

MTS Building A - Communications & Electrical Improvements

MTS Building A, San Diego, CA Contract Number: 12-92-001.23-00511-S



VALUE DELIVERED

Paradigm installed a total of four Computer Room Split Systems and associated ductwork while working over and around live sensitive computer and data systems for the Metropolitan Transit District. The new units incorporated humidity control and included DDC control upgrade to the existing building management system. This project required an effective management and coordination of performance of multiple disciplines in an existing and operational facility without disrupting the daily operations. Paradigm's Quality Control & Safety programs were also effective tools in keeping to the owner's & project's commitments, while maintaining safe work conditions for both occupants and workers.

OBJECTIVES

- Provide and install four Computer Room AC Split Systems
- Provide humidity and temperature control critical to sensitive data server room environment
- Perform all work in an existing transit building with special attention safety around multiple active trolley tracks
- To support critical current and future business needs by increasing energy capacity and efficiency, and upgrading electrical service;
- To perform all work during regular business hours with minimal to no disruption of normal business operations

SOLUTIONS

- Install a temporary cooling set up for the data server room to allow for continuous cooling during construction
- Perform demolition and removal of existing equipment, piping, ductwork, controls, and electrical systems
- Installation of two (2) new Stultz and two (2) new Trane Computer Room AC Split Systems
- Installation of two (2) new Mitsubishi AC Split System

PUBLIC FACILITIES

SERVER ROOM

General Contractor

Keycon, Inc.

Architect

David Evans and Associates, Inc. 110 West A Street, Suite 1700 San Diego, CA 92101

Type

Plan & Specification

Start Date

October 2012

Year Completed

August 2013

Dollar Value

\$422,385.48

Customer Point of Contact

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Evaluation Rating Received OUTSTANDING

- $\overline{\mathbf{V}}$ Occupied Facility
- ☑ Mechanical Systems
- Computer Room Units $\overline{\mathsf{V}}$
- ☑ Accelerated Schedule
- ☑ Pipefitting/Welding
- ☑ Test and Balance
- ✓ Structural Work
- $\overline{\mathbf{V}}$ Demolition
- $\overline{\mathbf{V}}$ **Special Inspections**
- ☑ Extended Warranty

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Continued

- Install Polargy Air Curtain
- Install seismic restraints and isolators for each piece of HVAC equipment
- Install several new Smoke Fire Dampers
- Low voltage control upgrades & programming to incorporate all new equipment added into existing Building Automation system
- Sheet metal ducting modification and replacement work
- Extensive refrigerant piping for each split system
- Start-up and check-out of new HVAC equipment
- Certified air balancing
- Removal of temporary equipment at completion of new work
- Provide extended five (5) year warranty and preventative maintenance service on newly installed equipment

PROJECT SCOPE

The building required the upgrade of electrical systems inside the data server rooms for the San Diego Metropolitan District. As part of this upgrade, the cooling requirements increased significantly, calling for an upgrade of the mechanical systems as well. Paradigm's scope included the temporary cooling of the facility during construction, installation of new Computer Room AC Units, extensive ductwork and piping additions, controls systems upgrade, start up and test and balance.

SUSTAINABLE FEATURES

Paradigm provided comfort, energy efficiency (with a focus on operating cost), life cycle cost, indoor air quality and sound for the occupants. Several strategies were incorporated into the overall "Green" building movement as an integral part of creating synergy between environment, community and economy. LEED certifiable project.

Sustainable features included:

- Redirecting reusable materials to appropriate sites;
- Incorporating recycled content materials into construction process;
- Establishing a minimum indoor air quality performance for comfort and well-being of occupants;
- Utilizing low or no emitting VOC materials;
- Providing optimal thermal comfort for occupants; and
- Including controllability of systems.

PROJECT DELIVERY WITH "NO LOOSE ENDS"

Paradigm delivered a finished product by increasing productivity and efficiency when needed to help meet the required goals. We provided

- A Well defined scope
- Extensive early planning
- Good leadership, management and first line supervision
- Positive client relationship with client involvement
- Proper project team chemistry
- Quick response to changes
- Engineering managers concerned with the total project, not just the engineering elements

In managing the project, Paradigm made sure that all details were completed effectively and efficiently. We were actively involved from development & design of plans through equipment start up and continue to maintain the new equipment today.

ABOUT PARADIGM MECHANICAL CORP.

Paradigm Mechanical Corp. is a Woman-Owned Small Business located in San Diego County. Our principals have over 100 years of combined industry experience. We specialize in working with project teams to design and build for government, commercial and industrial facilities in the Southern California region.

Paradigm by definition means "A clear example or model on which all others are based". At Paradigm, we work hard to ensure we live up to our name and perform accordingly.

