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**DOTE Detailed Design Guidelines for Electric Vehicle Charging Stations in the Public Right-Of-Way  
Including  
General Right-Of-Way Permit Process Description**

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Director: John S. Brazina Date: 1/2/25  
John S. Brazina, PE

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Pursuant to the management authority of the Director of the Department of Transportation and Engineering, (DOTE), over City streets under Article 5 of the Cincinnati Administrative Code and in accordance with State of Ohio law, the Director hereby adopts the attached Detailed Design Guidelines for Electric Vehicle, (EV), Charging Stations in the Public Right-Of-Way, effective January 2, 2025.

Please note that DOTE may from time-to-time develop and publish new or additional permit application forms, checklists, informational handouts, and other related materials. To avoid unnecessary delays in application processing, applicants are strongly encouraged to contact DOTE before submittal to ensure that the applicant has consulted all the most up-to-date requirements.

Persons with comments or questions concerning these Design Guidelines should contact the following City Staff:

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**DOTE Detailed Design Guidelines for Electric Vehicle, (EV), Charging Stations in the Public Right-Of-Way**

**Part I: Introduction**

The City of Cincinnati recognizes a need to facilitate public access to dedicated on-street Electric Vehicle, (EV), Charging Stations located within the public right-of-way. The City’s Department of Transportation and Engineering, (DOTE), is the City agency that promotes and ensures public safety through the stewardship and administration of the design, construction, installation, and maintenance of all public right-of-way infrastructure. As part of DOTE’s mission, these Detailed Design Guidelines were developed for the purpose of facilitating the safe and accessible implementation of EV Charging Stations in the Public Right-Of-Way.

**Part II: General Information and Requirements**

**Section 1: References, Acronyms, and Definitions, (listed in alphabetical order)**

- A. **Agreement** – All references hereafter to “Agreement” refer to the Professional Services Contract between the City and an approved private Contractor providing the legal framework for the installation of EV Charging Stations in the City’s rights-of-ways.
- B. **Applicant** – All references hereafter to “Applicant” refer to the City approved and contracted EV Charging Station Owner / Operator that is authorized by the City to provide EV Charging Stations within the public right-of-way.
- C. **B&I** – All references hereafter to “B&I” refer to the City of Cincinnati’s Department of Buildings and Inspections.
  - B&I is the City agency responsible for administering the enforcement of established, adopted building codes and City ordinances. For the purposes of these Design Guidelines, B&I will provide permit review and approval of charging equipment.
- D. **CAGIS** – All references hereafter to “CAGIS” refer to the Cincinnati Area Geographic Information Systems available at [CAGIS On-Line](#).
- E. **City** – All references hereafter to “City” refer to the City of Cincinnati, Ohio, a State of Ohio municipal corporation with offices located at 801 Plum Street, Cincinnati, OH 45202.
- F. **CMC** – All references hereafter to “CMC” refer to the City of Cincinnati Municipal Code.
- G. **Collector Strip** – All references hereafter to “Collector Strip,” “Tree Lawn,” and/or “Sod Strip” refer to that area of the sidewalk located between the back of curb and the front of the concrete walk providing the clear pedestrian path of travel.
- H. **Contractor** – All references hereafter to “Contractor” refer to a contractor, licensed by DOTE to perform work in the public right-of-way, that has been hired by the Applicant to act as the Applicant’s authorized approved agent to apply for all City permits as required and to perform the required work in compliance with all City approved permits.

- I. **DOTE / Department** – All references hereafter to “DOTE” or to the “Department” refer to the City of Cincinnati’s Department of Transportation and Engineering.
  - DOTE is the City agency responsible for administering the receipt and processing of applications for constructing and installing EV Charging Stations facilities in the City’s rights-of-way.
  
- J. **Equipment** – All references hereafter to Equipment refer to the EV Charging Station Charging Equipment including the equipment enclosure, footing / foundation pier, and foundation plinth.
  
- K. **EV** – All references hereafter to “EV” refer to Electric Vehicle, including all vehicular modes of transportation that utilize a battery to supply power to an electric motor for the purpose of both vehicle operation and propulsion.
  
- L. **EV Charging Stations** – All references hereafter to EV Charging Stations refer to the private infrastructure to be installed for the purpose of publicly accessible Electric Vehicle Charging, complete including on-street parking spaces, charging equipment, etc.
  
- M. **IBI** – All references hereafter to “IBI” refer to the City of Cincinnati’s contracted electrical inspection service provider, Inspection Bureau, Inc.
  - IBI is City contracted agency responsible for administering the enforcement of established and adopted electrical codes.
  
- N. **OES** – All references hereafter to “OES” refer to the City of Cincinnati’s Office of Environment and Sustainability.
  - OES is the City Department responsible for providing the Applicant, (EV Charging Station Owner / Operator), with the required regulatory authorization to provide, operate, and maintain EV Charging Stations in the public right-of-way through execution of a City Agreement, (Professional Services Contract).
  
- O. **Parking Services** – All references hereafter to “Parking Services” refer to the City of Cincinnati’s Parking Facilities Division of the Department of Enterprise Services.
  - Parking Facilities is the City agency responsible for managing the City’s on-street parking assets.
  
- P. **Staff** – All references hereafter to “Staff” refers to any City of Cincinnati employee from any City department or agency.

**Section 2: Referenced Standards**

- A. All right-of-way work shall be furnished and placed in compliance with the following general standards for construction in the public right-of-way, (listed alphabetically):
  1. All applicable local, state, and federal codes and regulations.
  2. All EV Charging Station equipment manufacturer’s installation, operation, and maintenance instructions, recommendations, and specifications.
  3. All EV Charging Station industry standards.
  4. American Association of State Highway and Transportation Officials; (AASHTO), Standards and Guidelines, (latest edition).

5. City of Cincinnati Right-Of-Way Standards:
  - a. DOTE Curb Ramps Design Guidelines and Policy, Standard Drawings and Specifications, (latest edition).
  - b. DOTE Sidewalk Regulations Book, (latest edition).
  - c. DOTE Standard Drawings, (latest edition).
  - d. DOTE Street Restoration Manual, (latest edition).
  - e. DOTE Traffic Engineering Division, Standard Traffic Signals & Street Lighting Construction Drawings, (latest edition).
  - f. DOTE / City of Cincinnati Supplement to the ODOT CMS, (latest edition).
2. Federal Highway Administration, (FHWA), applicable manual rules and regulations, including street designation restrictions.
3. Ohio Electric Code / National Fire Protection Association 70 National Electric Code; (NFPA-70 NEC), including article 625, (latest edition).
4. One-Call Utility Protection Service, (OUPS), as per Ohio ORC 3781.25-.32.
5. State of Ohio Department of Transportation, (ODOT), Construction and Material Specifications, (CMS), (latest edition).
6. State of Ohio Administrative Code Chapter 3335-21 Traffic & Parking Rule-14.
7. United State Administrative Code Access Board:
  - a. Americans with Disabilities Act Accessibility Guidelines, (ADAAG), (latest edition).
  - b. Architectural Barriers Act, (ABA), Accessibility Standards applicable to facilities designed and built with federal funds, (latest edition).
  - c. Design Recommendations for Accessible Electric Vehicle Charging Stations, 07.17.2023, (latest addition).
  - d. Public Right-Of-Way Accessibility Guidelines, (PROWAG), (latest edition).

- **Section 3: Permitting Procedure Outline**

- A. Applicant Authorization:
  1. This initial stage provides the Applicant with the legal standing to participate in the City's EV Charging Station in the Public Right-Of-Way program and implementation process.
  2. See Part III – Applicant Authorization for more information.
- B. Preliminary Design Guidelines:
  1. Preliminary Design Guidelines provide the criteria for the preliminary project site selection.
  2. See Part IV – Preliminary Design Guidelines & Pre-Application & for more information.
- C. Preliminary Pre-Application:
  1. Pre-Application is to facilitate the assessment of proposed installation sites via a more informal process prior to proceeding to the formal permit application stage.
  2. See Part V – Preliminary Pre-Application Requirements & Procedures & for more information.
- D. Public Engagement Plan:
  1. The Public Engagement Plan provides the mechanism for abutting property owners to review the proposed installation and provide feedback prior to proceeding to the formal permit application stage.
  2. See Part VI – Public Engagement Plan for more information.
- E. Detailed Design Guidelines:
  1. More specific and encompassing Detailed Design Guidelines will largely govern the preparation, review, and approval of final design and construction document plans and specifications.
  2. See Part VII – Detailed Design Guidelines for more information.

- F. Permitting:
  1. Permitting outlines and describes the formal process and requirements for Permit Application submittal, review, and approval.
  2. See Part VIII – Permitting for more information.
- G. Post Permitting:
  1. A framework outline for construction, operation, and maintenance once permits are approved and issued.
  2. See Part IX – Post Permitting for more information.

**Part III: Applicant Authorization**

- **Section 1: General Information**
  - A. Before proceeding, the Applicant, (EV Charging Station Owner / Operator), must possess the legal standing and authority to provide and install EV Charging Stations in the Public Right-Of-Way.
- **Section 2: City Authorization Agreement – Executed Professional Services Contract**
  - A. OES must provide the Applicant with the required regulatory authorization through execution of a City Agreement, (Professional Services Contract).
  - B. Only City authorized and contracted EV Charging Station Owner / Operators and their Contractors, may submit applications for the purpose of obtaining all required permit approvals.
- **Section 3: Authorization Documentation**
  1. The Department may request verification of valid City approved authorization at any time.
  2. The authorized Applicant shall provide the following information to the Department:
    - a. Applicant’s contact information.
    - b. Applicant’s Contractor(s) contact information.

**Part IV: Preliminary Design Guidelines**

The Preliminary Design Guidelines provide the general criteria for obtaining preliminary site selection approval.

- **Section 1: Preliminary Design Guidelines**
  - A. Site Selection Criteria:
    1. Locate EV Charging Stations where 24-hour parking is permitted, (where no traffic control / curb control parking restrictions exist, including peak hour parking restrictions and limited parking times).
    2. Locate EV Charging Stations near intersections where accessible curb ramps exist or may be constructed.
    3. Placement should maximize station visibility.
      - a. Selecting the first legal parking space after the intersection should be prioritized, where feasible.
    4. EV Charging Stations may only be located where traffic control or curb control parking restrictions exist, including loading zones, etc., upon DOTE review and approval of proposed restriction modifications.
    5. EV Charging Stations may shall not directly obstruct, obstruct access to, or cause conflict with the following:
      - a. Transit facilities including transit stops, streetcar routes, on-street bicycle facilities, etc.
      - b. All-pedestrian clear paths of travel.

- c. All public and private utilities and emergency facilities, including fire hydrants, standpipes, etc., and/or facility operations.
  6. Residential Areas:
    - a. Locating EV Charging Stations in Multifamily Districts, Neighborhood Business Districts, and Auto-Oriented Commercial Districts is preferred. Locating EV Charging Stations in single-family residential districts is discouraged but will be evaluated on a case-by-case basis.
    - b. In general, every attempt should be made not to place new EV Charging Stations directly in front of houses.
    - c. Where possible, locate EV Charging Stations at property lines in coordination with designated on-street parking spaces.
  7. Building Access Restrictions:
    - a. Do not locate EV Charging Stations in front of doors and/or windows whenever possible.
  8. Historic or Architecturally Significant Structures and Spaces.
    - a. EV Charging Stations may not be placed directly in front of any historic or architecturally significant structure, civic space, or park entrance.
  9. Environmental and Cultural Assets:
    - a. The Department reserves the right to deny the location of new EV Charging Stations in existing clear view corridors and/or in prominent or highly visible locations associated with environmental and/or cultural assets.
- B. Additional Design Standards:
  1. Reference also, Part VII – Detailed Design Guidelines for more information for additional specific design requirements and restrictions which may influence site selection.

## Part V: Preliminary Pre-Application Requirements & Procedures

The Pre-Application process provides a mechanism for both the Applicant and Staff to facilitate the assessment of proposed installation sites prior to starting the more formal permitting process.

- **Section 1: Pre-Application Requirements**

- A. General Information:
  1. Utility Service Coordination and Availability.
    - a. Prior to pre-permit application submittal, the Applicant shall perform required utility due diligence investigations and coordination as needed with all local utility service providers, specifically including Duke Electric to determine that the making of utility service connections is possible.
  2. All proposed EV Charging Station installation locations within the public right-of-way shall be submitted to DOTE for Preliminary Pre-Permit Application Review, Comment, and Approval.
  3. Preliminary Review is performed by DOTE in coordination with Parking Facilities.
  4. Preliminary Pre-Application approval is required prior to advancing to the Public Engagement Plan and Permitting stages.
  5. Preliminary Approval **shall not** be considered approval to initiate construction work of any type on the street.

- **Section 2: Pre-Submittal Conference(s)**

- A. General Information:

1. Upon request, DOTE offers pre-submittal conferences to meet with potential applicants and discuss possible projects on a conceptual, preliminary planning level. The conference is intended to create an informal forum in which applicants and the Department can discuss items such as site conflicts, site restrictions, accessibility issues, aesthetic and/or historic preservation concerns, or other problems that should be addressed as soon as possible to avoid any unnecessary delays in the processing of an application and deployment of EV charging facilities in the City.
2. An appointment is required for all pre-submittal conferences. Department staff may establish regular hours at which appointments are available. Department staff will endeavor to provide applicants with an appointment within approximately five (5) business days after receipt of a written or email request. Each conference is generally limited to discussion of a single potential project, but applicants may request to discuss multiple projects provided that the additional time required does not prejudice other applicants' ability to obtain an appointment.

- **Section 3: Preliminary Pre-Application Submittal Requirements**

- A. General Submittal Requirements:

1. Applicant identification and contact information.
2. The proposed installation address, (address of the adjacent / abutting private property parcel).
3. Documentation of preliminary utility coordination and service availability, including:
  - a. Applicant letter acknowledging that preliminary utility coordination has been performed and that required underground electric service is available..
4. The proposed number of EV Charging Stations.
5. The proposed equipment description and specifications, including:
  - a. Equipment manufacturer's identification and contact information.
  - b. Equipment model number.
  - c. Equipment physical dimensions, including without limitation height, width, depth and weight with mounts and other necessary hardware.
  - d. Ambient noise level generated from the equipment if any.
6. The proposed number of on-street parking spaces required.
7. Existing Site Plan – A CAGIS map-based diagram layout, including:
  - a. Both sides of the street.
  - b. The intersection and both sides of all intersecting streets as applicable.
  - c. The existing on-street parking layout.
  - d. Existing traffic control and curb control sign locations and sign type identification including posted time restrictions, (time limits, street sweeping, loading zone, etc.).
  - e. Existing parking meters, mobile parking payment signs, pay for parking kiosks.
8. Proposed Site Plan – A CAGIS map-based diagram layout, including:
  - a. Both sides of the street.
  - b. The intersection and both sides of all intersecting streets as applicable.
  - c. The proposed on-street parking layout.
  - d. The proposed location of the EVSE charging station unit(s).



- e. Dimensions showing accessibility compliance, including the required clear pedestrian path abutting the Charging Unit.
- f. Dimensions showing off-set compliance.
- g. Proposed removals, modifications, and/or relocations of traffic control and curb control signs, including locations and sign type identification with posted time restrictions, (time limits, street sweeping, loading zone, etc.).
- h. Proposed removals, modifications, and/or relocations of parking meters, mobile parking payment signs, pay for parking kiosks.

B. Pre-Application Submittal Procedures:

- 1. The Applicant / Contractor application for Preliminary Site Review shall be submitted to the Department in compliance with DOTE Permit & License Center rules and regulations at:

<ul style="list-style-type: none"> <li>a. <a href="#">DOTE Permit &amp; License Center</a></li> </ul> <p>City Hall – Room 425 801 Plum Street Cincinnati, Ohio 45202</p>	<p>Days: Monday through Friday Times: 8:00 AM – 4:00 PM ET Tel: 513.352.3463 Fax: 513.352.5397 E-Mail: <a href="mailto:row.permits@cincinnati-oh.gov">row.permits@cincinnati-oh.gov</a></p>
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**Section 4: Preliminary Pre-Permit Application Submittal Actions**

A. Additional information:

- 1. The City reserves the right to require additional information, including Visual Simulations, for any proposed site installation that presents unusual conditions or that is likely to create community concern.
- 2. The City reserves the right to request that the Applicant help to identify readily available and technically feasible alternative sites for any proposed installation location.
  - a. The Applicant shall prepare alternative existing and proposed site plan diagrams as required in support and coordination with any such request.

B. Preliminary Pre-Permit Application Submittals will receive one of the following review assessments:

- 1. Approval / No-Objection.
- 2. Conditional Approval / No-Objection with Conditions.
- 3. Objection / Denial.

C. Criteria for Approval / No-Objection:

- 1. DOTE shall review all proposed sites for preliminary compliance with the following:
  - a. Preliminary pre-permit application submittal requirements.
  - b. Preliminary Design Guidelines.
  - c. Preliminary Parking Services’ approval requirements.
  - d. Federal, state, City and DOTE rules, regulations, policies, and standards.

D. Criteria for Conditional Approval / No-Objection with Conditions:

- 1. Notwithstanding any other provisions in these Guidelines, and consistent with all applicable federal laws and regulations, the Department may determine a conditional approval an application when it finds that the proposed project:
  - a. Meets the requirements for approval upon the inclusion of conditions provided by Staff.

E. Criteria for Denial / Objection:

1. Notwithstanding any other provisions in these Guidelines, and consistent with all applicable federal laws and regulations, the Department may deny an application when it finds that the proposed project:
  - a. Does not satisfy the criteria for approval, including:
    - Does not provide compliance with preliminary pre-permit application submittal requirements.
    - Does not provide compliance with the Preliminary Design Guidelines.
  - b. Does not satisfy Parking Services criteria for approval.
  - c. Violates any legally enforceable standard or permit condition reasonably related to public health and safety and welfare.

F. Pre-Application Review Written Decision:

1. The Department shall have **15 business days** from the submittal receipt date to complete the Pre-Application Submittal Review and return a Written Decision to the Applicant.
  - a. Exception – This time period shall be extended as required to accommodate an Applicant’s request for a Pre-Submittal Conference.
2. In the event that the Department determines that the proposed application does not qualify for approval, the Department will send written notice to the applicant that includes the reasons to support the Department’s decision.

**Section 5: Next Steps**

- A. Following are the Applicant’s next steps upon receipt of the Preliminary Pre-Application review assessment for each proposed installation site:
  1. For sites receiving Approval / No Objection or Conditional Approval / No-Objection with Conditions:
    - a. Public notification process, see Part V – Public Engagement Plan.
    - b. Final utility coordination, including the provision for electric service.
    - c. Final EV Charging Station design.
    - d. Construction document plans and specifications.
    - d. Permit Application preparation and submittal.

**Part VI: Public Engagement Plan**

The intent of the required focused and limited public notification process is to inform property owners and business owner / operators nearest to the proposed EV Charging Station installation sites of the imminent improvements and to allow them the opportunity to make inquiries.

- **Section 1: Proposed Improvement Notification Process**

1. The Applicant shall utilize an approved DOTE post card to notify property owners and business owner / operators within 100’ of a proposed EV Charging Station installation site:
  - a. Mid-Block Installations: 100’ in each direction from the site, including both sides of street.
  - b. Installations Near Intersections: 100’ in all four directions from the site, (main street, cross street), including both sides of each street.
  - c. Cul-de-sac Installations: 100’ from location of the site, including both sides of the street.
2. Additionally, the Applicant shall notify the Community Council organization representing the neighborhood in which the proposed EV Charging Station installation site will be located.
  - a. Community Council Organizations contact information for each neighborhood can be found at [Community Council Directory](#)

3. It's recommended that the Applicant obtain a Community Council letter of support for each EV Charging Station installation site.
4. The Applicant shall provide a copy of all notifications and letters of support to DOTE, (refer to Part V, Public Engagement Plan; Section 3 – Permit Application process).

- **Section 2: Public Opposition / Conflict Resolution**

1. The Applicant is responsible for resolving all public opposition and conflicts.

**Part VII: Detailed Design Guidelines**

Upon receiving Pre-Application approval of a proposed site, and completion of the required public engagement and utility coordination due diligence, the following Detailed Design Guidelines will largely govern the final design of EV Charging Stations including construction document plans and specifications as required for permit submittal, review, and approval.

- **Section 1: Site Design & Offset Requirements**

A. EV Charging Station Dedicated On-Street Parking Spaces:

1. Locate dedicated on-street parking spaces in compliance with the following Offset Spacing Standards:
  - a. **30'-0" Offset Distance** from the front or rear of a parking space to the start of an intersecting street curb radius or a stop line pavement marking where provided.
  - b. **20'-0" Offset Distance** from the front or rear of a parking space to the start of a Cincinnati Fire Department Station driveway apron flare.
  - c. **20'-0" Offset Distance** from the front or rear of a parking space to a crosswalk pavement marking line.
  - d. **10'-0" Offset Distance** from the front or rear of a parking space to the start of a commercial or residential driveway apron flare.
  - e. **10'-0" Offset Distance** from the front or rear of a parking space to the centerline of a fire hydrant.
  - f. **5'-0" Offset Distance** from the front or rear of a parking space to the centerline of a fire hydrant.

B. EV Charging Station Equipment Placement:

1. Locate and install EV Charging Station Equipment in the Sidewalk Collector Strip, Tree Lawn, or Sod Strip area.
2. Equipment ancillary to the charging dispenser may be located outside the collector strip upon review and approval.

C. EV Charging Station Equipment Offset Spacing Standards:

1. Locate EV Charging Station Equipment in compliance with the following Offset Spacing Standards:
  - a. **30'-0" Offset Distance** from the Equipment centerline to the start of an intersecting street curb radius, and/or a Stop Line / Stop Bar pavement marking centerline.
  - b. **15'-0" Offset Distance** from the Equipment centerline to Street Tree centerlines. Avoid removing street trees. Street tree removal requires City of Cincinnati Park Board approval. Appeals to remove street trees shall be made to the Park Board, Division of Natural Resources, Urban Forest Management Section.

- c. **10'-0" Offset Distance** from the Equipment centerline to curb ramp flares, driveway apron flares, fire hydrant centerlines, post top light pole centerlines, streetlight pole centerlines, stormwater Inlets, (nearest edge), traffic signal pole centerlines, and traffic control and/or curb control sign centerlines.
- d. **8'-0" Offset Distance** from the sidewalk facing backside of the Equipment to the back of walk right-of-way line / property line within the CBD, (Central Business District). DOTE reserves the right to require additional clearance at specific locations or under specific conditions.
- e. **5'-0" Offset Distance** from the sidewalk facing backside of the-Equipment to the back of walk right-of-way / property line within all districts except for the CBD. DOTE reserves the right to require additional clearance at specific locations or under specific conditions.
- f. **5'-0" Offset Distance** as required to provide user operational access in compliance with DOTE and PROWAG standards from all Equipment sides to the nearest edge of tree wells, fixed planters, and vertical obstructions, including US Post Office mailboxes, and to the centerline of all underground utility lines and boxes, including cable, fiber, gas, telephone, sanitary sewers, and stormwater sewers lines.
- g. **2'-0" Offset Distance** from the face of curb to the street face of the Equipment.

- **Section 2: EV Charging Station Signing**

- A. All new signs shall be designed installed in compliance with the following DOTE Sign Standards:
  - 1. Traffic Control / Curb Control Signs indicating "EV Charging" shall comply with the FHWA Manual on Uniform Traffic Control Device, (MUTCD), and DOTE standards.
  - 2. EV Charging Station on-street parking spaces must be clearly marked and differentiated.
    - a. The Applicant / Contractor shall place "No Parking Except Electric Vehicle Charging" signs as required per approved permit plans.
  - 3. The bottom edge of all ground mounted, (pole or post mounted), Traffic Control / Curb Control Signs and EV Charging Station Signs shall be located 7'-0" above the finished sidewalk.
  - 4. EV Charging Station signs shall not obstruct the visibility of existing traffic control or curb control signs.
  - 5. Equipment signing is limited to exhibiting the vendor's logo and/or important contact information.
- B. Advertising Restrictions:
  - 1. No advertising may be displayed upon the Equipment; provided, however, that the name of the Owner / Operator may be displayed on the Equipment in letters not more than two (2) inches high or shown on a plaque no larger than eight (8) inches by three and one-half (3½) inches affixed to the equipment.

- **Section 3: EV Charging Station Equipment – General Requirements**

- A. All EV Charging Station-Equipment shall comply with industry size standards established for Equipment installations in the right-of-way.
  - 1. The Equipment envelope shall comply with the following dimensional limits:
    - a. 8'-0" maximum height measured from the top of the Equipment foundation plinth.
    - b. 4'-0" maximum width.
    - c. 2'-0" maximum depth.

- B. The Equipment shall be located as required to provide compliance with pedestrian accessibility and off-set distance requirements, (see Detailed Design Guidelines – Section 1).
- C. Ambient Noise Suppression:
  - 1. The Applicant / Contractor shall incorporate ambient noise suppression measures as required for compliance with all CMC Chapter 909 – Community Noise regulations.
  - 2. Noise suppression measures may not cause an increase in the EVSE unit size beyond the allowable maximum dimensions and shall not encroach into required offset distances or clearances.
  - 3. The Department may require the applicant to place the equipment in locations less likely to impact adjacent residences or businesses to ensure compliance with all applicable noise regulations.
  - 4. Applicant' plans to include documentation of compliance.

- **Section 4: EV Charging Station – Equipment Structure**

- A. Structural System(s):
  - 1. All Equipment in the public right-of-way shall comply with the American Association of State Highway and Transportation Officials; (AASHTO), Standards and Guidelines, (latest edition).
- B. Separate Structure in the Public Right-Of-Way Building Permit approval required:
  - 1. Reference <https://www.cincinnati-oh.gov/buildings/building-permit-forms-applications/> for permit application requirements.
- C. Equipment Installation Structural Requirements:
  - 1. Provide design calculations in compliance with AASHTO standards.
  - 2. All Equipment shall meet the latest version of the AASHTO wind load requirement for structural support, (90 mph wind test).
  - 3. The Equipment must be mounted on a reinforced concrete footing / foundation pier, anchored per manufacturer’s instructions, recommendations, and specifications and in compliance with AASHTO structural design requirements.
    - a. The top of the reinforced concrete footing / foundation pier may extend above the top of the adjacent sidewalk collector strip, tree lawn, or sod strip a maximum of 2” to provide a level plinth for placement of the equipment.
      - Subject to review and approval.
      - Plinth shall not create accessibility non-compliance issues.

- **Section 5: EV Charging Station – Electrical Systems**

- A. Electrical System(s):
  - 1. All EVSE installations in the public right-of-way shall comply with the National Fire Protection Association 70 National Electric Code; (NFPA-70 NEC), including Article 625 – Electric Vehicle Charging and Supply, (latest edition).
- B. Separate Electric Permit Required:
  - 1. IBI, (Inspection Bureau, Inc.) Electrical Permit approval required.
    - a. Reference <https://www.cincinnati-oh.gov/buildings/building-permit-forms-applications/permit-guide/submit-permit-application-other-required-documents/> for electrical permit application requirements.
    - b. Reference also <https://www.inspectionbureau.com/> for permit application requirements.

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- C. Electrical System(s):
1. Service Connections:
    - a. All Utility Service Connections for all site installation locations shall be underground.
  2. Electric Service Equipment Boxes:
    - a. All factory installed electric service equipment should be contained within the approved equipment enclosure.
    - b. Any site installed electric service boxes mounted to the outside of the Equipment including electric meters, disconnects, etc., must be painted to match the Equipment enclosure.
    - c. Any site installed added electric service boxes including electric meters, disconnects, etc., shall not encroach into required clearances and offset distances.
    - d. For site installed Equipment mounted applications, the smallest and least intrusive electric meter available in compliance with Duke Electric standards shall be installed.
  3. Electric Disconnect:
    - a. An electric power service disconnect shall be installed in coordination with each electric meter.
    - b. The Disconnect shall be made accessible to emergency response Staff but shall not be accessible by the public.
  4. Electrical System Grounding:
    - a. All electrical equipment in the public right-of-way shall be grounded per manufacturer's instructions, recommendations, and specifications and in compliance with NFPA standards, DOTE standards, and B&I / IBI permit approval.
    - b. Unless otherwise dictated by NFPA standards and/or B&I / IBI permit approval, all ground rods shall be 1 inch in diameter and 10 feet in length made from copper-clad steel (high strength) as required in ASTM A325 and in compliance with the requirements of the City Supplement to the ODOT CMS, Item No. 1320.
  5. Pull Boxes:
    - a. Only 1-pull box shall be permitted per each Equipment installation.
    - b. All pull boxes shall be DOTE standard Type-B, (18" X 18") or Type-C, (24" X 24").
    - c. Pull boxes shall be located at 2'-0" from the back of curb to the center line of the pull box.
  6. Underground Conduit:
    - a. All underground conduits runs and locations shall be determined on a case-by-case basis in compliance with both DOTE and NFPA standards.
    - b. Underground conduits shall be 2" diameter PVC SCH 40 encased in concrete except for the following:
      - Underground conduits running through tree wells and/or beneath driveway aprons shall be 2" diameter PVC SCH 40 encased in RMC, (rigid metal conduit).
      - Reference City Supplement to the ODOT CMS, Item No. 1321.
  7. Above-Ground Conduit:
    - a. Typically, above-ground conduit is not permitted.
    - b. Where necessary and as approved by DOTE, all above-ground wires, cables and connections shall be encased in the smallest section or smallest diameter PVC

- conduit and channel, u-guard, or shroud feasible, with a maximum dimension of 4” diameter, and painted to match the pole.
      - c. Above-Ground Conduit shall not encroach into required clearances or offset distances.
    - 8. Telephone / Fiber Optic Utilities:
      - a. Cabinets for telephone and/or fiber optic utilities may not increase the Equipment unit dimensions and must be concealed, painted, wrapped, or otherwise colored to match the Equipment.
      - b. Telephone and/or fiber optic utility facility cabinets shall not encroach into required offset distances.
      - c. Microwave technology or other wireless backhaul is discouraged when it involves a separate and unconcealed antenna.
    - 9. Equipment Lighting & Illumination:
      - a. Equipment lighting shall be limited to operational purposes only.
      - b. Any lights associated with the electronic equipment shall be appropriately shielded from public view.
    - 10. Equipment Charging Cords:
      - a. Charging Cords are required to retract automatically and shall not rest over sidewalk space adjacent to another vehicle while in use and after charging.
      - b. When not in use, Charging Cords shall not encroach into required clearances or offset distances.
      - c. Charging Cords shall not encroach into the adjacent traffic lane and shall not impede adjacent vehicular traffic.

- **Section 6: Accessibility**

Providing access to EV Charging Stations in the right-of-way while not obstructing the use and operations of the right-of-way for abutting property and the general public presents its own particular challenges, requirements, and restrictions.

- A. The Applicant is responsible for providing accessibility to all EV Charging Stations in compliance with all Federal US Access Board Guidelines and Standards and with City DOTE clearances and off-set standards, (reference Detailed Design Guidelines – Section 1 for required clearances and off-set dimensional requirements).
- B. Applicant Accessibility Responsibilities:
  - 1. The Applicant is responsible for providing and maintaining the following customer access:
    - a. Customer access to EV Charging Station installation sites and facilities.
    - b. Customer access to all Equipment, including use and required operations.
  - 2. The Applicant is responsible for providing and maintaining the following general public / non-customer access:
    - a. Motorist access and use of the public streets.
    - b. Pedestrian access and use of the public sidewalk and legal street crossings, including clear paths of travel.
  - 3. The Applicant is responsible for providing and maintaining standard operating and maintenance access for the following:
    - a. Adjacent public infrastructure, including emergency response.
    - b. Adjacent utilities.
    - c. Abutting property.

C. Obstructions.

1. New EVCI, including EVSE physical units and use operations, shall not obstruct any of the following:
  - a. Worker and/or pedestrian access to any public above-ground right-of-way infrastructure, including without limitation for that that required for traffic control, streetlighting, and curb control, (parking meters, parking kiosks, bike racks, pedestrian crossing signals, etc.)
  - b. Worker and/or pedestrian access to any public transportation vehicles, shelters, street furniture or other improvements at any public transportation stop, including, without limitation, bus stops, streetcar stops, and bike share stations.
  - c. Worker access to above ground or underground infrastructure owned or operated by any public or private utility agency.
  - d. Fire department access to fire hydrants and standpipe connections.
  - e. Public access to any doors, gates, sidewalk doors, passage doors, stoops or other ingress and egress points to any building appurtenant to the right-of-way.
  - f. Emergency access to any fire escape.

**Part VIII: Permitting**

The Department desires to promote cleanly organized and streamlined facilities using the smallest and least intrusive means available to provide EV charging services in the public right-of-way to the community. All EV Charging Stations in the right-of-way must comply with all applicable provisions in this section. In the event that any other law, regulation, or code requires any more restrictive structural design and/or construction requirements, the most restrictive requirement will control and dictate design compliance

The following is a general outline description of the necessary permit application process steps and requirements for obtaining permit approval to install EV Charging Stations in the public right-of-way.

- **Section 1: General Permitting Requirements**

A. Standard Conditions:

1. Upon receipt of Pre-Application Approval for a proposed site installation, the Applicant and/or the Applicant’s Contractor may begin the Permitting process.
2. The Applicant must prepare design calculations and complete, fully dimensioned, and detailed construction document plans and specifications prepared, sealed, stamped, and signed by a Professional Engineer licensed and registered by the State of Ohio to the satisfaction and approval of the Department and associated reviewing agencies.

B. Required Site Plans:

1. The Existing Site Plan shall include the identification and documentation of all existing items to remain as is, items to be removed, and items to be modified or relocated in compliance with all applicable referenced standards.
  - a. The Existing Site Plan shall provide all information required to properly review and assess site conditions, including the following:
    - Existing underground, ground level, and overhead utilities.
    - Existing roadways and sidewalks complete – both sides of the street and/or both sides of all intersecting streets.



- Existing abutting private property immediately adjacent to the improvement area.
  - The existing on-street parking layout.
  - Existing traffic control and curb control sign locations and sign type identification including posted time restrictions, (time limits, street sweeping, loading zone, etc.).
  - Existing parking meters, mobile parking payment signs, pay for parking kiosks.
  - Existing street trees and tree wells.
  - Existing pertinent dimensions documenting access, including street and sidewalk widths.
2. The Proposed Site Plan shall include identification and documentation of all proposed underground, ground level, and overhead improvement items, including all existing items to remain as well as all modified, relocated, or new items.
    - a. The Proposed Site Plan shall provide all information required to properly review and assess site conditions, including the following:
      - Proposed underground, ground level, and overhead utilities.
      - Proposed roadways and sidewalks with existing conditions to remain and new improvements complete – both sides of the street and/or both sides of all intersecting streets.
      - Abutting private property immediately adjacent to the improvement area.
      - The proposed on-street parking layout.
      - New facility equipment layout(s), including dimensioned off-set clearances.
      - Proposed traffic control / curb control signing and parking meter layout.
      - Required accessibility compliance, including dimensioned clearances.
      - Required off-set compliance.
- C. Required Proposed Detailed Plans:
1. Detailed Civil Plans shall include the following:
    - a. Plan Layout.
    - b. Pedestrian equipment access, including dimensioned clearances.
    - c. Pedestrian access paths, including dimensioned clearances.
    - d. Equipment elevations.
    - e. Equipment signing.
  2. Structural Plans shall include the following:
    - a. Design calculations governing the design.
    - b. Equipment reinforced concrete footing / foundation plans, sections, and details.
    - c. Equipment anchorage details.
    - d. Ground mounted support poles as needed.
  3. Required Electrical Plans shall include the following:
    - a. Service connection(s).
    - b. Wiring diagrams.
    - c. Conduit plans and details.
    - d. Grounding details.
    - e. Lighting details as needed.

- D. Required Proposed EV Charging Station Equipment Description:
  1. The proposed equipment description and specifications., including:
    - a. Equipment manufacturer’s identification and contact information.
    - b. Equipment model number.
    - c. Equipment physical dimensions, including without limitation height, width, depth and weight with mounts and other necessary hardware.
    - d. Ambient noise level generated from the equipment if any.

- **Section 2: Permit Approvals Required**

- A. The following types of City permits are required:
  1. DOTE Barricade Permit, (contingent upon site construction and both vehicular and pedestrian maintenance of traffic construction activity requirements).
  2. DOTE Right-Of-Way Street Opening Permit, including
    - a. Traffic Management Plan for both vehicular and pedestrian traffic.
  3. B&I Building Permit, (for electrical equipment).
  4. IBI Electric Permit.

- **Section 3: Permit Application Process**

- A. Permits Applications Required:
  1. Applicant / Contractor submits the following permit applications for Staff review:
    - a. DOTE Right-Of-Way Permit.
    - b. B&I Building Permit, (for structure).
    - c. IBI Electric Permit.
  2. Applicant / Contractor submits a copy of Public Notifications to DOTE.
    - a. See Part II, Section 4: Public Engagement for notification process requirements.
    - b. DOTE informs the Applicant / Contractor of responses received.
      - Public opposition may be used as a permit reviewing criterion.
  3. The Applicant / Contractor application for Preliminary Site Review shall be submitted to the Department in compliance with DOTE Permit & License Center rules and regulations at:
 

<ol style="list-style-type: none"> <li>a. <a href="#">DOTE Permit &amp; License Center</a></li> </ol>	Days: Monday through Friday Times: 8:00 AM – 4:00 PM ET Tel: 513.352.3463 Fax: 513.352.5397 E-Mail: <a href="mailto:row.permits@cincinnati-oh.gov">row.permits@cincinnati-oh.gov</a>
City Hall – Room 425 801 Plum Street Cincinnati, Ohio 45202	

- **Section 6: Permit Application Submittal Actions**

- A. General Review Process:
  1. DOTE, B&I, and IBI review the permit applications received for compliance with referenced standards, City requirements, regulations, requirements, and standards, and DOTE Preliminary Design Guidelines and Detailed Design Guidelines.
- B. Additional information:
  1. The City reserves the right to require additional information, including Visual Simulations, for any proposed site installation that presents unusual conditions or that is likely to create community concern.

- C. Permit Application Submittals will receive one of the following review assessments:
  - 1. Approval / No-Objection.
  - 2. Denial / Objection.
- D. Criteria for Approval / No-Objection:
  - 1. Notwithstanding any other provisions in these Guidelines, and consistent with all applicable federal laws and regulations, the Department may determine permit application approval when it finds that the permit application provides and meets compliance with the following:
    - a. Preliminary Pre-Application Approval.
    - b. Right-Of-Way, Structures, and Electrical Permit application submittal requirements.
    - c. Compliance with Referenced Standards.
    - d. Detailed Design Guidelines.
- E. Criteria for Denial / Objection:
  - 1. Notwithstanding any other provisions in these Guidelines, and consistent with all applicable federal laws and regulations, the Department may object / deny approval when it finds that the proposed permit application does not provide or meet compliance with the items listed above.

- **Section 7: Next Steps**

- A. Following are the Applicant’s next steps upon receipt of the Permit Application review assessment for each proposed installation site:
  - 1. Permit Approval:
    - a. Begin construction activities in compliance with the terms and conditions of the approved permit.
  - 2. Permit Application Denial Options:
    - a. Make required revisions and resubmit.
    - b. Terminate the application process for the proposed site location.

**Part IX: Post Permitting**

- **Section 1: Construction**

- A. Applicant / Contractor starts construction in compliance with the DOTE Right-Of-Way permit approval terms and conditions.
  - 1. The Applicant / Contractor installs barricades and implements maintenance of traffic measures.
  - 2. The Applicant / Contractor schedules and completes DOTE, B&I, and IBI inspections as required.
  - 3. The Applicant / Contractor coordinates with Duke Electric and IBI to obtain and install both temporary and permanent electric service as required.
  - 4. The Applicant / Contractor coordinates with all other local utility companies as required per site installation location.
  - 5. The Applicant / Contractor performs and completes all street and sidewalk restoration work in compliance with the DOTE Right-Of-Way permit approval terms and conditions.
  - 6. DOTE, B&I, and IBI provide final construction approval and close-out all permits.

- **Section 2: EV Charging Station Operations**

- A. The Applicant assumes all EV Charging Station ownership, operation, and maintenance responsibilities for all permit approved completed sites.
- B. The Applicant / Operator starts all EV Charging Station service operations in compliance with the terms of the executed Agreement and all approved permits.
- C. Applicant / Operator monitors and maintains all EV Charging Station as required per the terms and conditions of the executed Agreement and all approved permits.

- **Section 3: EV Charging Station Modifications, Replacement, and/or Removal**

- A. EV Charging Stations located within the public right-of-way represent new technology that may rapidly change and evolve.
    - 1. The Applicant shall be responsible for obtaining DOTE Right-Of-Way Street Opening Permit approval as necessary for all site installation and equipment modifications, replacements, and/or removals.
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**End of Detailed Design Guidelines**