

# Site Planning Guide

## NEVADA HEALTH CENTERS Mammography Hologic Selenia Suite 462" L x 102" W x 162" H USA Unit



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# List of Revisions

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#### **Notice**

In accordance with our policy of continued product improvement, Oshkosh Specialty Vehicles reserves the right to make changes in the equipment, design, specifications, and materials of the product described herein. Any problems or questions related to the components or systems covered in this booklet may be directed to:

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# **Introduction**

The purpose of this document is to provide the basic information needed for site planning. For specific information not contained in this document, please contact Oshkosh Specialty Vehicles.

The mobile unit requires sufficient room to be maneuvered and positioned for setup and takedown. The mobile unit has many storage compartments and service doors that require access during these procedures as well as during operation. The wheel chair lift, entry stair and optional platform require additional space on each side of the mobile self-propelled unit. Refer to the drawings provided for actual locations of doors, wheel chair lift, and stair sizes and locations.

### Warnings & Safety Alert Conventions

The following terms define the various precautions and notices used in this manual:

Whenever information exists that requires additional emphasis beyond NOTE: the standard textual information, the term "NOTE" is used. The term "IMPORTANT" is used whenever information exists that requires IMPORTANT special attention to procedures to ensure proper operation of the equipment or to prevent its possible failure. The term "CAUTION" is used whenever potential damage to equipment CAUTION exists, requiring correct procedures / practices for prevention. The term "WARNING" is used whenever potential personal injury or death WARNING situations exist, requiring correct procedures / practices for prevention. The term "DANGER" is used whenever immediate hazards exist that could DANGER result in personal injury or death that cannot be eliminated by design safeguards. This safety alert symbol indicates important safety messages in the manual. When you see this symbol, carefully read the message that follows and be alert to the possibility of personal injury or death. Electrical, mechanical, pneumatic, and hydraulic safety devices have been installed on this vehicle to help protect against personal injury and / or damage to equipment. Under no circumstances should any attempt be made WARNING to disconnect or in any way render any of these devices inoperative. If a malfunction of any safety device is discovered to exist, DO NOT operate the vehicle, but immediately notify appropriate maintenance personnel.

Oshkosh Specialty vehicles shall have no liability with respect to: ..... REPAIRS IMPROPERLY PERFORMED OR REPLACEMENTS IMPROPERLY INSTALLED (or) USE OF REPLACEMENT PARTS OR ACCESSORIES NOT CONFORMING TO Oshkosh SPECIALTY VEHICLE'S SPECIFICATIONS, WHICH ADVERSELY AFFECT PERFORMANCE OR DURABILITY (or) ALTERATIONS OR MODIFICATIONS NOT RECOMMENDED OR APPROVED IN WRITING BY Oshkosh SPECIALTY VEHICLES (or) FOR EQUIPMENT DAMAGE OR PERSONAL INJURY OR DEATH AS A RESULT OF RENDERING ANY SAFETY DEVICE INOPERABLE.



Certain inherent risks are associated with heavy trailers due to the nature of their use. Personnel working in the area of these trailers are subject to certain hazards that cannot be met by mechanical means but only by the exercise of intelligence, care, and common sense. It is therefore essential for the owner of this equipment to have personnel involved in the use and operation of these trailers who are competent, careful, physically and mentally qualified, and trained in the safe operation of this equipment.



# **Support Pad Requirements**

The following is a list of recommendations and requirements for a concrete support pad.

Due to varying site conditions, the actual pad design should be prepared by an appropriately licensed structural or architectural engineer.

#### **Recommended Support Pad Requirements**

A full pad measuring 11'-11" x 32' is the recommended support pad. The cross hatching as shown on Figure 1: Pad Layout, Figure 2: Right Side Elevation, and Figure 3: Left Side Elevation represents the recommended support pad.

#### Support Pad Depth

Recommendations for the width and length of the pad are given above. Based upon the weight distribution of the mobile unit and existing site conditions, the depth should be determined by a local contractor.

#### Support Pad Levelness

In order to ensure proper operation of the system, the support pad(s) must be level and the deviation must not exceed 2-1/2" in 10'-0".

#### **Recommended Service Pad**

A full pad measuring 23'-4" x 46'-1/8" is the recommended service pad. This will allow full service access to the mobile unit. The recommended service pad is shown on Figure 1: Pad Layout, Figure 2: Right Side Elevation, and Figure 3: Left Side Elevation.

#### Vehicle Access

A firm, level surface is required around the mobile unit in order to provide access to the site, patient access to the mobile unit, and servicing of the mobile unit.

#### **Recommended Attachment to the Facility**

An inflatable air bag or soft seal is recommended at the point of connection from the unit to the facility. Fixed or solid connections may hinder imaging quality. Contact Oshkosh Specialty Vehicles or the local GE representative prior to construction if the proposed connection varies from the recommended.

#### Swing Clearance Note

Please verify the actual dimensions of the rearmost projections on the mobile unit to the centerline of tandem suspension. Refer to Figure 7: Turning Requirements for proper turning requirements.



### **Radiation Shielding**



Radiation exposure limits must be in accordance with all local, state, and federal requirements. It is the responsibility of the customer to perform a proper radiation survey in order to determine the exclusion zone.

Care should be taken when determining a site location. Factors such as shielding design, proximity to buildings, and occupancy of the surrounding areas must be considered. The mobile unit has been designed to provide radiation shielding for the areas adjacent to the procedure room. An exclusion zone around the mobile unit may be necessary. Please contact Oshkosh Specialty Vehicles for mobile unit specific shielding information.



# **Customer Power Requirements**



It is the operator's responsibility to verify that the shore power receptacle is electrically compatible with the mobile unit's power cable and connector prior to connecting to the shore power connection. Plugging into a receptacle not electrically compatible could cause serious injury or damage.



The standard connector for the unit is a Russellstoll DS2516MP000/DF2034, (208V AC). If an existing site currently implements a different connector or connector configuration, please contact Oshkosh Specialty Vehicles in order to arrange for a compatible power connector before the unit leaves the facility. Always inspect the power cable, connectors, and fasteners prior to usage. If during inspection, it is suspected that either internal or external damage has occurred, have a certified electrician inspect and repair the damage before using.



CAUTION

IMPORTANT

Follow the maintenance schedule in the Operator and Service Manual for safe operation of the mobile unit.

## Lockout/Tagout

A Lockout/Tagout provision in accordance with OSHA Standard 1910.147 is required. The facility shore power disconnect device must be located within 40'- 0" of the unit and must provide for an effective lockout/tagout to facilitate safe service and maintenance of the unit.

## **Electrical Service**

208V AC, three-phase, fused at 200 amps.

## **Configuration**

Three-phase Wye connection, four wire, with ground. ABC phase rotation.

### Load Regulation at Line Frequency

Wires are to be sized such that the line voltage drops from the power source to the mobile unit is less then 6% of the nominal voltage for the rated load of the mobile unit.

### **Frequency**

60Hz ±0.5Hz.

### Phase Balance

The phase balance is 2% maximum of lowest phase-to-phase voltage.

### Maximum Voltage Variation

The maximum voltage variation is  $\pm 2\%$  from a nominal steady state (under the worst case conditions of line voltage).

### Connector Type

The mobile unit is supplied with a 50'-0" power cable and male connector. Unless otherwise specified, the 208V AC connector type is a Russellstoll DS2516MP000/DF2034.



#### **Customer Facility**

The customer facility must have the matching receptacle as specified in <u>Figure 5: Russellstoll</u> <u>208V Service Outlet</u>, <u>Figure 6: Russellstoll 208V Chart</u>. Unless otherwise specified, the 208V AC receptacle type to be used is a Russellstoll DF2516FRAB0.

#### **Connector Notes**

The standard connector for the mobile unit is a Russellstoll. The mobile unit is configured for 208V AC service. Many existing mobile sites are set up for a variety of different mobile units that this mammography clinic could utilize. Review the different site configurations to determine the best location for the mammography clinic on these sites If an existing site currently implements a different connector, connector configuration, or the available power supply varies from the above specifications, please contact Oshkosh Specialty Vehicles to arrange for a compatible power connector before the mobile unit leaves the facility.

#### Voltage Surges

Transient voltage variations caused by external loads must not:

- Exceed ±5%.
- Exceed five cycles duration.
- Occur more then ten times an hour.

#### Power Source Monitoring (Facility Only)

#### NOTE: Perform a power audit first.

Use a power analyzer should be used to check the proposed Mobile GE Senographe Series facility site power for average line voltage, surges, sags, reclosures, impulses, frequency and microcuts. A period that includes two weekends should be used to measure several days of normal use. Analysis of the data and site history of any previous power problems with other X-ray systems or computer installations should be reviewed with your power and ground representative. Verify "brown-out" (low voltage) conditions, which may occur during summer months, will not exceed the allowable range.

Some analyzer models that are suitable for power monitoring are:

- Dranetz Model 658
- Dranetz Model 656A
- BMI 3630
- RPM



# **Mobile Grounding Requirements**

IMPORTANT	All work is to be done in accordance with the local and national electrical codes.
IMPORTANT	Information shown here is only a recommendation and must be verified with both local and national site codes.
IMPORTANT	Ground wires inside enclosures are to be taped green for the entire visual length for identification purposes.
IMPORTANT	If a separately derived, secondary system transformer is used, a bonding jumper between the grounded conductor (neutral) and the equipment – grounding conductor must be used.

#### **Special Ground Note**

The mobile unit must have an earth driven ground rod within 5'-0" of the facility power receptacle. A grounding cable of a minimum #1/0 AWG must be connected between the grounding rod and the grounding pin of the facility power receptacle. A separate grounding conductor must still be run with the phase conductors to the source of the power from the grounding pin of the hospital power receptacle in accordance with NEC 2002 Article 250-24.

If Generator Power is used, a cable, to be kept as short as possible, must also be connected between the ground stud on the Incoming Power Distribution Panel and an earth-driven ground rod.



# **Telephone Service Requirements**

### **Telephone Service**

The mobile unit is supplied with one (3) telephone connection. The connector type that is used is an RJ-45 with CAT-5E cable. The cable measures 50'-0" in length.

#### **Data Service**

The mobile unit is supplied with one (4) data line connection that utilizes an RJ-45 outlet.

The data line connections require a 50'-0" CAT-5E cable with RJ-45 connections.



# Water Requirements

### Fresh Water Supply Requirements

The mobile unit has a 40-gallon fresh water tank. They are supplied with a  $\frac{3}{4}$ " diameter, 20'-0" long hoses terminated with a  $\frac{3}{4}$ " female threaded hose connector located on the rear left side of the mobile unit. The facility must provide a  $\frac{3}{4}$ " male connector and a water supply that meets the following specifications:

- A flow rate of 5 gallons per minute.
- 45-60 PSI.
- A maximum temperature of 70°F.

### Water Tank Drain Connections

The mobile unit will be supplied with a <sup>3</sup>/<sub>4</sub>" diameter, 20'-0" long hose terminated with a <sup>3</sup>/<sub>4</sub>" male threaded hose connector located on the left side of the mobile unit for the grey waste water. The facility must provide means of water drainage from the system, which complies with all local applicable codes.

The mobile unit will be supplied with a 3" diameter, 10'-0" long standard RV type drain hose located on the left side of the mobile unit for the black waste water. The facility must provide means of water drainage from the system, which complies with all local applicable codes.







	PAD HATCH LEGEND	
MINIMUM SUPPORT PAD	RECOMMENDED SUPPORT PAD	RECOMMENDED SERVICE PAD
	Fig	ure 1: Pad Layout





#### **RIGHT SIDE ELEVATION**



Figure 2: Right Side Elevation





#### LEFT SIDE ELEVATION



Figure 3: Left Side Elevation







Figure 4: Rear Side Elevation





Figure 5: Russellstoll 208V Service Outlet



RUSSELLSTOLL RECEPTACLE CHART				
AMP / WIRE	DESCR	RIPTION	RECEPTACLE	
	WIRES	POLES	PART NUMBER	
MAXIMUM WIRE SIZE FOR LUG # 1/0	5	4	208 VOLT (200 AMP) 5 WIRE RUSSELLSTOLL RECEPTACLE #DF2516FRAB THIS RECEPTACLE MUST BE WATERPROOF	
208 VOLT AC DEDICATED POWER LINE FROM MAIN TRANSFORMER STATION	3Ø	WYE CONNECTION 150 AMP TOTAL 3Ø NEUTRAL AND GROUND		
RUSSELLSTOLL MATING PLUG PART# DS2516MP000 5 WIRE/4 POLE		MAIN DISCONNECT 3/N/PE AC 208 VOLT 150 AMP FUSED DISCONNECT		
RECEPTACLE AND INSTALLATION PROVIDED BY CUSTOMER				

Figure 6: Russellstoll 208V Chart





**Figure 7: Turning Requirements**