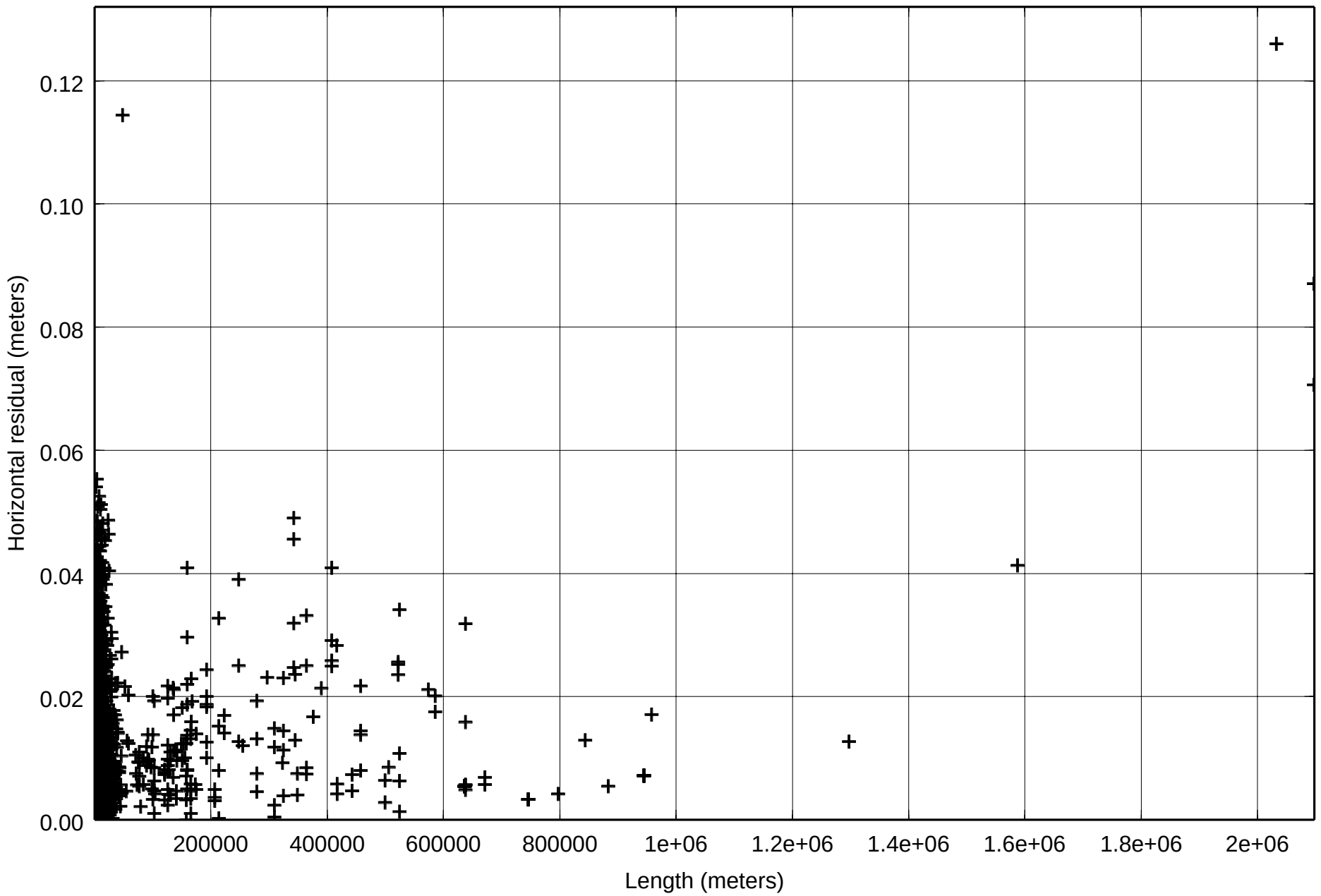SOUTH CAROLINA NORTH FINAL CONSTRAINED Horizontal Residuals