

Parking Garage Electronic Vehicle Charging Installation

City of Charlotte, NC



The City of Charlotte's primary goal was to add 50 Level 2 and 1 DC Level 3 fast charging station(s) to the 4th and 5th floors of the Charlotte/Mecklenburg Government Center's main parking facility to supply their new electric vehicle fleet. Our team upgraded the existing service to 1,200 amp 480/277v and replaced the old 150kVa transformer with a new 750kVA transformer. The facility remained operational throughout the project's duration.

This project was coordinated closely with Duke Energy and Sustainability (which has a goal for the entire city fleet and their facilities to be fueled 100% by zero-carbon sources by 2030). The project had multiple planned after hour and holiday shutdowns to install critical pieces of energy infrastructure.

Lump Sum General Contracting Services Provided

- *Project management and administration through project leadership and overall team coordination*
- *Interdisciplinary coordination*
- *Review of codes and standards*
- *Identify opportunities for economy of scale*
- *Value analysis services, value engineering and offer cost savings suggestions and best value recommendations*
- *Project planning and scheduling*
- *Constructability studies and reviews*
- *Construction cost models, estimates based on market-place conditions, and cash flow development and analysis*
- *Coordination of contract documents*
- *Provide record documents and drawings*
- *As the design builder we assume the risk of delivering the Project and responsibility for all construction means and methods*
- *Design adjustments during construction phase*

Helping our partners and client meet their goals!

Budget Study

- Contract = \$1,151,501
 - Final cost = \$1,324,22
- *Devation - A change from our quoted charging station manufacturer to the Owner's preferred manufacturer.

Supply Chain Challenges

Duke was unable to obtain the transformer as originally scheduled due to shortages. Our team utilized on-the-fly phasing and schedule manipulation to use the existing transformer until Duke could procure the new one.

Parking Garage was operational and highly trafficked.

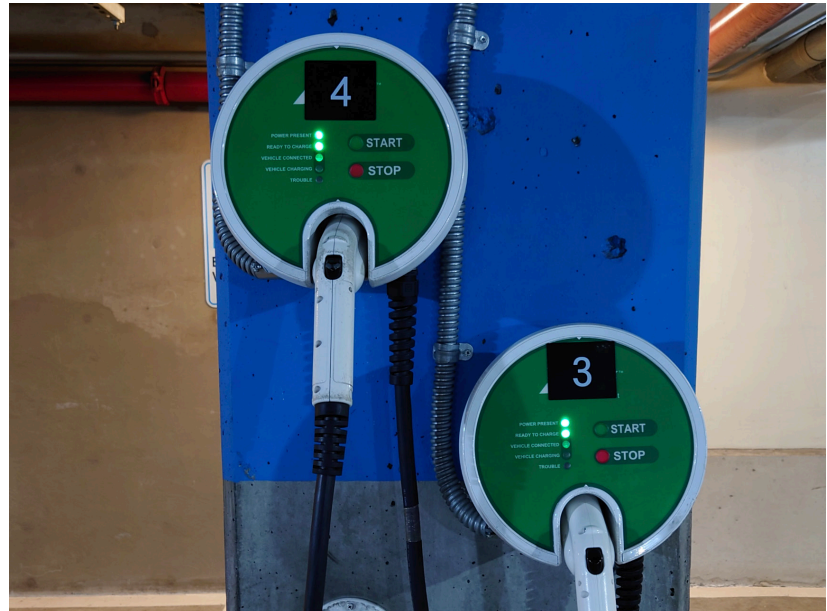
The facility was operational and highly trafficked. We used traffic control barriers to guide pedestrian traffic and utilized planned and coordinated power shutdowns to minimize facility disruption.

References

Joe Bumgardner, ATOM Engineering

704-813-7432

jbumgardner@atomengineering.com

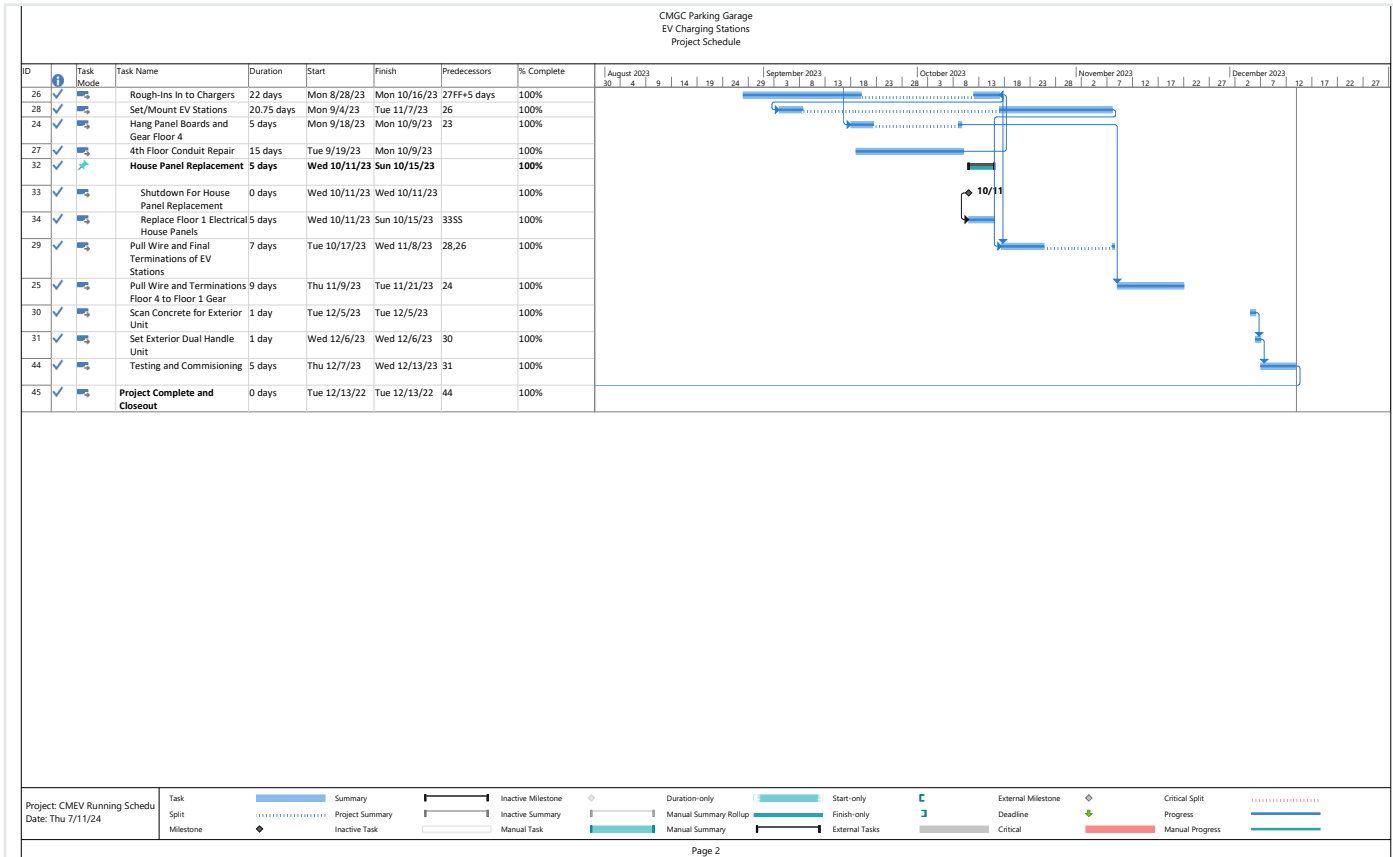
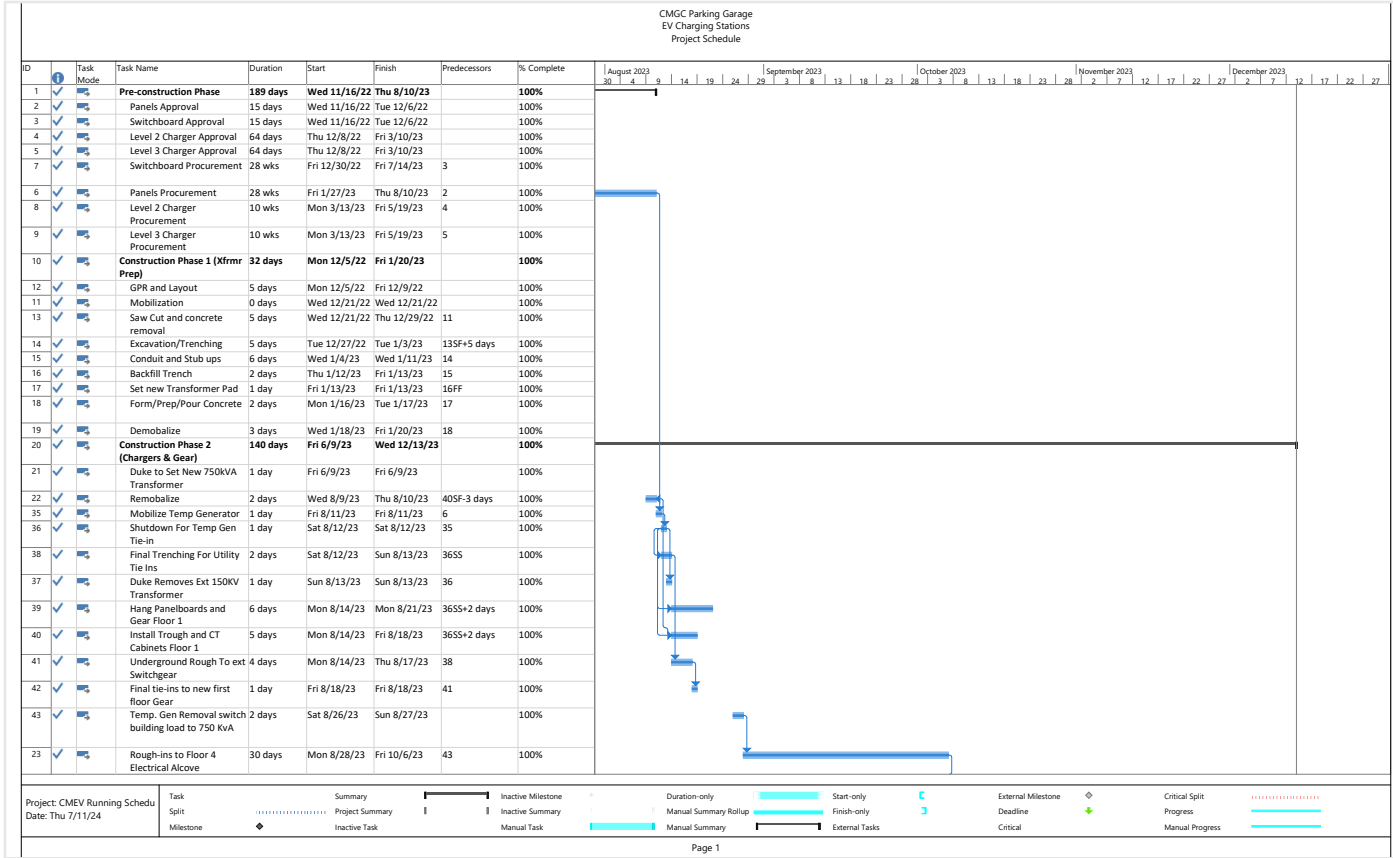


“During this project, Miles-McClellan was not only an absolute pleasure to work with but their team was relentless in their pursuit of bringing the project’s vision to life. Ryan, Steve, Sinh, and the rest of their team were constantly available and collaborative. Problems were solved swiftly and easily. Nights, weekends, it didn’t matter. Whatever the project needed, they made it happen. I would work with Miles-McClellan again in a heartbeat.”



Joe Bumgardner
Engineer of Record
ATOM Engineering

Project Schedule: November 2022 - December 2022





E-MOBILITY

Charlotte City Council approves 25 EV Charging Stations for government parking deck

At present, the city's EV fleet comprises 63 vehicles. And another 55 EVs will be added under the 2023 budget

The Charlotte City Council in North Carolina approved a \$1.15 million contract with Miles-McClellan Construction Company to purchase and install 25 EV charging stations at the Charlotte-Mecklenburg Government Center parking deck on Davidson Street.

The charging stations will be installed on the fourth and the fifth levels of the parking deck and serve the city's growing EV fleet. The installation is expected to be complete in late 2023.

At present, the city's EV fleet comprises 63 vehicles. And another 55 EVs will be added under the 2023 budget. This will increase the total number of EVs budgeted, planned or in service to 174. The city also intends to add an all-electric fire station and electric fire truck.

Charlotte is where the Energy Transition is happening...

And the inaugural T&D World Conference & Exhibition at the Downtown Sheraton starting Wednesday through Friday

Registration still open and Discounts for Utilities

The installation on the parking deck – the largest charging project in the city – will have enough ports to charge 49 vehicles, simultaneously. With this new installation, the total number of EV charging stations in the city will increase to 130. A total of 50 of the stations are open to public.

Funding for the project is derived from bonds and debt financing through the city's Capital Investment Plan. The project supports the City of Charlotte's Strategic Energy Action Plan of fueling fleet and facilities in the city by 100% zero-carbon sources by 2030.

From: Williams, Richard <Rich.Williams@charlottenc.gov>
Sent: Friday, August 11, 2023 10:01 AM
To: Joseph Bumgardner; Taylor, David; Sabha, Ahmad "Sabha"; Steve Parsons; Ryan Boltz; Gucciardi, Steve; Joseph Dail; Cishek, Kathleen; Prutzman, Billy; Bolick, Heather; Bost, Johnny; Mrzygod, John
Subject: RE: [EXT]Re: OAC Meeting Minutes 08/02/2023

[CAUTION: EXTERNAL SENDER]
EV Project Team,

I would like to express my appreciation for the perfect execution of the generator installation in the CMGC garage. Needless to say, I was nervous about it. Your team's competence and attention to detail ensured a seamless process, with minimal disruption to our operations and zero equipment damage. I am truly grateful for your expertise.

Special thanks to David Taylor for overseeing this aspect of the job and ensuring this went as planned.

Appreciated.

Rich Williams, RPA, FMA, LEED EB

Property Manager at Charlotte-Mecklenburg Government Center

General Services

600 East 4th Street | Charlotte, NC 28202

Off: (704) 432-4350 | Cell: (980) 264-9391 | Alt. Cell: (703) 932-9677 (Preferred) Rich.Williams@charlottenc.gov | charlottenc.gov

