

PART 1 - General

1.1 RELATED SECTIONS

- .1 Section 26 05 01 Common Work Results - For Electrical.

1.2 WASTE MANAGEMENT AND DISPOSAL

- .1 Collect and separate plastic, paper packaging and corrugated cardboard in accordance with Waste Management Plan.
- .2 Fold up metal banding, flatten and place in designated area for recycling.

PART 2 - Products

2.1 SUPPORT CHANNELS

- .1 Use only stainless steel support and racking systems for all raceway installed in Tunnel area. All components shall be factory-fabricated for field assembly and designed for types and sizes of raceway or cable to be supported.
- .2 Stainless steel support and racking systems include and not limited to the following components: Hangers, channel, fittings, clamps, raceway supports, threaded rods, etc.
- .3 U shape, size 41mm x 41mm x 2.5mm thick, surface mounted, suspended, set in poured concrete walls and ceilings.
- .4 All strut to be galvanized.
- .5 All threaded hanger rods to be minimum 10mm diameter, larger if required, made from mild steel.
- .6 In concrete use cast in threaded inserts wherever possible. Should additional inserts be required use a "red head" type of insert capable of carrying at least 227 kg.
- .7 Supports for all conduit work shall be one hole steel pipe straps; unistrut, or equal, with necessary fittings, approved for their respective use.
- .8 All pull and junction boxes, wireways, and multiple conduits shall be supported by a steel channel support system with all components, hangers, wall supports, cable clamps, etc., specifically manufactured and approved for their application.
- .9 Fastening devices for cabinets, boxes, supports etc., shall be nut and bolt, expansion shields, wedge anchors, or toggle bolts, size and number to suit the application or as detailed on the drawings. Toggle bolts may not be used in plasterboard construction.

- .10 Fastening devices for outlet boxes shall be nut and bolt, expansion shields, wedge anchors or caddy clips, size and number to suit the application or as detailed on the drawings.
- .11 Where outlet boxes are set in drywall construction, a piece of steel stud shall be secured to either side of the outlet box or use caddy quick-mount box supports, or caddy J-1-A for side box supports

PART 3 - Execution

3.1 INSTALLATION

- .1 Secure all equipment in a manner so as not to distort or cause undue stress on any components.
- .2 Secure equipment to masonry, tile and plaster surfaces with lead anchors or nylon shields.
- .3 Secure equipment to poured concrete with expandable inserts.
- .4 Secure equipment to hollow masonry walls or suspended ceilings with toggle bolts. Toggle bolts shall not be used to secure equipment to plasterboard, drywall, or acoustic tile surfaces.
- .5 Secure surface mounted equipment with twist clip fasteners to inverted T bar ceilings. Ensure that T bars are adequately supported to carry weight of equipment specified before installation.
- .6 Support equipment, conduit or cables using clips, spring loaded bolts, cable clamps designed as accessories to basic channel members.
- .7 Fasten exposed conduit or cables to building construction or support system using straps.
 - .1 One-hole steel straps to secure surface conduits and cables 53mm and smaller.
 - .2 Two-hole steel straps for conduits and cables larger than 53mm
 - .3 Beam clamps to secure conduit to exposed steel work.
- .8 Suspended support systems.
 - .1 Support individual cable or conduit runs with 10mm dia threaded rods and spring clips.
 - .2 Support 2 or more cables or conduits on channels supported by 10mm dia threaded rod hangers where direct fastening to building construction is impractical.
- .9 For surface mounting of two or more conduits use channels at 1500mm on centre spacing.
- .10 Provide metal brackets, frames, hangers, clamps and related types of support structures where indicated or as required to support conduit and cable runs.

- .11 Ensure adequate support for raceways and cables dropped vertically to equipment where there is no wall support.
- .12 Do not use wire lashing or perforated strap to support or secure raceways or cables.
- .13 Do not use supports or equipment installed for other trades for conduit or cable support except with permission of other trade and approval of the Departmental Representative.
- .14 Do not support any electrical conduits, wire or equipment from ceiling system support cables.
- .15 Install fastenings and supports as required for each type of equipment cables and conduits, and in accordance with manufacturer's installation recommendations.
- .16 In addition to the C.E.C. conduit support requirements, all suspended conduit runs containing horizontal or vertical elbows shall have one additional support installed not greater than 300mm from the midpoint of the 90° bend.

END OF SECTION