**WIRE & CABLE INSTALLATION**

**Direct Burial -** Wire and cable burial depth is dictated by the National Electrical Code®, Table 300.5. Temperature changes cause wires and cables to expand and contract as much as 1% of the length. And high voltage power lines create large electro-magnetic fields that cause interference and corrupt signals in communication lines. It is therefore necessary to take certain precautions when installing these products.

The contractor shall take necessary precautions with all wires and cables such that they will not be damaged during the installation process. Clean backfill soil must be used to prevent rocks from damaging the wires and cables.

When installing wires and cables in a trench, they must be “snaked” so that some slack is created. At the point in the trench where there are sharp bends, a loop of 12” to 24” shall be created to allow for shrinkage.

The contractor shall install all wires and cables carrying up to 30 volts at a minimum burial depth of 6”. If mechanical equipment, such as aerifiers and shovels, are expected to disturb the area, then the wires and cables shall be installed at a minimum depth of 12”. For wires and cables carrying more than 30 volts and less than 600 volts, the minimum burial depth shall be 24”. If the irrigation controller is Listed as a “Power Limited Power Supply” (Class 2 or Class 3), the wires carrying more than 30 volts and less than 50 volts may be installed to a minimum depth of 12”, as long as they will not be damaged during routine maintenance of the grounds.

When communication cables are in the same trench as the power wires, there shall be a minimum separation between them of 12”.

Check the irrigation plans to see if more specific details are defined on burial depth and wire colors.