

1.1 TORNADO SHELTER CONTROL PANEL

- A. The contractor shall provide and install a recessed back box to support the installation of three illuminated STI shut off buttons that shall provide various functions for the tornado shelter. A 4th button shall be installed in a dedicated enclosure at a location determined by the MEP drawings.
- B. The panel enclosure will be a Hoffman Protek Single Door Enclosure, Model # PTRW242412G2 with a wood back panel, # CP2020W or equivalent. This will house Buttons #1-3. Button #4 will have its own enclosure and that will be Hoffman Model # D16148WFW. Reference the MEP drawings for the 4th button location.
- C. All doors that support the shelter entrances shall have latch retraction. When button #1 is activated the access control system shall lock down the shelter doors. Verify door requirements with door hardware schedule, the hardware specifications and the technology drawings. Reference the architect tornado shelter drawings for additional requirements for this button and other functional requirements.
- D. Button # 2 shall control the louver roll up doors located in various areas of the shelter space. The button shall also control the exhaust fan as shown in the architectural drawings. Reference the technology and MEP drawings for those locations. When activated, the button shall control the opening of the roll up doors. When the key reset is initiated, the doors will close. These roll up doors will only be controlled via this button or through the access control software and through no other mechanical device. There will be contacts on the coiling doors to indicate when the doors are fully opened. This will be connected to the access control system. Reference the architect tornado shelter drawings for additional requirements for this button and other functional requirements.
- E. Button # 3 shall control the gas shut off. This button shall be provided and installed by the access control contractor. Wire connectivity from the button to the two electric actuated controllers that shut off the valves shall be provided and installed by the contractor. Reference the MEP drawings for the device locations. Coordinate all activity with the plumber and or electrician installing the shut off devices. Reference the architect tornado shelter drawings for additional requirements for this button and other functional requirements.
- F. Button #4 shall control the air pressure for the water tanks. This button will release pressurized air into the water tank when the water pressure drops below 55 PSI. An LED light will be activated once the pressure is below 55 PSI and turn off when the pressure again reaches the desired 55-70 PSI range. Reference the architect tornado shelter drawings for additional requirements for this button and other functional requirements. This button shall be installed in the smaller enclosure and installed separate from the main control panel. Reference the MEP drawings for this button and its supporting enclosure location.

1.2 STI SHUT DOWN BUTTONS FOR THE TORNADO SHELTER PANEL

- A. The buttons shall be color-coded as shown below. Each button shall be equipped with a key to reset the button status. When pressed, the button shall be illuminated to indicate to the user that the button has been successfully deployed. Each button shall also require a protective lid or clear plastic cover.
- B. Each cover shall contain written instructions on what the button will do when pressed and how the button should be reset and when. Coordinate with the Owner on all final texts for this direction. All labeling shall be machine generated.
- C. The buttons shall be manufactured by STI and will all be identical in function. Only the button color shall be different.

- D. Button 1 – shall be colored red, labeled with the number 1 over the top of the button case, and inside the cover on the button and the button shall be labeled with the words “Shelter Door Lock Down”.
- E. Button 2 shall be colored blue labeled with the number 2 over the top of the button case, and inside the cover on the button and the button shall be labeled with the words “Louvered Ventilation Door Control”
- F. Button 3 shall be colored yellow, labeled with the number 3 over the top of the button case, and inside the cover on the button and the button shall be labeled with the words “Gas Shut Off”.
- G. Button 4 shall be colored green, labeled with the number 4 over the top of the button case and inside the cover on the button. The button shall be labeled with the words “Air Pressure for Water Tank”. This button will be located in a separate location and the location shall be coordinated with the MEP.
- H. Each button shall be served with a 1” conduit installed in the wall to the enclosure location. The STI buttons shall be surface mounted inside the enclosure.
- I. Each button shall contain a key that resets the button to its original state. The access control system log must show this reset as a “reset by Owner” entry in the log.
- J. Each button shall remain illuminated until reset by the key.

1.3 LED LIGHTING FOR STI BUTTON FUNCTIONS

- A. Each button will have an LED indicator light below the STI button that will illuminate once its function is complete. Reference the architect tornado shelter drawings for additional requirements for this button and other functional requirements.
- B.
 - 1. For Button #1, the LED light will remain on until the button is manually reset. If a shelter entrance is opened, the light will deactivate indicating an open door. The button shall remain illuminated until reset by the key.
 - 2. For Button #2, the LED light will only activate once the coiling door has opened completely. A photo eye will be placed on the coiling door for safety operation. The button shall remain illuminated until reset by the key.
 - 3. For Button #3, the LED light will activate once the gas valve is closed. This will need to be coordinated with MEP. The gas valves are on the exterior of the shelter. Coordinate with MEP for their locations. The button shall remain illuminated until reset by the key.
 - 4. For Button #4, the LED light will activate when the pressure falls below 55 PSI. The light will remain active until the air tank has been replaced and the pressure has reached at least 55 PSI. If the tank should lose pressure and drop below 55 PSI the LED light will turn on. The light will turn off once the correct pressure is reached. This procedure shall be coordinated with the MEP.
- C. Under Buttons #1-3 there will be a machine generated label stating “READY” and under Button #4 the label will read “WARNING”. The lettering will be capitalized in a font size approved by the LEPC or Architect.