



SERVICES PROVIDED BY GCI

- Engineering Analysis and Evaluation
- Value Engineering
- Recommendations for Remedial Action
- Peer Review Services

MAIN PROJECT ELEMENTS

- Design of Concrete Track Foundation
- Rail System Design
- Construction Documents Preparation
- Construction Support Services
- As-Built Plans Preparation

LAUNCH COMPLEX 40 (LC-40) MST RAIL SETTLEMENT CAPE CANAVERAL AIR FORCE STATION

In 1998 GCI provided Value Engineering Options/Recommendations services for mitigation of settlement-related disorders at the Launch Complex 40 (LC-40) Mobile Service Tower (MST) Tracks at the Cape Canaveral Air Force Station (CCAFS) in Brevard County, Florida. This work was performed under GCI's subconsultant agreement with AJT & Associates, Inc., the Technical Engineering Support Services Consultant for CCAFS.

Severe signs of wall cracking, jammed doors and other settlement-related disorders were observed after completion of rehabilitation work at the Complex Support Building (CSB), which is connected on the east and west sides to the 13 million pound Mobile Service Tower (MST) rails. The results of a periodic foundation settlement monitoring program showed a direct relationship between the parking cycles of the MST and continued settlement of the building and MST tracks, threatening future Titan rocket launches. The settlement impeded the movement of the MST.

The purpose of GCI's involvement was to review failed attempts by others to determine the possible cause(s) of the reported disorders and to provide recommendations for conceptual remedial measures to stabilize the existing MST track foundation system.

After implementation of GCI recommendations by AJT and Associates, it is estimated that the existing MST Tracks will last for as many as 90 loading cycles, enough to carry the existing facilities well beyond the end of the Titan rocket program.



CONSTRUCTION COST: \$2,600,000
COMPLETION DATE: March 1996