

EXTERIOR CLOCK SPECIFICATIONS – SURFACE MOUNT DIAL CLOCK**PART 1 – GENERAL**

1.01 SUMMARY

- A. Provide clock system consisting of _____ clock(s), _____ in diameter, as shown on drawings, as specified, and as needed for a complete and proper installation.
- B. Coordinate clock system of this section with General Conditions and Supplementary Conditions.

1.02 SUBMITTALS

- A. Submit shop drawings and wiring diagrams. Upon approval, General Contractor shall send to field or jobsite superintendent copy of final approved shop drawings and wiring diagrams.
- B. Submit dial sample (if required)
- C. Submit color sample – for exposed surfaces (if required)

1.03 QUALITY ASSURANCE

- A. Use adequate number of skilled workmen who are thoroughly trained and experienced in the necessary crafts, and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this section.
- B. Use materials which shall be free from defects impairing strength, durability, and appearance; shall be of best commercial quality for purpose required; and shall comply with the approved drawings.
- C. Use manufacturer who has had ten (10) years of experience in the manufacture of the specified product.

1.04 WARRANTY

- A. Warrant the clock system for one year after the date of delivery of product installed by others. Warranty is not in effect as a result of lightning damages, vandalism, improper wiring, or improper servicing.

PART 2 – PRODUCTS

2.01 MANUFACTURER

- A. Use the Surface Mount Dial Clock as manufactured by Elderhorst Bells, Inc. 875 Gravel Pike, Palm, PA 18070, Phone: 800-810-7892, Fax: 215-679-3692

2.02 MATERIALS

- A. One EB-Series Clock Movement for each clock is to be provided. The EB-Series, impulse type clock drive movements feature all brass square cut spur gears, stainless steel shafts, and bronze bearings. The EB-series clock movements are built on a heavy aluminum frame in a maintenance free design. The movements are driven by a 120 Volt, 60 hz, high-torque motor which is activated by the impulse type clock controller at one minute intervals. The EB-Series clock movements are Listed to applicable U.S. and Canadian safety standards by Underwriters Laboratories.
- B. Clock hands to be provided for each clock and are to be cut from 1/8" (.125") thick aluminum and are attached to brass hubs with stainless steel hardware. The hub is to be machine bored for proper fit to the clock movement shaft. Balance rods or counterweights are to be affixed to the clock hands to properly balance the hands. Clock hands are to be type EB- _____.

One surface mounted Clock dial for each clock is to be provided.

-Surface Mount Acrylic Clock Dial: ¼" thick white acrylic with ¼" thick black acrylic dial markings permanently bonded to the dial surface. Dial to be housed in a two inch deep aluminum housing with mounting ring. (available in diameters from 24" to 108" Clock movement may be mounted directly to clock dial assembly or can be "through the wall" installed)

OR

-Surface Mount Aluminum Clock Dial: 7/8" thick fabricated aluminum dial with ¼" thick aluminum dial markings with standoffs and concealed mounting studs. (available in diameters from 24" to 96" Clock movement may be mounted directly to clock dial assembly or can be "through the wall" installed)

2.03 ACCESSORIES

A. Provide an EB-200 series Clock Controller – this is a minute impulse type master-clock with a high degree of accuracy due to the quartz micro-processor time base. The unit incorporates a lithium battery backup for automatic time correction following power failure, and automatic daylight savings time correction. The controller is housed in a NEMA 4X/6P wall mount enclosure. Field wiring diagrams are to be provided.

OPTIONAL ITEMS:

B. TEMPORA-DIGITAL Clock/Carillon system – quartz based with battery backup for automatic time correction following power failure. Automatic daylight savings time correction. The digital carillon system allows for user programmable play of 1-4 bell peals, funeral tolls, Westminster Chime (or other hourly melody), Hour-strike, and a limited selection of included melodies. System includes an amplifier. (requires loudspeakers – see below)

____ reflex sound projector loudspeaker horn(s) will be provided with 60 watt drivers, (4 recommended for uniform sound dispersion).

C. GPS- Global Positioning Satellite time synchronization system. Includes antenna and receiver for automatic time correction from the GPS time signal.

2.04 FABRICATION

A. Fabricate hands, dial markings, and/or surface mounted dial proportional to diameter of clock noted above.

B. Fabricate clock movement, and test for proper operation with Clock controller.

2.05 FINISHES

A. Finish all aluminum surfaces exposed to front viewing. All aluminum surfaces shall be caustic etched, primed with two heavy coats of primer, and finished with two heavy coats of industrial enamel, (black standard –additional colors available). All concealed metal to be of mill finish aluminum.

2.06 CAULKING

A. Clean and dry all surfaces to be caulked.

B. Apply silicon caulking with caulking gun, using nozzle of proper size to fit joint width.

PART 3 – EXECUTION**3.01 PROJECT SITE CONDITIONS**

A. Verify that site conditions are suitable and accessible for delivery and installation.

B. Confirm that all preparatory work is in place in accordance with approved shop drawings prior to installation.

3.02 INSTALLATION

A. Use skilled and experienced installation craftsmen familiar with such work, and in accordance with manufacturer's instructions and approved shop drawings.

B. Coordinate with other trades as required to assure proper and adequate installation

C. Install clock controller in an accessible area.

D. Provide and install separate electrical circuits 120 vac 60 hz for clock system, in accordance with local building and electrical codes.

3.03 CLEAN-UP

A. Clean all soiled and dirty areas, and touch up any scratches or abrasions.

B. Clean up all debris caused by work of this section, keeping the premises clean and neat at all times.

END OF SECTION