Nationally when utilities are installed, particularly gas lines, .02 percent of sewer laterals are hit by the drill. This number goes up if Cross Bore Prevention methods are not used. The average cost of an explosion from a gas cross bore is over $10,000,000.00, and if there are deaths the costs go up. It is in everyone’s interest to prevent and detect Cross Bores before they are hit by a Sewer Utility or Plumber.

Cross Bore Prevention and Detection are two very serious issues. Cross Bore prevention occurs before and during the actual drilling takes place. Cross Bore Detection occurs after the drilling has occurred. Both aspects are important but the more important of the two is Cross Bore Detection.

 Cross Bore Prevention involves sewer mainline, and lateral CCTV, Pot Holing and traditional, trenching, installation. CCTV of the sewer mainline and laterals needs to include electronic locating of all areas of possible contact between the two utilities. Typically, all mainlines will be CCTV’ed end to end and laterals CCTV’ed to a point 5-10 feet beyond the proposed drilling path. All areas that may be in the drilling path will be located, including depth, to provide guidance for the drill operator.

Cross Bore Detection occurs after the drilling has been completed. It is preferably done prior to putting the utility into service, to prevent the possibility of damage, however, Legacy Cross Bore Detection is also very useful if it was not completed at time of installation. Legacy detection is

Typically completed using CCTV. The sewer main lines and laterals are CCTV’ed beyond the limits of the directional drilling. The camera operator should be trained to look for cross bores and to call the utility immediately if a cross bore is located. It is very difficult to tell one utility from another as cross bores may be covered in mud or the material may be used by more than one type of utility.

Cleaning of the mainline sewer and/or laterals may be necessary. It is preferable that all cleaning is done prior to drilling, or at least before putting utility into use. If cleaning must be done after the utility is put in service, only non-cutting tools (Spinning nozzles, general cleaning nozzles) should be used to clean. Cutters and Penetrators can damage the utility and possibly spark.

Cross Bore Prevention/Detection is a National issue as more and more Utilities are using Directional Drilling to install their underground infrastructure.