**MASONRY AND CONCRETE WALL CONNECTION DETAIL**

**SCALE:** NONE

EXISTING GRADE: 1 1/2" CLR FROM CONDUIT (TYP)

ALL AROUND: 1 1/2" CLR FROM CONDUIT (TYP)

**UNGROUTED CMU WALL ELEVATION**

**GROUTED CMU OR CONCRETE WALL**

**SECTION A-A**

NOTE: CONTENT SHOWN NOT SHOWN FOR CLARITY

**SECTION B-B**

NOTE: CONTENT SHOWN NOT SHOWN FOR CLARITY

**GENERAL NOTES:**

**GENERAL CRITERIA:**

1. **COORDINATION WITH EXISTING CONDITIONS**
   - Coordinate with existing electrical, civil, and manufacturers drawings. If discrepancies are found, report them to the structural engineer before proceeding with the work.

2. **NO SCALE DRAWINGS FOR THE PURPOSE OF DETERMINING DIMENSIONS**
   - The attached drawing is subject to 1/8" grid for graphic scale accordingly.

3. **NO MODIFICATIONS TO BE MADE TO ANY MEMBERS OF THE STRUCTURAL SYSTEM WITHOUT THE PRIOR WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER.

**EXISTING CONDITIONS:**

A. New construction must be coordinated with existing site conditions.

B. Locate and protect all existing underground facilities. Do not cut or drill through reinforcing in existing concrete. Conduit must specifically noted on plans. Grout to locate reinforcing at locations requiring cutting or coring prior to start of construction. Subject reinforcing location in concrete to damage. Do not use reinforcing guidelines or location in concrete for anchoring. Use for design only.

C. Drill holes to protect concealed conduit. Plumbing, or other utilities, for concrete or masonry. Grout shall be used for penetrations greater than 3/4" in depth.

**SUBMITTAL REQUIREMENTS:**

A. See project specifications for all submittal requirements. EB or view all submittals listed in 01 3300 attachment-A to select the action submittals listed in specifications section.

B. **DESIGN LIMITATIONS:**
   - Wall mount installation shall only be used for the ChargePoint CT series.

**MATERIAL CRITERIA:**

- All concrete shall be normal weight and develop a minimum 28 Day compressive strength of 4500 psi for acid exposure class C and conforming to specification 03 3001.

- Concrete masonry units shall be grade M, type I, 1 nominal dimension of 4" x 8" x 16".

- Concrete slabs shall have design compressive strength of 1500 psi.

- Post-installed anchors:
   - Anchors shall be installed per project specifications. The manufacturers printed installation instructions apply.
   - Drilling holes for anchors in hollow masonry shall be drilled with hammer drill set in rotation only mode (i.e., hammering action of the drill turns off). Anchors shall be installed at 0.5" (appropriate for 1/2"diameter) or 1.0" (appropriate for #5 bars) center-to-center spacing between adjacent anchor and proximity of anchors to existing ducts, wall, and electrical or mechanical equipment.
   - Drilling holes for anchors in concrete shall be drilled with hammer drill set in rotation only mode (i.e., hammering action of the drill turns off). Anchors shall be installed at 0.5" (appropriate for 1/2"diameter) or 1.0" (appropriate for #5 bars) center-to-center spacing between adjacent anchor and proximity of anchors to existing ducts, wall, and electrical or mechanical equipment.

**GENERAL NOTES CONT'D:**

- Field verify all submittals listed in 01 3300 attachment-A to verify all submittals listed in 01 3300 attachment-A.

**FIELD VERIFICATION:**

- 1. **MANAGEMENT LEVEL 1**
   - Vertical:
     - B. DECK LOADS: STRUCTURE IS DESIGNED FOR THE ACTUAL IN-PLACE WEIGHTS OF ALL MATERIALS SHOWN ON THE CONSTRUCTION DOCUMENTS.

**KEYED NOTES:**

- The following criteria covers the structural design of this EV charging station wall mount.

1. **ELECTRICAL VEHICLE CHARGING STATION INSTALLATION MUST BE PROTECTED FROM EXISTING SITE CONDITIONS:**
   - If this sheet is not 24"x36" use graphic scale accordingly.

2. **FIELD SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT NEW CONSTRUCTION MUST BE COORDINATED WITH EXISTING SITE CONDITIONS:**
   - Use graphic scale accordingly.

3. **TO AVOID CONFLICTS, NO REINFORCEMENT SHALL BE CUT TO INSTALL ELECTRICAL, CONCRETE OR MASONRY, GPR SHALL BE USED FOR PENETRATIONS BETWEEN ADJACENT ANCHORS, AND PROXIMITY OF ANCHORS TO EXISTING UNDERGROUND FACILITIES, CONCRETE UNLESS SPECIFICALLY NOTED ON PLANS. GPR TO LOCATE ANCHORS WITH SUFFICIENT PROJECTION LENGTH FOR PROPER INSTALLATION OF SUPPORTED EQUIPMENT AND/OR STRUCTURE.**

4. **CONCRETE OR MASONRY, GPR SHALL BE USED FOR PENETRATIONS TO START OF CONSTRUCTION.**
   - Field SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT NEW CONSTRUCTION MUST BE COORDINATED WITH EXISTING SITE CONDITIONS.

5. **LOCATE AND PROTECT ALL EXISTING UNDERGROUND FACILITIES.**
   - Field SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT NEW CONSTRUCTION MUST BE COORDINATED WITH EXISTING SITE CONDITIONS.

6. **TO AVOID CONFLICTS, NO REINFORCEMENT SHALL BE CUT TO INSTALL ELECTRICAL, CONCRETE OR MASONRY, GPR SHALL BE USED FOR PENETRATIONS BETWEEN ADJACENT ANCHORS, AND PROXIMITY OF ANCHORS TO EXISTING UNDERGROUND FACILITIES, CONCRETE UNLESS SPECIFICALLY NOTED ON PLANS. GPR TO LOCATE ANCHORS WITH SUFFICIENT PROJECTION LENGTH FOR PROPER INSTALLATION OF SUPPORTED EQUIPMENT AND/OR STRUCTURE.**

**CONCRETE WALL INSTALLATION:**

- 3F8XH HILTI KB-TZ2 SS304, 2-1/2" CHAMFER. WHERE NEW PAD ABUTS EXISTING WALL, PROVIDE BAR SUPPORT ACCESSORIES IN ACCORDANCE WITH THE APPLICABLE MPII AND ICC-ES REPORTS. ANCHOR CAPACITY IS DEPENDENT ON EFFECTIVE EMBEDDMENT LENGTH, SPACING BETWEEN AdjACENT ANCHORS, AND PROXIMITY OF AnchORS TO EXISTING DuctS, wall, AND ELECTRICAL OR mechanical EQUIPMENT.

- 3/4" CHAMFER. WHERE NEW PAD ABUTS EXISTING WALL, PROVIDE BAR SUPPORT ACCESSORIES IN ACCORDANCE WITH THE APPLICABLE MPII AND ICC-ES REPORTS. ANCHOR CAPACITY IS DEPENDENT ON EFFECTIVE EMBEDDMENT LENGTH, SPACING BETWEEN AdjACENT ANCHORS, AND PROXIMITY OF AnchORS TO EXISTING DuctS, wall, AND ELECTRICAL OR mechanical EQUIPMENT.

**ANCHORAGE DESIGN IS BASED ON THE DIMENSIONS AND OPERATIONAL REQUIREMENTS OF THE CHARGEPOINT CT SERIES BY CHARGING STATION SERIES ONLY.**

**This standard detail has been developed for installations exempt from the effects of natural phenomena hazards per ES2-09. I. 11.1 A. AN SRR AND CALCULATION SHALL NOT BE REQUIRED FOR installations meeting this exemption.**

**WHERE THE EDM CH. 5, SECTION I. 1.1 A EXHIBITION DOES NOT APPLY, ALL B.G. EDM, AND INTERFACED CODE AND STANDARDS REQUIREMENTS SHALL APPLY.**

**DESIGNER NOTES:**

1. **EDIT TO BE PROJECT SPECIFIC.**
2. **COMPANY WITH CURRENT EDITION OF LNL CAD STANDARDS MANUAL.**
3. **ANCHORS PER LNL MASTER SPEC IS ES2-09 FOR NORMAL CONCRETE POST-INSTALLED ANCHORS.**
4. **ANCHORS SHALL BE INSTALLED IN COMPLIANCE WITH ICCESR-ES2-09, AND ICC-ESR-ES2-09 FOR GROUTED MASONRY AND CONCRETE APPLICATIONS RESPECTIVELY.**
5. **ANCHORAGE DESIGN IS BASED ON THE DIMENSIONS AND OPERATIONAL REQUIREMENTS OF THE CHARGEPOINT CT SERIES BY CHARGING STATION SERIES ONLY.**
6. **This standard detail has been developed for installations exempt from the effects of natural phenomena hazards per ES2-09. I. 11.1 A. AN SRR AND CALCULATION SHALL NOT BE REQUIRED FOR installations meeting this exemption.**
7. **WHERE THE EDM CH. 5, SECTION I. 1.1 A EXHIBITION DOES NOT APPLY, ALL B.G. EDM, AND INTERFACED CODE AND STANDARDS REQUIREMENTS SHALL APPLY.**

**ENGINEERING STANDARDS ELECTRICAL VEHICLE CHARGING STATION**

**WALL-MOUNTED DETAILS**

**TA-XX**

**BLDG XXXX**

**S-5001**

**CHAPTER 5**

**ST-G4090-3**

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