PERT Telephone Installation Criteria   28.26.23

Description:
> The purpose of the section is to highlight the current applicable UMCP Design Standards for the design and installation of the Police Emergency Reporting Telephones (PERT) systems.

Related Sections:
- TBD

Effective Date:
> December 2, 2002

Applicable Standards:
- TBD

General Requirements:

The number, type (free-standing or wall-mounted) and location of PERT telephones will be recommended by the Consultant to the University on a project-by-project basis.

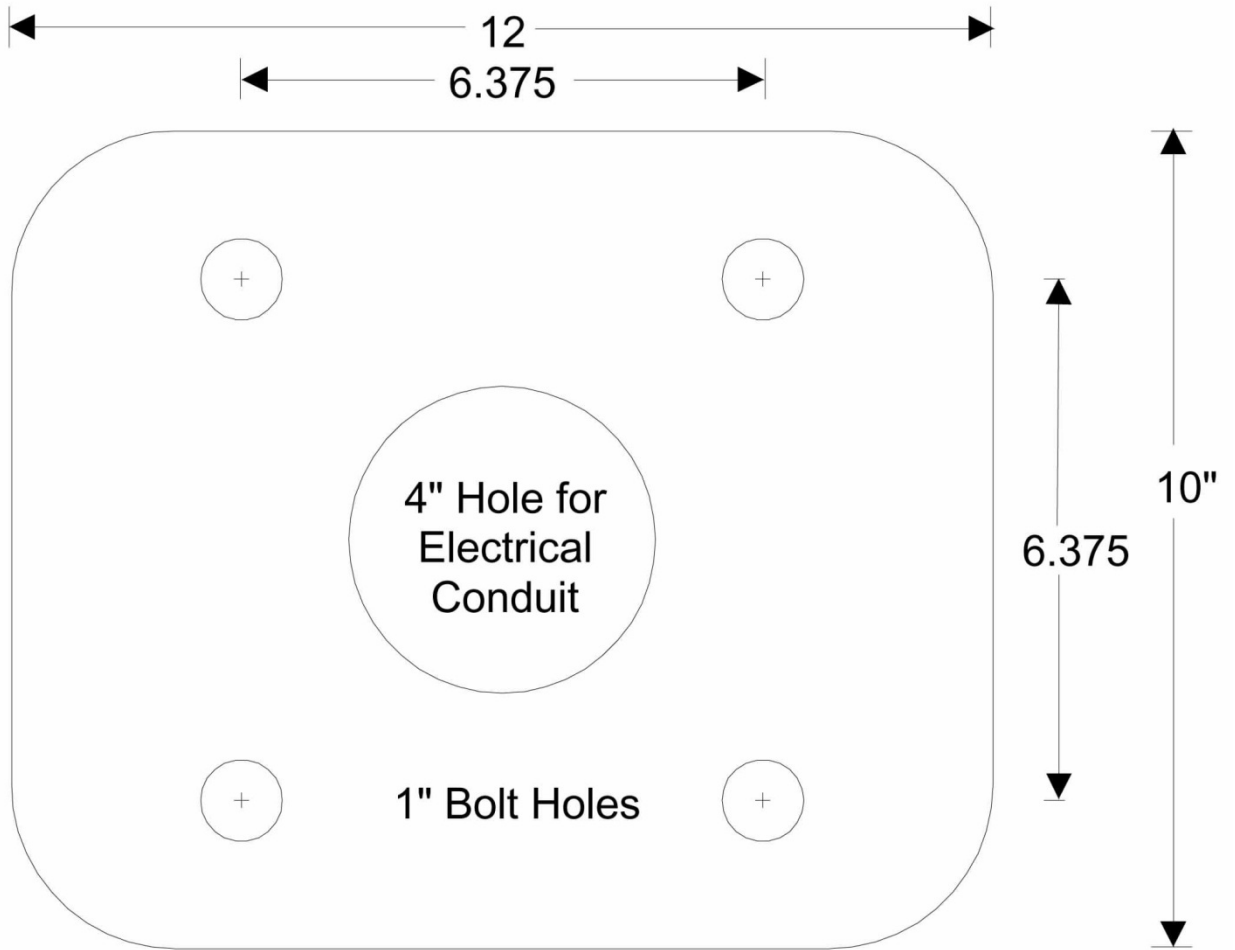1. **Free Standing Emergency Telephone**
   - The Contractor shall furnish and install an outdoor emergency telephone (manufactured by Talk-A-Phone Company, stock No. ETP-MT/R OP4/CP, no substitutions, with vandal resistant security unit with speakerphone with keypad and University of Maryland Software, blue light and strobe. Furnish with nicklad 2000 finish in Midnight Blue to match existing on campus in location shown on the drawings. Installation requirements include the following:
     - A concrete foundation for the communication tower of 24" square and a minimum of 36" deep with a slight slope from center. Stub-up electrical and communication conduit (two 1-1/2") including an 8' x 5/8" copper ground rod in the center of foundation as shown on the attached drawing.
     - A dedicated (unswitched) 120 volt, 20 ampere electrical power circuit in conduit from the University designated location to the location of the communication tower.
     - A 1" conduit with six (6) 24 AWG, filled telephone cable from the University designed location to the communication tower. Reference Section 27 00 00.

   - Referencing the attached Drawing #ETP-MT/R FOUNDATION, installation instructions for the Emergency Lighting and Communications Tower include:
     - Install the four (4) 3/4" - 10 x 24 long anchor bolts below grade **with five inches (5") projecting above grade**. Use the template provided to properly position the bolts within the concrete foundation.
     - After removing its protective shipping wrap, install the blue light/strobe assembly on top of the tower, feeding the 110 VAC power cord and control wires through the top of the tower. Fasten the blue light/strobe to the tower with three (3) 10 x 24 pan head/spanner screws (provided). Secure the 10" x 12" protective housing to the top of the tower using four (4) 1/4 x 20 pan head security screws (also provided).
     - Note: It is not necessary to connect 110VAC power lines at this point.
     - Install the fluorescent light ballast assembly over the Emergency Phone opening with the two security screws provided. Make sure the power is off, and then install the fluorescent bulb. An acrylic window and frame cover the bulb. Peel the protective paper off the acrylic window and install the window and frame using the four security screws provided.
     - Install one 3/4" nut and one washer on each anchor bolt (2" to 2.5" above grade to top of nut) and verify that the nuts are level (0° pitch).
     - Note: To insure proper grounding of all electrical components, a grounding strap is required by the National Electrical Code. We recommend the use of an insulated, 6 AWG stranded wire connected between the electrical conduit (within the concrete base) and the tower. The best place to connect
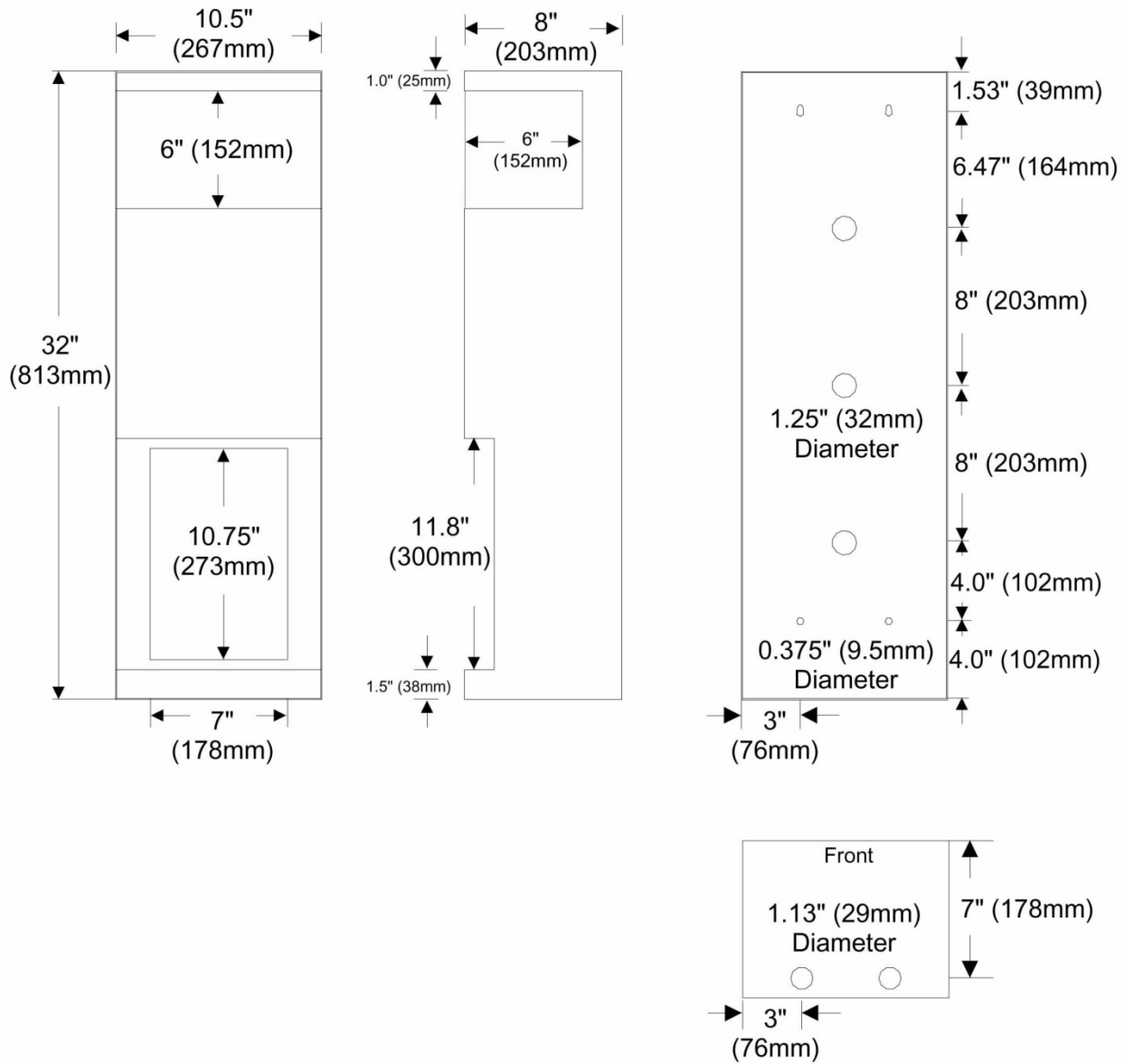
the ground wire to the tower is via one of the four anchor bolts. It is necessary to remove the paint from the inside edge of one of the anchor bolt holes and the inside surface around the bolt hole to ensure the grounding wire makes a good electrical connection to the tower. This must be done before installing the tower.

- After removing the cover plate from the tower's rear access opening, install the tower onto the bolts with the Emergency Phone opening oriented in the desired direction. Install second set of nuts and washers. Wrap the 6 AWG grounding wire around the mounting bolt where the paint has been removed. Tighten the upper nuts; the bottom set is only for leveling. The possibility of corrosion where paint has been removed can be reduced by painting the nut assembly where the grounding wire has been attached.
- Wire incoming 110 VAC power to the blue light/strobe and to the fluorescent light. Depending upon installation preference, use the electric plugs provided for the blue light/strobe and fluorescent light, or remove the plugs for hard-wiring.
- Connect the black control wire of the blue light/strobe to the black wire of the Emergency Phone. This is the common wire. Then connect the orange control wire of the blue light/strobe to the orange wire of the Emergency Phone. This is the AUX 2 output lead. Attach the Emergency Phone to the tower with six (6) 10-24 spanner security screws (provided). Connect the phone line coming into the tower to the male RJ11 connector coming from the Emergency Phone. An outdoor rated RJ11 female modular jack on the end of the incoming phone line is strongly recommended.
- Re-attach the cover plate over the access opening at the rear of the tower with the two (2) tamper resistance 1/4" spanner screws provided. You may discard the two regular screws which held the cover plate in place during shipment.
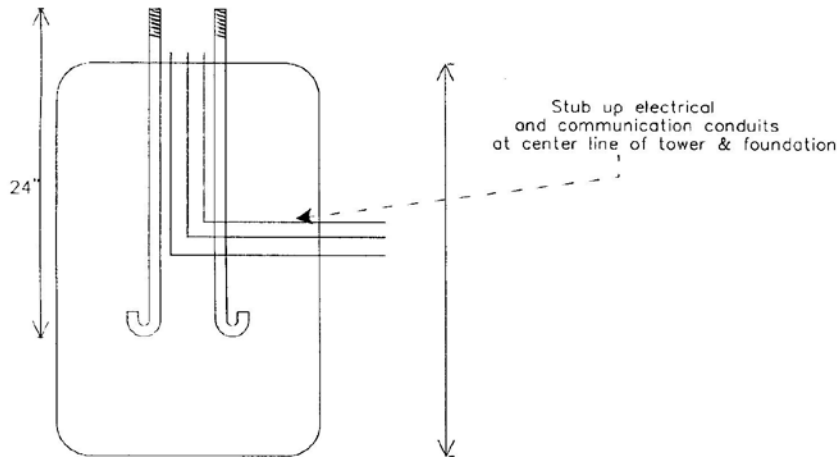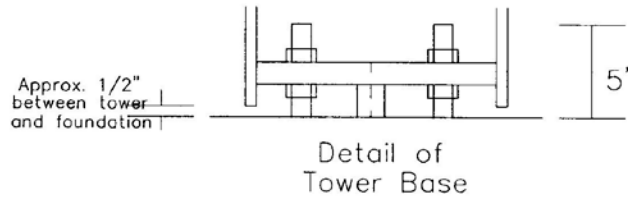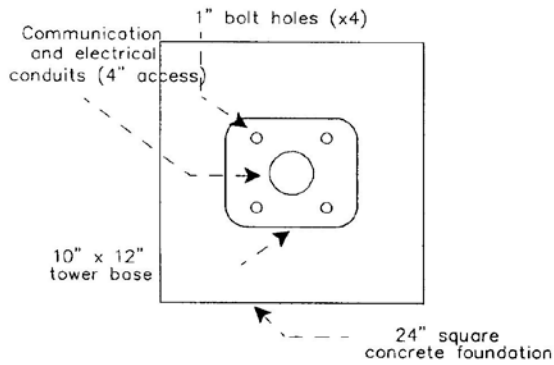
2. **Wall-Mounted Emergency Telephone**
   - The contractor shall furnish and install an outdoor, wall-mounted Emergency Telephone manufactured by Talk-A-Phone Company, Stock No. ETP-WM/CP, with vandal resistant security unit with speakerphone with keypad and University of Maryland software, blue light and strobe.
   - Referencing the attached Drawing, #ETP-WM, installation instructions for the Emergency Lighting and Telephone include:
     - The ETP-WM is held to the wall with 4 screws. Install two screws of the appropriate type to the wall as shown on the enclosed template (top two holes). Note that the screws should be located so that the ETP-WM will be at the desired height and in the correct position to receive any conduit connections.
     - Electric power and the telephone line can be brought into the unit in one of two ways.
       - There are three large openings in the back of the unit to allow the unit to be mounted over a standard electrical outlet box and/or telephone connector box.
       - There are two conduit openings available on the bottom of the unit for connection of power and/or telephone line. (Note: Power and telephone lines cannot be run in same conduit.)
     - Remove the cap lid from the ETP-WM by removing the four #10 spanner security screws located on the side of the unit. DO NOT REMOVE THE LEXAN® LENS. Mount the unit on the wall using the two keyholes on the top rear of the unit to the two screws mounted to the wall in step a.
     - Install two additional screws of the appropriate type in the holes in the lower rear of the unit. Tighten all four screws.
     - Install conduit to hole(s) in bottom of unit, if this method is being used (see step 2), and bring power line and/or telephone line to inside of unit.
     - To wire the Blue Light/Strobe, find the AC power cord and the orange and black control lines coming from the strobe inside of the ETP-WM enclosure. Connect the power cord to the power source, and connect the orange and black wires from the Blue Light/Strobe to the orange and black wires (auxiliary output #2) extending from the Emergency Phone.
     - The faceplate light and ballast is installed prior to shipment. Be sure to connect the power cord to the power source.

- Connect the RJ-11 plug extending from the Emergency Phone to a phone line connection box.
- Mount the Emergency Phone into the recessed opening of the ETP-WM using the 6 #10-24 security screws provided.
- Re-install the cap lid that covers the blue light/strobe.

- No exposed conduit is permitted in any new construction and unless proper approval is received from the University, the same applies to retrofit projects.

ETP–MT/R FOUNDATION

Communication and electrical conduits (4" access)

1" bolt holes (x4)

10" x 12" tower base

24" square concrete foundation

Approx. 1/2" between tower and foundation

5"

Detail of Tower Base

Stub up electrical and communication conduits at center line of tower & foundation

24"

Note: Installation must comply with all National, State and Local Construction and Electrical Codes

- Installation Drawings above by:
  - Talk-A-Phone Co. (Rev. 3/8/99); 5013 North Kedzie Avenue, Chicago, Illinois 60625-4988. Phone (773) 539-1000, Fax: (773) 539-1241, Email info@talkaphone.com; http://www.talkaphone.com.