**Bonding Dowels in Drilled Holes**

There are three materials currently specified to bond a reinforcing dowel into a drilled hole in existing concrete.

**Grout**

Where plans or special provisions do not specify a bonding material, a cement paste is to be used as outlined in Section 51-1.13 of the Standard Specifications. Special Provisions will contain a section *Drill and Grout Dowels* where this is a separate contract item.

**Magnesium Phosphate Concrete**

Plans may indicate "Drill and Bond Dowel ... etc." Special Provisions will have a section *Drill and Bond Dowels* which refers to Section 83-2.02D (l) of the 1988 Standard Specifications. This specification is used where concrete barriers are to be constructed on existing bridge decks and can be used in other locations where shown on the plans. (Note - Corresponding 1984 Standard Specifications refer to Section 51-1.13 for bonding requirements.)

**Epoxy**

Plans in this case will indicate the use of epoxy bonding material. Special Provisions will have a section *Drill and Epoxy Bond Dowels* and there will be a separate contract item to cover the work.

The Structure Representative should not permit a substitution of the specified materials unless approved by the Structure designer.