

# Variable Frequency Drive Renewal and Replacement Project

C800801  
WP U0332

# What does a VFD look like



In this picture a Variable Frequency Drive powering a Main Terminal Air Handling Unit fan running at 350 Horsepower

# The problem

- American Society of Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE) recommends a VFD life span of 10-12 years.
- 131 VFD's have outlived their useful life and are considered obsolete by ASHRAE standards.

This project was deferred in 2016

# Scope of work solution

- Replace the 47 oldest Variable Frequency Drives with this project in order to avoid failures.
- Salvage components from these 47 VFD's and add those components to the Port's spare parts inventory.

Extends the useful life of the 87 remaining obsolete VFD's

# Project schedule

- Start Design 3<sup>rd</sup> QTR 2017
- Request Commission Authorization for Construction 2<sup>nd</sup> QTR 2018
- Construction Starts 3<sup>rd</sup> QTR 2018
- In-Use Date 2<sup>nd</sup> QTR 2020

# Project Budget

- Design: \$2,025,000
- Construction: \$4,809,000
- Total Project: \$6,834,000

This request is for design authorization and budget