (1879.6)	3183 (1444)	
48	300 (1135.6)	93 (2362.2) x 40 (1016) x 86 (2184.4)	3407 (1545)	
56	350 (1325)	110 (2794) x 40 (1016) x 86 (2184.4)	NA	
81	510 (1930.5)	117 (2971.8) x 47 (1193.8) x 86 (2184.4)	3790 (1719)	
93	589 (2229.6)	128 (3251.2) x 49 (1244.6) x 86 (2184.4)	4269 (1936)	

STANDARD ENCLOSURE

RUN TIME HOURS	USABLE CAPACITY GAL (L)	L x W x H in (mm)	WT lbs (kg) - Enclosure Only	
			Steel	Aluminum
NO TANK	-	112 (2844.8) x 41 (1041.4) x 56 (1422.4)		
13	79 (299)	112 (2844.8) x 41 (1041.4) x 69 (1752.6)		
30	189 (715.4)	112 (2844.8) x 41 (1041.4) x 81 (2057.4)		
48	300 (1135.6)	112 (2844.8) x 41 (1041.4) x 93 (2362.2)	425 (193)	155 (70)
56	350 (1325)	112 (2844.8) x 41 (1041.4) x 93 (2362.2)		
81	510 (1930.5)	117 (2971.8) x 47 (1193.8) x 93 (2362.2)		
93	589 (2229.6)	128 (3251.2) x 49 (1244.6) x 93 (2362.2)		

LEVEL 1 ACOUSTIC ENCLOSURE

RUN TIME HOURS	USABLE CAPACITY GAL (L)	L x W x H in (mm)	WT lbs (kg) - Enclosure Only	
			Steel	Aluminum
NO TANK	-	130 (3302) x 41 (1041.4) x 56 (1422.4)		
13	79 (299)	130 (3302) x 41 (1041.4) x 69 (1752.6)		
30	189 (715.4)	130 (3302) x 41 (1041.4) x 81 (2057.4)		
48	300 (1135.6)	130 (3302) x 41 (1041.4) x 93 (2362.2)	450 (204)	285 (129)
56	350 (1325)	130 (3302) x 41 (1041.4) x 93 (2362.2)		
81	510 (1930.5)	130 (3302) x 47 (1193.8) x 93 (2362.2)		
93	589 (2229.6)	130 (3302) x 49 (1244.6) x 93 (2362.2)		

LEVEL 2 ACOUSTIC ENCLOSURE

RUN TIME HOURS	USABLE CAPACITY GAL (L)	L x W x H in (mm)	WT lbs (kg) - Enclosure Only	
			Steel	Aluminum
NO TANK	-	112 (2844.8) x 41 (1041.4) x 69 (1752.6)		
13	79 (299)	112 (2844.8) x 41 (1041.4) x 82 (2082.8)		
30	189 (715.4)	112 (2844.8) x 41 (1041.4) x 94 (2387.6)		
48	300 (1135.6)	112 (2844.8) x 41 (1041.4) x 106 (2692.4)	625 (284)	395 (180)
56	350 (1325)	112 (2844.8) x 41 (1041.4) x 106 (2692.4)		
81	510 (1930.5)	117 (2971.8) x 47 (1193.8) x 106 (2692.4)		
93	589 (2229.6)	128 (3251.2) x 49 (1244.6) x 106 (2692.4)		

*All measurements are approximate and for estimation purposes only. Sound dBA can be found on the sound data sheet. Enclosure Only weight is added to Tank & Open Set weight to determine total weight.

Specification characteristics may change without notice. Dimensions and weights are for preliminary purposes only. Please consult a Generac Power Systems Industrial Dealer for detailed installation drawings.