

ITEM 0350301

BUS STOP SHELTER

DESCRIPTION

Work under this item shall consist of furnishing and installing bus stop shelters at the locations shown on the plans or as directed by the Engineer in conformity with these specifications. Bus stop shelters shall include wall, frame, roof and glazing panels all required accessories and hardware for installation. Shelters shall be vandal resistant, maintenance free and completely weather proof.

REFERENCED ITEMS

None

REQUIRED SUBMITTALS

Shop drawings shall be required as described in Section 1.05.3 of The State of Connecticut, Department of Transportation, Standard Specification for Roads, Bridges, and Incidental Construction Form 816, 2004.

MATERIALS

All aluminum shall conform to the standards of the Aluminum Association. Shelter construction shall conform to the standards of ASCE. Shelters shall be designed to withstand minimum dead loads of 40 psf and minimum wind loads of 75 mph. Shelters shall be models number 4001HR and, 2001HR as manufactured by Columbia Equipment Company, Jamaica, NY, 718-658-5900 or approved equal.

CONSTRUCTION METHODS

Shelters shall be a prefabricated structure that is assembled on site. Shelters shall be constructed of modular interchangeable components. All structural framing members and mullions shall be one piece seamless extruded aluminum tubes of 6061T6 or 6063T52 alloy. Snap together or 2-piece tubes will not be accepted.

Window frames, fascias and roof "hold downs" shall be multi function extrusion of 6063T52 or T6 alloy. Window frames and fascias shall permit use of various interchangeable glazing and roofing material.

Framing members connections shall be concealed utilizing 2.5" x .25" or 2.5" x 1.25" x .25" thick aluminum U-channels with integral weep system and tapered edges.

Main structural joints shall be fastened with (2) Hi-strength Stainless Steel bolts with washers, lock washers and nuts and 6mm structural aluminum drive rivets. Self-tapping connectors will not be accepted.

Shelter shall be attached to sidewalk as shown on detail sheets. Shelter manufacturer shall furnish the internal pipe anchor.

Framing Members: All main structural framing, both vertical and horizontal, shall be the same size and a minimum of 2.5" x 2.25" x 1/8" thick. Mullions shall be 1.5" x 2.25" x 1/8" thick rectangular aluminum tubes.

Window Framing: Window frames shall be "F" shaped extruded sections with integral alignment lip with beveled edge, and screw boss or corner key slot. All corners shall be mitered and fastened internally with concealed stainless steel screws. Each window frame unit, with window, shall be "independent" of the structural frame. Tamperproof 5mm shallow head aluminum rivets (finished to match shelter) shall be used to fasten window frames to structural frame at approximately 13" o.c. Window frames shall permit glazing to be engaged up to .75" to prevent "pop out".

Finish: All aluminum framing and fascia members shall have a powder coat paint finish as manufactured by the Tnemec Company, Inc., P.O. Box 411749, Kansas City, MO 64141 or approved equal.

Glazing: Glazing shall be 6mm clear, mar-resistant polycarbonate, "Margard" or approved equal. The Margard shall have a clear coating on both sides to make it resistant to scratching, and more easily cleaned if marked up with graffiti. All glazing shall be gasketed with continuous extruded PVC dry set splines. All windows shall be of a single, interchangeable size.

Roof: The roof shall be a metal, hipped roof. The roof shall be sealed so that it is leak and condensation proof. The ceiling shall be constructed with single section, flat fiberglass reinforced marine plywood sandwich panel with white gel coat finish. Roof shall be framed with extruded aluminum members and shall be covered with exterior grade, .75" plywood and sheathed with pre-painted powder coat paint finish standing seam aluminum skins with a Tnemec finish as specified above. Color shall be as shown on the plans, or as approved by the engineer.

Foundations: Foundations and anchorage systems required for bus shelters shall be included under this item and shall be furnished and installed in accordance with the manufacturers recommendations and as shown on the drawings.

METHOD OF MEASUREMENT

Work under these items will be measured for payment by the actual number of each bus stop shelters of the type specified, delivered, installed and accepted in place at each location shown on the plans with necessary appurtenances.

BASIS OF PAYMENT

This work will be paid for at the contract unit price for each "BUS STOP SHELTER", which price shall include all shop drawings, catalog cuts, materials, tools, equipment, labor and work incidental thereto.

<u>PAY ITEM</u>	<u>DESCRIPTION</u>	<u>PAY UNIT</u>
0350301	Bus Stop Shelter	EA