

PROJECT TITLE: Dry Docks 10 & 11 – Service Life Extension Project CONTRACT NO.: 4500126917 LOCATION: Northrop Grumman Newport News, Newport News, Virginia AWARD DATE: January 2003 **COMPLETION DATE:** August 2006 \$0-1 Mil ☐ \$1-5 Mil FINAL VALUE: \$5-10 Mil X \$10-20 Mil □ \$20-30 Mil □ \$30-40 Mil □ \$40-50 Mil □ \$50+ Mil TYPE OF CONTRACT: Fixed Price Cost Reimbursable

PROJECT DESCRIPTION:

The existing cell walls at Dry Docks 10 & 11 were failing due to splitting of the sheet pile interlocks. The dry docks were on the verge of losing their certification, so W. F. Magann Corporation and MMM Design Group formulated a design-build solution that involved encapsulating the existing walls with 5/16" thick steel plate. Before construction could begin, the dry dock walls had to be cleared of over five thousand linear feet of utilities. The interlocks in between the cells were then reinforced with 1-1/2" thick steel plate and the cells were wrapped with 5/16" thick steel plate. To complete encapsulation, the void between the walls was filled with grout and the utilities were replaced. To accomplish all of this, work was performed around the shipyard's docking schedules.

Due to strict width requirements for dry-docking aircraft carriers, tight gage tolerances between the plates had to be adhered to. The original contract included repairs to one hundred four (104) of the cell walls marked as critical and was finished on time and within budget. Due to the success of the design and construction, the owner increased our contract to include encapsulating the remaining cell walls.

The project was completed using 420 each 5/16" Thick x 48" W x 360" L steel plates, 3350 linear feet of 1-1/2" Thick x 11" W steel plate, and over 1300 cubic yards of grout. There was over twenty-five thousand linear feet of welding performed, consuming over thirty-eight thousand pounds of welding rods.



Cell walls before construction



Completed cell wall encapsulation