

## PERSONAL COMMUNICATION SERVICE (PCS) ANTENNA

Personal Communication Service (PCS) providers, or wireless carriers, such as AT&T, T-Mobile, Verizon, etc. are continually expanding and upgrading their network areas. This often times lead to providers utilizing existing structures to perform these services, which offers compliance with local government regulations and reduced costs associated with acquiring land and building an entirely new structure. These existing structures cover a wide range as the providers require anything that offers additional elevation above the ground, which can include electric transmission line structures, buildings, water towers, or smoke stacks.



DiGioia Gray has extensive experience reviewing PCS upgrades or new site requests to determine if the proposed loading is feasible. We begin with an initial review of these sites which includes gathering records, visiting the location, and comparing overall loading of the structure. If a full analysis is warranted, we create a complete PLS-CADD model of the transmission line section affected. We also create a detailed structure model for analysis based on structure design, erection, and detail shop drawings using PLS-TOWER or PLS-POLE depending on the specific structure. A structural analysis model is also created for all PCS equipment supports or frames in RISA-3D. This information is used to determine loading requirements and a detailed report is created including a structural analysis of the support structure and any required reinforcements, repairs, or replacements.

Once the initial review and any subsequent engineering are completed, DiGioia Gray can oversee the construction process. To accomplish this, we create a construction scope of work, material list, and detailed instructions and drawings for the field crew. We also complete material ordering, tacking, and inventory. A coordinated engineering/construction schedule will be maintained as we monitor the construction process. Finally a post construction review and project closeout will be conducted to complete the process.

## DIGIOIA GRAY LOCATIONS

PITTSBURGH, PA

MONROEVILLE, PA

PHILADELPHIA, PA

ROANOKE, VA

CHARLOTTE, NC

PHOENIX, AZ