This BSL-2 Mobile Laboratory is designed to maintain containment and chain of custody of unknown hazardous samples. Operator safety is achieved through the integration of primary containment equipment and the use of secure sample transport devices (Rapid Transfer Ports - RTP).

**Class II BSC (Bio-hood)**
The laboratory is equipped with two Class II Biological Safety Cabinets (BSC). These Class II Type A2 BSCs are 600mm and 900mm in length. The 600mm Class II BSC is designed for PCR reagent preparation. Class II BSCs are manufactured by Germfree and designed for mobile applications, able to withstand the rigors of travel over harsh terrain.

**Rapid Transfer Port (RTP)**
RTPs are critical components in maintaining sample integrity and security while moving samples between primary containment devices within the laboratory as well as moving samples to other laboratories.
- Class III BSC (glovebox) is equipped with a 105mm RTP
- Class II BSC (bio-hood) 900mm is equipped with a 105mm RTP
Class III BSC (Glovebox)
The Class III Biological Safety Cabinet (BSC) is designed specifically for the safe receipt of unknown biological and chemical samples. The glovebox is provided with a chemical resistant coating along with a high containment filtration system with both HEPA and MIL-SPEC ASZM-TEDA Carbon filters. Items can be safely moved out of the glovebox via the RTP system. Samples can be introduced into the glovebox from the outside using a three-door airlock. The Class III BSC (glovebox) is also equipped with a top-mounted DVR camera for remote-reachback viewing of processes within containment and recording chain of custody.
Anteroom and Command Control Center

The anteroom provides a controlled entry and exit area into the laboratory. It houses the command center which includes:

- Administration work station
- Reach back communication (camera) equipment controls
- Communication equipment (customer supplied- Germfree installed)
- Electrical control panel
- Generator and inverter controls
- Server racks for data and satellite connections

Mechanical Electrical and Plumbing (MEP)

The MEP components installed in this laboratory were developed and tested under a Cooperative Research and Development Agreement (CRADA) with the Mobile Labs and Kits (ML&K) Team of the U.S. Army, Edgewood, Maryland.

**Electrical systems:**
- Two on board diesel generators
- Uninterrupted Power Supply (UPS) for critical components
- Laboratory Information Management System (LIMS) installed
- Server racks for data and satellite connections

**Plumbing Systems:**
- Hands free sink with infrared operation
- Fresh water holding tank – 100 Gallon (378L)
- Gray water holding tank – 120 Gallon (454L)
  (allows for addition of a chemical disinfecting agent)

**HVAC Systems:**
- BSL-2 operation
- Re-circulating HEPA filtration for supply air
- Operational for -40 C to +50 C operation

**Casework:**
- Stainless steel casework with rounded corners for ease of cleaning and decontamination
- Air-ride work bench allows for safe travel of sensitive analytical devices.
- Laboratory grade under-counter refrigerators (quantity 2) and freezer (quantity 1)

**Security systems:**
- Internal and external recording cameras (8-camera DVR system)
- Key code lock for laboratory door
- Intercoms located at laboratory and sample entry doors

**Additional equipment:**
- Enclosed full length tent at entrance
- Stairs to access sample entry airlock
- Trailer for transport of tent and stairs along with additional supplies