



## Electric Vehicle (EV) Charging Qualifications

For over 36 years Arora Engineers (Arora) has concentrated on the Aviation industry as a core client, and during this time we have challenged ourselves to rethink the role of the traditional engineering firm. As a result, we've evolved our practice to emphasize the technology and processes that provide communication and interoperability between land and asset infrastructure-based systems to improve operations, performance, and longevity and make life safer and easier for those who use it. The firm employs 200+ staff members in 13 offices across the nation.

We are airport people who understand that aviation facilities are among the most complex and dynamic environments for systems design. Continuously evolving user needs, security concerns, and technology demands that airport system architectures be open to facilitate change, as well as the exchange of information with users and other systems. Arora consistently ranks amongst the top airport engineering firms, earning #6 on Building Design+Construction's (BD+C) 2021 Airport Sector Giants list, and ranking overall as #27 on BD+C's 2021 Giants 400 report.

Arora's national engineering practice is built on the principles of quality, innovation, and hyper-responsiveness, and includes not only electrical, but special systems and communications, mechanical, plumbing, and airfield electrical. From the initial design process, bid services, and cost estimation to construction and ongoing facility maintenance and management, Arora's team of professionals is equipped to address any problem, and most importantly, to find the right solution. Our team can plan and design, as well as perform construction management, inspection, and master systems integration services (MSI) to provide a complete EV program solution.

Arora has provided Electric Vehicle (EV) charging station electrical infrastructure design for clients across the country. One example of our EV charging experience is our engineering services for the installation of 24 new electrical vehicle charging stations at the Philadelphia International Airport garages, and other various garages in center city Philadelphia locations in conjunction with the Philadelphia Parking Authority. Services included generation of the EV charging station installation Basis of Design documents, field investigations of the various locations to determine the adequacy of available power supplies, assessment of the proposed locations for constructibility issues, and analysis of cellular connection capabilities for EV charging station wireless payment interface. Design and construction phase services included load calculations, EV charging station layout, engineering design, preparation of drawings and specifications, and construction cost estimates. Additionally, Arora has provided EV charging station design as electrical Infrastructure for ATL and their new West Parking Garage as well as numerous other projects.

*See selected project experience on back*



# Selected Project Experience



## ◀ Philadelphia Parking Authority, Electric Vehicle Charging Stations, Philadelphia, PA

Provided engineering design services for twenty four Level II EV charging stations at the PHL airport and other various garages in center city Philadelphia locations in conjunction with the Philadelphia Parking Authority. Design services included generation of the EV charging station installation Basis of Design documents, field investigations of the various locations to determine the adequacy of available power supplies, assessment of the proposed locations for constructibility issues, and analysis of cellular connection capabilities for EV charging station wireless payment interface.



## ◀ Allegheny County Airport Authority – Multimodal Center/Consolidated Rental Car Facility, Pittsburgh International Airport, Pittsburgh, PA

The TMP Landside projects include a new, billion-dollar 700,000 SF terminal that consolidates ticketing, security checkpoints and baggage claim, and multimodal complex that includes a new 3,300-space parking garage connected to the Landside Terminal by two pedestrian bridges, rental car facilities and entrance roadways designed to improve the passenger experience. Arora's scope of work included the Parking Garage electrical distribution and equipment/system power connections to provide a fully functional electrical system including thirty three Level II EV charging stations. Arora was also responsible for the coordination of Charger equipment and installation.



## ◀ Port Authority of New York and New Jersey, New Terminal One, John F. Kennedy International Airport, Queens, NY

Arora is providing professional engineering and project controls services to the Carisle Development team for the construction of the new Terminal One at John F. Kennedy International Airport (JFK). Arora's scope of work includes a 1200KW Level 3 EV charger system that we are specifying, a 1000KW Level 3 Electric Bus Charging system as well as the 2000KW eGSE Level 3 system for 120 vehicles.



## ◀ City of Atlanta, Domestic Terminal Parking Decks Reconstruction & Replacement, West Parking Deck, Hartsfield-Jackson Atlanta International Airport, Atlanta, GA

As part of the Joint Venture Team, Arora provided electrical (power and lightning) design services for the West Parking Deck to provide additional parking for approximately 6,000 vehicles. Arora's scope of work included EV charging station design and electrical Infrastructure as well as coordination of Electric Vehicle equipment and installation.



## ◀ City of Atlanta, Facility, Asset Management and Sustainability (FAMS) On-Call, Hartsfield-Jackson Atlanta International Airport (ATL), Atlanta, GA

Arora was subcontracted to provide engineering assessment and planning services to the Haley Aldrich Jacobsen Daniels Joint Venture team in the development, support, and implementation of programs in support of ATL's 100% Renewable Energy Plan. Tasks under this on-call agreement included electrical engineering services for EV charging station telemetrics, as well as an electrical evaluation and interior electrical routing services for an EV charging station infrastructure plan. Arora reviewed existing electrical infrastructure conditions and facilities and provided schematics of electrical utilities and provided plans for EV charging station options and locations with strategic 'smart growth' and design for future installations and anticipated parking demand considerations. In addition, our team provided a review of existing electrical infrastructure near two re-charger locations that could accommodate future electric shuttle buses.

