

Genera

The contractor shall furnish and install a ParkUSA Elevator Model ELY-XX complete pump, separator, and control and alarm system as shown on the drawings. Pump(s) shall be provided for each elevator hoistway.

A17.1/CSA B44 Safety Code for Elevators and Escalators, 2007, Section 2.2.2.5. The system shall function automatically to remove water and fluids from the pit automatically without any human intervention. Systems that do not remove all the fluid including oil are not compliant and will not be accepted.

An oil-water separator or equivalent protection shall be used to treat oily wastewater automatically from the elevator pit prior to discharge into the public sanitary sewer as required. Pumping into the storm sewer is not permitted. Systems that do not remove the oil will not be accepted.

Sump Pump

[illegible]

Oil/Water Separator

Refer to the schedule for capacity and size requirements. The separator is rated from 50 to 300 GPM, depending on the quantity of effluent tanks to be served. 50 GPM or 3000 GPH is per tank. AIT Section 2.2.5 (2007). The Wulfsberg separator shall be a pre-engineered stainless (316) epoxy coated tank of treating wastewater discharging free of petroleum hydrocarbons, concentration of less than 100 parts per million. Operating range of influent 40°F to 180°F and ambient air temperature from 0°F to 140°F. The specific gravity of the oils is these oils is 0.85. The separator shall be designed to withstand static and dynamic hydraulic loadings with empty and full operation. The tank shall be constructed of 304/316 stainless steel conforming to ASTM A312 for pipe, welds, flange distribution, and energy dissipator device. All internal components shall consist of 304/316 stainless steel. The separator shall be designed to handle 100% oil and 0% water. The separator shall be designed to handle all types of waste water that will not harm or clog excessively under test. Memory access one shall be 10-20 cubic yard. Polymers and gaskets. The separator shall utilize stainless media (stainless steel) of 10-20 cubic yard. Polymers and gaskets shall be made of stainless steel. The separator shall be designed to handle all types of waste water that will not harm or clog excessively under test. Media assembly shall be self-cleaning and removable.

Control System

The control system shall consist of float sensors and a single control panel (NEMA 4X weatherproof) that is wall mounted near the elevator shaft. The control panel shall be constructed and tested to meet UL508 standards and shall be housed in a weatherproof NEMA 4X electrical enclosure with a wiring terminal strip for field wiring to the J-box in the hoistway.

The control panel shall have the following functions:

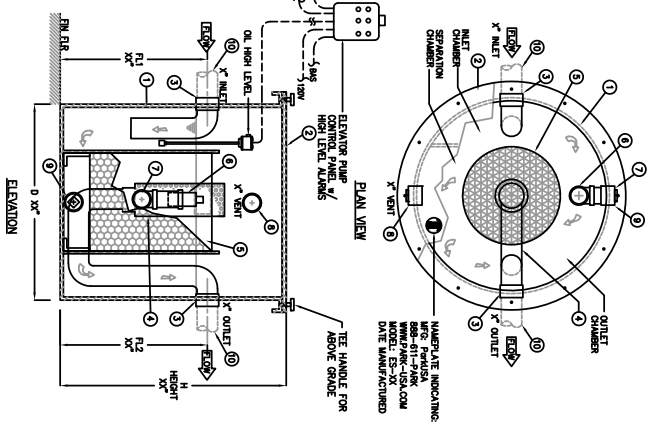
- a. Operates the sump pump, "On/Off" depending on shaft water levels. The panel shall have a "Hand-Off-Auto" switch, a "Pump Run" light, and auxiliary contacts for a BAS system.
- b. Indicates "Sump High Level" of the elevator shaft. In the event of pump malfunction, the panel shall have a "Sump High Level" illuminated red light and high decibel warning horn, a "Silence" switch and auxiliary dry contacts for BAS system.

- and controls for BAS system. NOTE: The presence of oil DOES NOT prevent the pump from operating.
- The panel also includes a separate over-current relay and field adjustable motor overload having a range of 5 to 15 amps. Factory set at 8 amps for this pump application. The control panel shall have a combination manual/automatic selector switch to test switch for motor overload with both automatic, manual reset and control diagnostics. The control panel shall be factory set for automatic overload reset.
- c. Indicates High Oil Level of the separator. In the event of a high accumulation of oil in the separator, the panel shall have a "Separator Oil Level" illuminated red light & high decibel warning horn. A "Silencer" switch and auxiliary dry contact for BAS system. NOTE: The presence of oil DOES NOT prevent the pump from operating.

The control system includes three fully adjustable brake switches located in the pump, Pump Off, Pump On, and High Level. Provide a factory pre-wired MEMA® water-tight junction box with a semi-rigid wiring terminal strip. Provide factory installed wiring of pump and floats into a MEMA® junction box. All cables between the pump and junction box shall be a minimum of 6 mg per NEC 2008. The cable shall be heavy gauge, water-tight and oil resistant. The float and oil sensitive probe shall be factory mounted on the pump housing. All cable entries into the float from the pump pit shall have NEMA® water-tight and gasket. The oil sensing probe is to be factory mounted and positioned within the separator and factory tested as a complete system.

Acceptable Manufacturers:

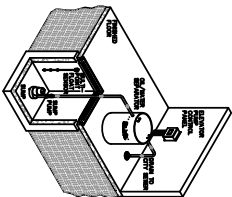
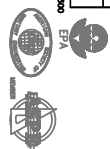
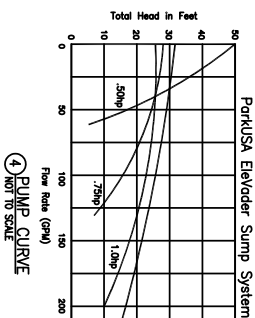
ParkUSA Elevator System, 888.611-PARK, www.Park-USA.com or Engineered pre-approved equal, provided all of the specifications are met.



NOTES

- 1 SEPARATOR BUSH WITH INTERIOR/EXTENSION
CUT FINISH
- 2 MAGNETIC REMOVABLE STEEL, ACCESS COVER
WITH 1/2" DIA. HOLES, REQUIRED W/ SS BUSHING
- 3 2", 3" OR 4" WPT STEEL ROLL CHRG
- 4 1/2" STD-FLOW AUTOMATIC SHUT-OFF VALVE,
AT LINE PRESS
- 5 GUTTERBALL COLLAPSING PUMP PACK
TO SEPARATE OIL & SOLIDS
- 6 1" ALUMINUM SHOWER
- 7 2" OIL DRAIN - WPT FULL CHRG W/ PLUG
- 8 2" VENT - WPT HALF CHRG
- 9 2" DRAIN - WPT HALF CHRG W/ PLUG
10 PUMP BY OTHERS

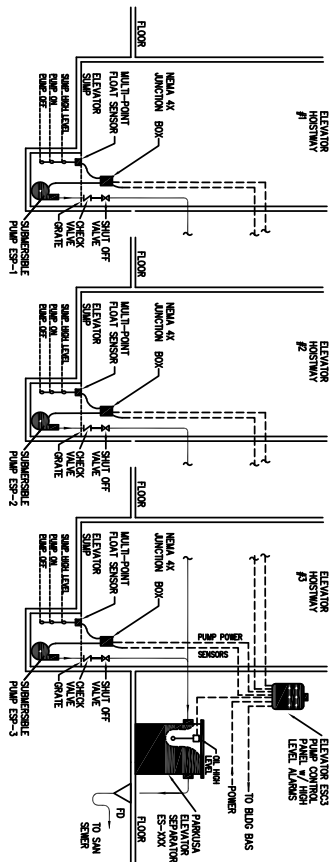
② ELEVATOR SEPARATOR DETAIL
NOT TO SCALE



③ ELEVATOR SUMP SYSTEM SCHEDULE
NOT TO SCALE

| ELEVATOR SUMP SYSTEM SCHEDULE | | | | | | | | | | | | |
|-------------------------------|-----------|----------------|--------|-------|--------|-------|--------|-----------------------|-----|-----|---------------------------------|---|
| SYSTEM MODEL | | SEPARATOR DATA | | | | | | SUBMERGIBLE PUMP DATA | | | | |
| LINE NO. | LINE NAME | INLET | OUTLET | INLET | OUTLET | INLET | OUTLET | TOH | PSH | HP | WAT/HP | |
| ELVS-100 | ELVS-100 | 50 | 100 | 50 | 50 | 45 | 35 | 50 | 45 | 2 | 115/1 | |
| ELVS-130 | ELVS-130 | 100 | 150 | 50 | 75 | 50 | 35 | 45 | 35 | 1 | 115/1 OR 200/3 | |
| ELVS-200 | ELVS-200 | 150 | 200 | 100 | 100 | 35 | 35 | 65 | 150 | 1.5 | 200/1 OR 200/400/3 | |
| ELVS-250 | ELVS-250 | 200 | 250 | 100 | 125 | 50 | 75 | 65 | 65 | 200 | 15 | 2 |
| ELVS-300 | ELVS-300 | 250 | 300 | 100 | 150 | 35 | 75 | 65 | 65 | | SEE ABOVE FOR PUMP(S) SELECTION | |
| ELVS-350 | ELVS-350 | 300 | 350 | 100 | 175 | 45 | 77 | 65 | 65 | | SEE ABOVE FOR PUMP(S) SELECTION | |
| ELVS-400 | ELVS-400 | 350 | 400 | 100 | 200 | 45 | 65 | 65 | 65 | | SEE ABOVE FOR PUMP(S) SELECTION | |
| ELVS-450 | ELVS-450 | 400 | 450 | 100 | 225 | 45 | 65 | 65 | 65 | 37 | SEE ABOVE FOR PUMP(S) SELECTION | |
| ELVS-500 | ELVS-500 | 500 | 550 | 100 | 275 | 45 | 67 | 77 | 65 | | SEE ABOVE FOR PUMP(S) SELECTION | |

① ELEVATOR SUMP DETAIL
NOT TO SCALE (BELOW GRADE SEPARATOR)



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PROJECT :

CUSTOMER :

ORDER #:

DATE : _____

DESIGN FOR WATER



Elevator Climb System - Three (3) Hoistway

[illegible]

EI VS-3H-MD

1100