



**Carroll Electric  
Cooperative Corporation**

# Residential Development Extension Standard

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# CONTENTS

1. Purpose.....	1
2. Definitions .....	1
3. Standard Procedure .....	2
3.1 <i>Application for Residential Development</i> .....	2
3.2 Electrical Distribution Facilities Design and Cost Estimates.....	3
3.3 <i>Residential Development Installation Agreement</i> .....	3
3.4 Construction of Electric Distribution Facilities within the Development.....	4
4. Electrical System Design Requirements .....	5
4.1 Application for Residential Development.....	5
4.2 Relocation and Removal of Existing Facilities.....	5
4.3 Placing New Lines Underground .....	5
4.4 Plat Drawings .....	5
4.5 Electric Load Information .....	6
4.6 Easements.....	6
4.7 Covenant Requirements .....	7
4.8 Street Lighting.....	8
4.9 Final Plat and Bill of Assurance.....	8
4.10 Project Development.....	8
4.11 Property Corners .....	8
4.12 Layout and Design .....	8
4.13 Environmental Considerations .....	9
4.14 Location of Cables and Equipment .....	9
4.15 Use of Overhead Facilities .....	9
4.16 Other Utilities.....	9
4.17 Sewer Lift Stations, Wells, and Other Non-Qualified Loads.....	10
4.18 Temporary Builder's Service .....	10
4.19 Service to Residence .....	10
4.20 <i>Residential Development</i> Performance Bonding.....	10
4.21 Cost Estimates.....	11
4.22 Revisions to Submitted Information or Plats .....	11
5. Construction and Installation Requirements .....	12
5.1 <i>Residential Development Installation Agreement</i> .....	12
5.2 Marking of Property Corners, Lots, and Other Features.....	12
5.3 Locating Underground Facilities.....	12
5.4 Installation, Removal, and Relocation of Overhead Electric System Facilities.....	12
5.5 Installation of Conduits and Equipment Pads and Vaults .....	12
5.5.1 Coordination and Inspection .....	12
5.5.2 Conduit System Acceptance .....	13
5.5.3 Conduit System Maintenance Bond.....	14
5.5.4 Installation of Cables and Equipment .....	14
5.5.5 Alternate Installation of Conduits and Equipment Pads and Vaults .....	14

5.5.5.1	Road Crossings .....	15
5.5.5.2	Equipment Locations .....	15
5.5.5.3	Work Scheduling.....	15
5.6	Right of Way.....	15
5.7	Changes to Approved Plans .....	15
5.8	Service Installations .....	15
5.9	Damages to Cooperative Facilities.....	15

Appendix A: Application for Residential Development

Appendix B: Residential Development Installation Agreement with Preliminary Design and Cost Estimate

Appendix C: Application for Additional Street Lighting

Appendix D: CECC Business Application for Membership and/or Electric Service

Appendix E: Underground Conduit Installation Specifications and Drawings

## 1. Purpose

The *Residential Development* Extension Standard is intended for use by property *Developers* who request the installation of an electric distribution system to serve a *Residential Development* (see section 2 for definition). The *Developer* should contact Carroll Electric Cooperative Corporation (CECC) as early as possible in their project planning process to obtain and provide this standard to any engineers or contractors utilized to plan and/or construct their development.

This standard does not provide for individual metered electrical services to be connected from the installed electrical distribution system within the *Residential Development*. An *Application for Membership and/or Electrical Service* must be completed, and all applicable fees paid to start the installation process for a metered electrical service under the rates and tariffs of CECC approved by the Arkansas Public Service Commission. A sample of this form is attached and included for reference as Appendix D. Please contact CECC for the form and checklist of other requirements for your location.

## 2. Definitions

**Application for Residential Development** - The document when completed by the *Developer* and submitted to CECC provides all the information needed to begin and complete the process of designing and preparing associated cost estimates for the installation of electrical facilities in the *Residential Development*. This form is included as Appendix A.

**Application for Membership and/or Electric Service** - The document a person or other entity desiring metered electric service from CECC must submit in order to first obtain membership and then metered electric service, or if already a member to obtain an additional metered electric service. A sample of this form is included for reference as Appendix D.

**Application for Changes to Street Lighting** - The document an entity must submit to CECC in order to obtain electric service for street lights to ultimately be billed to a city or property owners association. A sample of this form is included for reference as Appendix C.

**Cost Estimate** - CECC's opinion of likely cost given the information (including current pricing) available at the time the estimate is prepared. Changes to information or plans after estimates are prepared may cause estimates to change.

**Developer** - The person or entity responsible for the *Residential Development*. They may be the owner of the property or have a contractual agreement to act on behalf of the property owner.

**Residential Development** - A development for the purpose of providing for the future construction of residential buildings (either single-family or multi-family) and which also requires the installation of electrical distribution facilities prior to the installation of metered residential electrical services. Campgrounds and RV parks are typically classified as non-qualified services and therefore are not considered *Residential Developments*.

**Residential Development Installation Agreement** – The document CECC will prepare for the *Developer's* review and acceptance that details the conditions, requirements, and estimated costs



for CECC to construct and install electric facilities in the *Residential Development*. A sample of this form is included for reference as Appendix B.

**Subdivision** - A tract of land divided into at least 5 lots for single-family or multi-family residences.

### 3. Standard Procedure

#### 3.1 Application for *Residential Development*

Any *Developer* desiring to have CECC extend electrical facilities into their *Residential Development* must first complete the *Application for Residential Development*. This form is attached to and included as Appendix A for the *Developer's* use. For the application to be considered complete, all of the following list of items shall be included:

- ☐ *Application for Residential Development* form signed and dated with all questions appropriately answered
- ☐ Attachment A - Overall Development plan showing all phases (if applicable)
- ☐ Attachment B - Timeline for construction - including all phases (if applicable)
- ☐ Attachment C - Plat of Development including easement language (See section 4.4 for CECC plat and drawing requirements and section 4.6 for easement requirements)
- ☐ Attachment D - If three-phase power is required, a detailed description of the specific power requirements, including the type of the electrical load, motor size, voltage, and location
- ☐ Attachment E - If there are other service requirements for amenities such as motor-operated gates, public use areas, lighting, etc., provide a load description and location for each planned service
- ☐ Attachment F - Copy of the *Residential Development* bill of assurance or protective covenants (See section 4.7)
- ☐ Attachment G - Completed IRS form W-9 for business entities
- ☐ Attachment H - \$ 1,000.00 nonrefundable deposit

CECC shall make no field investigations nor prepare preliminary designs or cost estimates prior to the submittal of the completed *Application for Residential Development*, including the \$1,000.00 nonrefundable deposit.

Along with the nonrefundable deposit, the applicant shall pay any previous debts owed to CECC before CECC shall be obligated to begin any work under this agreement.

The completed *Application for Residential Development* along with all attachments may be submitted in one of the following ways:

Delivered via US Mail or delivery service to:

Carroll Electric Cooperative Corp.  
Attention: Residential Developments  
P.O. Box 400  
920 Highway 62 Spur  
Berryville AR 72616

Electronically via e-mail to:      [developments@carrollecc.com](mailto:developments@carrollecc.com)

Delivered in person to one of the CECC office locations listed below:

920 Highway 62 Spur Berryville AR 72616	707 SE Walton Boulevard Bentonville AR 72712
5056 Highway 412B Huntsville AR 72740	511 East Court Street Jasper AR 72641

### **3.2 Electrical Distribution Facilities Design and Cost Estimates**

Upon receipt of the completed *Application for Residential Development*, CECC will contact the *Developer* or their designee to confirm receipt and clarify any questions. Based on workload at time of submittal, CECC will provide an estimate of the time it will take to prepare and deliver the design of electric grid facilities, associated *Cost Estimate*, and the *Residential Development Installation Agreement*.

The *Developer* may request to directly utilize an approved CECC design contractor to perform the preliminary electrical design and layout in accordance with CECC specifications. In cases where this is approved by CECC, the drawings showing the preliminary design shall be submitted to CECC for review and approval and for compilation of cost estimates and the *Residential Development Installation Agreement*.

See Section 4.22 for instructions to submit changes to the information or plats initially submitted for the *Residential Development*.

### **3.3 Residential Development Installation Agreement**

After the proposed design and associated *Cost Estimate* are complete, CECC will prepare and send to the *Developer* for review, a *Residential Development Installation Agreement*. A sample of this form is included for reference as Appendix B.

The *Developer* will review the proposed design along with the associated *Cost Estimate* and advise CECC of any issues or concerns needing to be addressed. If none, the proposed plans and *Cost Estimate* should be signed by the *Developer* and submitted back to CECC as detailed below. If there are revisions made to the proposed design, the resulting revisions to the associated *Cost*

*Estimate* and a reissue of the *Residential Development Installation Agreement* for the *Developer* to review shall be required. The reissue of the *Residential Development Installation Agreement* shall show a revision number, date, and explanation of the revision noted in the “Revisions” section at the end of the form. Furthermore, if revisions to the preliminary design are based on changes or revisions to the information or plans originally submitted to *CECC* by the *Developer*, Section 4.22 should be followed for updating the *Application for Residential Development*.

After any issues with the proposed design have been addressed, the *Developer* may submit the completed *Residential Development Installation Agreement* to *CECC* who will consider it complete when all of the following items are included:

- ✓ Latest revision of *Residential Development Installation Agreement* signed by *Developer*
- ✓ Latest revision of Proposed Design signed by *Developer*
- ✓ Latest revision of *Cost Estimate* signed by *Developer*
- ✓ Performance Bond for the amount specified (See Section 4.20)
- ✓ Payment of estimated costs (See Section 4.21)

*CECC* shall perform no field staking nor schedule any installation of facilities prior to the submittal of the completed *Residential Development Installation Agreement*.

The completed *Residential Development Installation Agreement* form along with all attachments, bonds, and payments listed above must be mailed or delivered to one of the *CECC* office locations listed in Section 3.1. No electronic submittals are presently accepted for the *Residential Development Installation Agreement*.

### **3.4 Construction of Electrical Distribution Facilities within the Development**

Upon receipt of the completed *Residential Development Installation Agreement*, *CECC* will contact the *Developer* or their designee to confirm receipt and begin coordination of the field staking and installation of the facilities. Based on present construction workloads, *CECC* will also provide an estimate of the time *CECC* will begin working on the installation and an estimate of the time to complete the installation. See Section 5 for coordination, inspection, construction, and installation requirements.

See Section 4.22 for instructions to submit changes to the information or plats initially submitted for the *Residential Development*.

## 4. Electric System Design Requirements

### 4.1 *Application for Residential Development*

The *Developer* must submit a signed and completed *Application for Residential Development* as detailed in Section 3.1 for *CECC* to begin preparing preliminary design, *Cost Estimates*, and the *Residential Development Installation Agreement*.

### 4.2 **Relocation and Removal of Existing Facilities**

It is the policy of *CECC* to relocate or remove existing facilities at the request of a member or others if such relocation or removal is deemed by *CECC* to not significantly impact operations, reliability, or maintenance of the facility or that of any associated facilities or members. In instances where the *Developer* requests existing facilities be removed or relocated (including being relocated underground) and *CECC* consents to the request to relocate or remove the facilities, the *Developer* understands and agrees to pay for all costs for relocation or removal of such facilities.

### 4.3 **Placing New Lines Underground**

Normally line extensions provided by *CECC* shall be overhead; however, lines may be extended underground through agreement with an individual member or *Developer* only if in *CECC*'s judgement, placing of the line underground does not significantly impact operations or maintenance of the facility or that of any associated facilities or the reliability of other members. *CECC* does not offer submerged electrical distribution transformers or equipment; therefore, any transformers or equipment associated with underground lines shall be interpreted to be pad or vault mounted. In the case of underground residential developments, the *Developer* shall have the responsibility of opening and closing all ditches, installing conduit, transformer pads, sleeves, and vaults. In addition, the *Developer* shall provide a performance bond totaling the cost of electrical facilities as a guarantee of future qualified loads.

### 4.4 **Plat Drawings**

The *Developer* must provide a plat drawing in digital file format to *CECC* before electrical design work can begin. File format and drawing requirements are as follows:

#### 4.4.1 Acceptable file types:

Auto Cad drawings (.dwg) – version 2013 or older

#### 4.4.2 Use of a Projected Coordinate System is required

The preferred Projected Coordinate System is NAD 1983 State Plane Arkansas North FIPS 0301 (feet). If another coordinate system is used, the drawing shall contain:

1. Identification of the coordinate system used within the digital map file
2. The defined datum point
3. The defined scale and unit of linear measurement

#### 4.4.3 The plat drawing shall include the final and complete property description. Any changes of the plat drawing will require a resubmittal of information, see section 4.22. The following information shall be included in the plat drawing:

1. The *Residential Development* name
2. Street names and in their final location including back of curb and sidewalks

3. Property lots in the correct location with referenced coordinate corresponding with submitted datum and coordinate system
4. Correct and final lot numbers along with 911 addresses where available
5. Easements and setbacks
6. Existing buildings
7. Utility plan detailing the location, size, and type of all utilities being constructed to service the *Subdivision*. The utility plan must detail both existing and proposed of the following information:
  - ☐ Water lines including meters and fire hydrants
  - ☐ Gas lines
  - ☐ Sanitary sewer lines
  - ☐ Storm sewers and inlets
  - ☐ Storm water drainage and detention/retention areas
  - ☐ Telephone, communication, and CATV cable routes and equipment locations.
  - ☐ Other utility lines

4.4.4 Drawing files containing electrical design and layout shall conform to the format of *CECC's* "Residential Development Design Template.dwg" file. Please contact *CECC* for details or a copy of the template drawing.

#### **4.5 Electric Load Information**

The *Developer* shall provide information concerning expected dwelling size, planned use of natural gas or liquid petroleum gas for heating or water heating, and other information or restrictions that may affect residential energy requirements. Also include information regarding voltage and load requirements for any non-residential *Subdivision* facilities, such as sewer lift stations, swimming pools, community buildings, etc.

#### **4.6 Easements**

The *Developer* shall provide easements for electric service platted adjacent to lot lines and to permanently platted, maintained, hard-surfaced roads, and must include the following easement language on the plat:

For overhead facilities, *CECC's* standard easement language shall be used. Contact *CECC* for a copy of the standard easement form.

For underground cables and pad-mounted equipment, the following easement language shall be used:

*"We, {DEVELOPER NAME} \_\_\_\_\_, owners of the real estate shown and described herein, on this date, \_\_\_\_\_, \_\_\_\_\_, do hereby dedicate the public streets and easements shown upon this plat. Said public streets and easements shall be for the benefit of the City of CITY NAME, Arkansas and its Franchise Utilities, a perpetual easement right, privilege, and authority to enter upon the lands of the undersigned grantor, and to place, construct, reconstruct, erect, excavate, add to, relocate, rebuild, modify, change operative voltage level, repair, replace, patrol, operate and maintain on, over, and under the*

*described lands, and in and upon all streets, roads, highways, and other rights of way abutting said premises, underground pipelines, cables of one or more circuits to serve as service, distribution, or transmission lines, or combinations of all, to transmit gas, water, sewer, drainage (excluding detention ponds), electrical energy and communications, including but not limited to buried pipelines or buried or above ground pipeline appurtenances, cable, transformers, junction cabinets, vaults, and other appurtenances necessary thereto, together with the right of ingress and egress to and from the lines of the City and Franchise Utilities over the lands of the grantors for the purpose of installing, repairing, replacing, upgrading or otherwise accessing the utility systems to be installed in the easement, which said lands are described under the legal description on this plat.*

*Grantors do also hereby grant and convey to the City and Franchise Utilities the perpetual right to clear and keep clear by cutting, trimming, spraying, or removing by any other manner all brush, trees, timber, and vegetation within the defined easement. All parties agree that no structures shall be constructed within the said easement, or any shrubs, trees, or fences be planted or constructed that may interfere or endanger said utilities.*

*Grantors agree to make no use of, nor permit others to make any use of said easement that would reduce in clearance or in any other way interfere with the proper and safe operation and or maintenance of the utility facilities.”*

#### **4.7 Covenant Requirements**

Insert the following language in the restrictive covenants covering this *Residential Development*:

*“Developer has requested, and Carroll Electric Cooperative Corporation has agreed to provide electrical distribution facilities, with Developer having approved the system design. Any request to subsequently relocate any portion of the facilities shall be consistent with the Cooperative’s design and operating practices and the requesting party shall bear all costs associated with such relocation. All poles shall have no less than seven (7) feet of unencumbered space around them and all pad-mounted equipment shall have no less than fifteen (15) feet of unencumbered space in front of the doors for operation and maintenance of the equipment. Any alteration to final grade within the defined right of way or utility easement shall be pre-approved by the Cooperative and should not reduce in clearance or in any other way interfere with the proper and safe operation and/or maintenance of Cooperative facilities. Cooperative is hereby granted access across property as necessary for maintenance and/or replacement of poles, anchors, guys, lines, and equipment. Cooperative shall only be required to fill, grade, and restore ground cover back to original grade as a result of any excavation. Cooperative shall not be liable for payment or for repair of any damage to landscaping, shrubbery, fence, walk, patio, or driveway in connection with the installation, maintenance, or relocation of the electric system.”*

#### **4.8 Street Lighting**

If street lighting and/or area lighting layouts are required, they shall be designed concurrent with project layout, and installation coordinated with other trenching. Street lighting inside municipal limits may need approval by the appropriate city official and comply with any applicable local ordinance. All lights not billed to a local governing body will be billed to the legally incorporated property owners' association.

Where street lighting is desired or required within a *Residential Development* and the *Developer* chooses to use one of the street lighting options provided by *CECC*, an *Application for Changes to Street Lighting* must be completed by *CECC* and submitted to the municipality or entity for approval. A sample of this form is included for reference as Appendix C.

In instances where street lighting will be accomplished outside of the options provided by *CECC*, the lighting circuits will not be installed, owned, or maintained by *CECC* but will be instead supplied electricity through a meter. Meters for street lighting require a completed *Application for Membership and/or Electrical Service*. (See section 5.8)

#### **4.9 Final Plat and Bill of Assurance**

The *Developer* agrees to the following:

- 4.9.1 Prior to submitting the plat to the governing planning jurisdiction for final acceptance, *CECC* must approve and sign the final plat as acknowledgment that *CECC* requirements have been met.
- 4.9.2 Furnish to *CECC* a copy of the executed, recorded final plat (in PDF or JPEG format) showing detailed layout including property and lot lines, street names, buildings, dedicated easements, water, sewage, drainage and any other underground facilities.
- 4.9.3 Furnish to *CECC* a copy of the recorded bill of assurance detailing all restrictive covenants, which must include the language as shown in Section 4.7 above.

#### **4.10 Project Development**

If the *Residential Development* is to be completed in phases, the *Developer* shall cause it to be built in contiguous locations that allow economic expansion of the electric system between the developed areas. Phases built in non-contiguous location may require additional cost to be paid by the *Developer*.

#### **4.11 Property Corners**

The *Developer* shall identify, install, and maintain permanent property corners with lot numbers identified on stakes in advance of any design.

#### **4.12 Layout and Design**

*CECC* will determine the type of construction and location of line routes and locations of electrical lines, transformers, pedestals, and switchgear. *CECC* will work with the *Developer* when practicable, to locate such routes and equipment in a manner acceptable to both parties. In instances where the *Developer* utilizes an approved contractor to do the layout and design, the *Developer* has the responsibility to make sure *CECC* has reviewed and approved layouts and designs prior to any construction.

Underground systems for *Residential Developments* will be of a looped design and where single-phase loads are to be served along the route of three-phase lines, a separate single-phase line shall be provided from three-phase junction cans to provide for adequate diagnosis and restoration times. All normal open points shall be located in junction cans and protected with lightning arresters. If the underground system is served from overhead lines, the *Developer* will provide space for overhead structures for the purpose of entering the subterranean system in the *Residential Development* at points specified by *CECC*.

For extensions to a single service, the meter base or pedestal shall be located near the transformer on the lot line unless otherwise agreed to by *CECC*. In cases where *CECC* agrees it is not feasible, the meter base may be attached to the outside of a dwelling; however, all meter locations shall have a direct line of site and unobstructed access from their source transformer.

The *Developer* shall have the responsibility to install the equipment pads and vaults according to *CECC's* specifications and as outlined on the approved electrical layout plan.

#### **4.13 Environmental Considerations**

Electric facilities shall be routed so as to avoid open drainage ditches, creeks and marsh areas, or other areas that are environmentally sensitive, historically significant, or may hinder construction or operation of the electric system. Costs associated with areas requiring trench stabilization (retaining walls, concrete encasement, pipe sleeves, riprap, etc.) or any required environmental studies shall be paid by the *Developer*.

#### **4.14 Location of Cables and Equipment**

The underground electrical system will be located adjacent to lot lines fronting permanently platted and maintained, hard-surfaced roads within the utility easement. Pad-mounted transformers, secondary pedestals and switchgear normally will be located on front lot lines in areas accessible for operation and repairs. Pad-mounted transformers will be placed to allow energized switching operations. The front (lock side) of the equipment shall face the street and requires 15 feet clearance to obstacles.

#### **4.15 Use of Overhead Facilities**

Lots adjacent to overhead lines may be served from pole-mounted transformers with underground service lines.

#### **4.16 Other Utilities**

The *Developer* must provide *CECC* with any easement or separation requirements that other utilities require be maintained. *CECC* will not be responsible for spatial design conflicts if created by unknown third-party agreements. Additionally, *Developer* shall strictly enforce *CECC's* separation requirements from other utilities as stated below:

- 4.16.1 Water, sewer, or gas lines shall not share the ditch with *CECC* primary or secondary distribution lines and shall maintain five feet of horizontal clearance. Separation from deeper sewer lines shall be increased to allow access to the sewer line without disturbance of the power conduit ditch.



- 4.16.2 Telephone, cable TV, or communications lines may share *CECC's* primary or secondary distribution ditch and shall be separated as shown in drawings included in Appendix E.
- 4.16.3 Gas meters, communication pedestals, fire hydrants, or other obstacles or structures shall not be placed within seven feet of poles or within 15 feet of the front (lock) side and five feet of the other sides of pad-mounted electrical equipment.

#### **4.17 Sewer Lift Stations, Wells, and Other Non-Qualified Loads**

Electrical facilities required for sewer lift stations, wells, or other non-qualified loads within a *Residential Development* shall be installed at the expense of the *Developer*.

#### **4.18 Temporary Builder's Service**

Temporary service may be furnished from overhead facilities or from pad-mounted transformers and requires an *Application for Membership and/or Electrical Service* be completed (See section 5.8). Reasonable time must be allowed for construction of the needed temporary facilities. Temporary facilities will be installed and removed at the *Developer's* expense.

#### **4.19 Service to Residences**

Underground service routes will be run as short and straight as possible from *CECC's* secondary facilities to the home's service meter location. For underground systems, service conduit shall be furnished and installed by the homebuilder/owner and shall extend from the meter location to *CECC's* secondary source location. See Appendix E for specific requirements.

#### **4.20 Residential Development Performance Bonding**

The *Developer* shall issue a performance bond and submit it along with the completed *Residential Development Installation Agreement* to provide *CECC* assurance that the number of residences constructed and connected to the electric distribution system within the *Residential Development* will support the investment made by *CECC* in a reasonable amount of time. *CECC* will determine the amount of the performance bond based on the amount of its investment and will include the amount in the provided *Residential Development Installation Agreement*. The initial performance bond will be required for three years and may be released or partially released annually based on the number of residences built and connected to the electric system; the bond may be extended for an additional three years if the performance requirement has not been met. **After six years, any amount remaining on the performance bond will be collected either from the *Developer* paying the remaining amount or from collection against the bond.** The *Developer* may request at the end of each year the proportional amount of the performance bond be released. The percentage to be released will be determined by taking the number of residences constructed and connected to the electric distribution system within the *Residential Development* multiplied by *CECC's* latest average investment per member service extension and divided by *CECC's* investment in the *Residential Development*.

*CECC* will also accept a cash deposit, or an irrevocable letter of credit in lieu of a performance bond.

#### 4.21 Cost Estimates

CECC will prepare cost estimates itemized as shown in the list below and will include them with the *Residential Development Installation Agreement*. Prior to construction, the *Developer* will have to pay for the installation of street lights, removal and relocation of existing facilities, extension of facilities to non-qualified loads, inspection and testing costs, meter bases, and pads and vault costs. If CECC has agreed to perform the conduit, pad, and vault installation work, the amount would also be included in cost to be paid prior to construction. The performance bond or payment amount referenced in Section 4.20 will be based on the amount of CECC's investment in the *Residential Development*.

- ✓ Estimated cost to design (to determine the amount of the performance bond)
- ✓ Estimated cost to inspect (amount to be paid prior to construction)
- ✓ Estimated cost to perform acceptance test (amount to be paid prior to construction)
- ✓ Estimated cost for meter bases (amount to be paid prior to construction)
- ✓ Estimated cost for removal or relocation (amount to be paid prior to construction)
- ✓ Estimated cost for line extended to non-qualified load (amount to be paid prior to construction)
- ✓ Estimated cost to install street lighting (amount to be paid prior to construction)
- ✓ Estimated cost to trench and install conduit (to determine the amount of the maintenance bond)
- ✓ Estimated cost to install cable, terminations, grounding, and sleeves (to determine the amount of the performance bond)
- ✓ Estimated cost to purchase and install pads and vaults (amount to be paid prior to construction)

#### 4.22 Revisions to Submitted Information or Plats

In the event information changes after submittal of the *Application for Residential Development* but prior to the *Developer* receiving the *Residential Development Installation Agreement*, the revised information should be submitted along with a copy of the original *Application for Residential Development* form signed and dated with an explanation of the modification noted in the "Modifications" section of the application. If the information change is on the application form itself, the copy of the application should show the original information marked through (do not erase) and the new information written near that marked through and the change initialed. The form should also be signed and dated with an explanation of the modification noted in the "Modifications" section of the application.

In the event information changes after the *Residential Development Installation Agreement* has been received by the *Developer*, the revised information should be submitted along with a copy of the original *Application for Residential Development* form signed and dated with an explanation of the modification noted in the "Modifications" section of the application. If the information change is on the application form itself, the copy of the application should show the original information marked through (do not erase) and the new information written near that marked through and the change initialed. The form should also be signed and dated with an explanation of the modification noted in the "Modifications" section of the application. A new *Residential Development Installation Agreement* will be prepared and submitted to the *Developer* accounting for the revisions.

The return of the *Residential Development Installation Agreement* signed by the *Developer* shall serve as a statement of agreement by the *Developer* as to the final design and *Cost Estimate* being based on the development plans as they were originally submitted and may have been subsequently revised and are accurate as to how the *Residential Development* will be constructed. Any information or plan changes made after the submission of the *Residential Development Installation Agreement* by the *Developer* that result in additional costs to *CECC* will be at the *Developer's* expense.

## **5. Construction and Installation Requirements**

### **5.1 *Residential Development Installation Agreement***

A *Residential Development Installation Agreement* must be executed as detailed in Section 3.3 for *CECC* to begin field staking or installation of facilities. A sample of this form is included for reference as Appendix B.

### **5.2 *Marking of Property Corners, Lots, and Other Features***

The *Developer* shall identify, install, and maintain permanent property corners with lot numbers identified on stakes. The *Developer* will also provide for the marking of other necessary features such as back-of-curb and easement alignment as may be required in advance of any staking, construction, or installation work to be performed by *CECC*.

### **5.3 *Locating Underground Facilities***

If *CECC* agrees to install the conduit, pads, and vaults, the *Developer* must provide information and arrange field spotting of gas, water, sewer, drainage, and other underground facilities when requested. *CECC* will assume no responsibility for damage to facilities not marked.

### **5.4 *Installation, Removal, and Relocation of Overhead Electric System Facilities***

Where the electric system for a development is to be built using overhead lines or where overhead line are to be removed or relocated as part of a development approved for underground lines, *CECC* will perform the installation, removal, or relocation of all poles, anchors, guys, conductors, and other necessary appurtenances to the pole. The *Developer* will be responsible for all cost associated with this work.

### **5.5 *Installation of Conduits and Equipment Pads and Vaults***

Where a development is approved for underground lines, the *Developer* shall be responsible for the opening of all trenches, leveling of equipment pads, excavating for pedestals and vaults if required, installing conduits and warning tape in the trench, and after approval by a *CECC* inspector, backfilling all trenches. All work shall be performed in accordance with *CECC* specifications (see Appendix E). All permits or notifications required for excavation are the responsibility of the *Developer* as well as the installation and maintenance of any required erosion or storm water controls. If *CECC* has agreed to install conduits, pads, and vaults, the installation will not proceed until any site grading work is to a point within six inches of final grade.

#### **5.5.1 *Coordination and Inspection***

The *Developer* or his designee shall schedule and coordinate conduit installation

activity with *CECC* in order to make the most efficient use of both the excavation crew and inspector. The *CECC* inspector must see and inspect all conduits prior to backfilling. Any sections of conduit not seen and approved for backfilling shall not have cable installed until they have been uncovered for inspection and approved for backfilling. Approval for backfilling by the inspector does not constitute transfer of ownership, final approval, or relieve the *Developer* of responsibility for defects in the installation that may be discovered later. See Sections 5.5.2 and 5.5.3 for further information.

All inspection costs are the responsibility of the *Developer*. The *Residential Development Installation Agreement* shall show the inspection costs which must be paid before installation may begin. Presently, the cost for inspection of *Residential Developments* is \$0.50 per horizontal foot of installed conduit.

### **5.5.2 Conduit System Acceptance**

After the installation of conduit is completed, *CECC* will perform acceptance testing to confirm the following:

- ✓ Conduit has the specified cover depth from final grade
- ✓ Conduit has the specified horizontal separation from other underground structures
- ✓ Conduit is type specified
- ✓ Conduit is size specified
- ✓ Conduit is marked and has pull string installed consisting of locatable 2,500 lb. mule tape or equivalent shall be installed inside each conduit at the time of installation with a minimum of four feet (4') excess coiled and secured on each end.
- ✓ Conduit joints are glued
- ✓ Conduit sweeps are of radius specified
- ✓ Conduit run total length is within limits
- ✓ Conduit run total angle is within limits
- ✓ Conduit passes mandrel test
- ✓ Conduit configuration is correct into pads and vaults
- ✓ Conduit extension above grade is as specified
- ✓ Conduit stub outs are marked
- ✓ Equipment pads and vaults are level
- ✓ Equipment pads and vaults are sized and oriented as specified
- ✓ Equipment pads and vaults have specified horizontal separation from other structures or obstacles
- ✓ Equipment pads and vaults are ready to accept their equipment.

**NOTICE:** The cover depth must be from final grade for all areas including where future changes in grade may occur such as cuts for driveways. The *Developer* shall anticipate future cuts and make accommodations when installing the conduits. The maintenance bond may be used to correct conduits with less than specified cover (See Section 5.5.3). *CECC* will not install any facilities if the minimum cover depth is less

than required by section 2.1 of the attached Underground Conduit Installation Specification and Drawings (see appendix E). At no time will a swell or mound be included in the required cover depth.

No cables will be installed in the conduit until all acceptance testing is completed and any deficiencies corrected to *CECC*'s satisfaction and a maintenance bond is provided as specified in Section 5.5.3 below. Acceptance of the installation does not relieve responsibility for defects in the installation discovered within the bonding period.

All acceptance testing costs are the responsibility of the *Developer*. The *Residential Development Installation Agreement* shall show the acceptance testing costs which must be paid before installation may begin. Presently the cost for acceptance testing of *Residential Developments* is \$0.50 per horizontal foot of installed conduit.

#### **5.5.3 Conduit System Maintenance Bonding**

The *Developer* shall provide a maintenance bond in the amount of fifty percent (50%) of the estimated cost provided by *CECC* for the conduit installation. The life of the bond shall be two (2) years. The *Developer* shall issue the bond as a condition of final acceptance of the conduit, pads, and vaults; however, the ownership and responsibility for the conduit, pads, and vaults does not transfer from the *Developer* to *CECC* until cables are installed in the conduit and equipment is set on the pad or vault. A cash deposit or irrevocable letter of credit may be submitted in lieu of the maintenance bond. The developer will be responsible for ANY cost associated with damage to *CECC* facilities during the entirety of the two-year maintenance term.

#### **5.5.4 Installation of Cable and Equipment**

*CECC* will schedule installation of cables in conduit, setting equipment on vaults and pads, and connecting the system for energization once the acceptance testing is completed, any deficiencies are corrected, and the maintenance bond is submitted. Based on present installation workload, *CECC* will also provide the *Developer* with an estimate of when the installation will begin and the estimated time it will take to complete the installation. The developer will be responsible for the repair or cost of repair, at *CECC*'s sole discretion, for any of developer's facilities that *CECC* deems unfit for or incompatible with the installation of *CECC*'s facilities.

#### **5.5.5 Alternate Installation of Conduits and Equipment Pads and Vaults**

The *Developer* may request *CECC* to make the arrangements with a contractor to install the conduit, pads, and vaults. If *CECC* elects to arrange for a contractor to perform the installation of the conduit, pads, and vaults, the *Residential Development Installation Agreement* will designate *CECC* as the installer for these items and associated costs shown on the *Cost Estimate* must be submitted by the *Developer* prior to any staking or construction. Any rock trenching, compaction, or boring costs incurred by *CECC* during installation of conduits will be in addition to the estimates shown in the *Residential Development Installation Agreement* and will be payable before any cables are installed. All other requirements remain the responsibility of the *Developer* including costs for inspection and acceptance testing as specified in Sections 5.5.1 and 5.5.2.

#### **5.5.5.1 Road Crossings**

In the event *CECC* is to arrange for the conduit to be installed, the *Developer* shall install any required road crossing sleeves prior to the completion of the roadways. The *Developer* shall install road crossing conduit as specified by *CECC* on the design. Ends of conduit shall be sealed to prevent entry of materials and shall be marked clearly using stakes or posts to enable *CECC* to locate both ends of the conduit during subsequent conduit installation activity.

#### **5.5.5.2 Equipment Locations**

In the event *CECC* is to arrange for the pads and vaults to be installed, the *Developer* shall provide a reasonably flat 8' by 8' area at final grade for pad-mounted equipment locations. See Appendix E for typical equipment pad or vault details.

#### **5.5.5.3 Work Scheduling**

In the event *CECC* is to arrange for the conduit, pads, and vaults to be installed, the *Developer* or their designee shall coordinate and schedule construction and installation with other facilities in the *Residential Development*.

### **5.6 Right of Way**

The *Developer* is responsible for the clearing of any right of way as may be required by *CECC*; and, in developments approved for underground lines, for establishing final grade along the underground line route before the start of any excavation. Any changes in grade that require changes or relocation of *CECC*'s electrical facilities shall be at *Developer's* expense.

### **5.7 Changes to Approved Plans**

Immediately notify *CECC* of any changes to the original approved plat of lot lines, easements, or roadway layout, or any changes involving the relocation of *CECC* or other utilities' facilities. The *Developer* shall be responsible to pay total cost of relocation of *CECC*'s facilities (including engineering costs) due to field changes after submittal of the completed *Residential Development Installation Agreement*.

### **5.8 Service Installations**

Any temporary or permanent electrical service installations requested by the *Developer* shall require a completed *Application for Membership and/or Electrical Service*, the form of which is attached to and included for reference as Appendix D. Additionally, the payment of all applicable fees and any locational requirements must be completed to start the installation process. Contact *CECC* for a copy of the application, amount of fees, and other requirements for the specific location.

### **5.9 Damages to Cooperative Facilities**

The *Developer* will reimburse *CECC* for any relocation of, or damages to *CECC*'s conduit system, transformers, pedestals, or other distribution equipment caused by actions of the *Developer* or the *Developer's* contractors or agents.



**Carroll Electric  
Cooperative Corporation**

## Application for Residential Development

Before the design of the electric system can proceed, this form must be completed by the Developer and returned with the application and deposit.

This application for design of electric facilities in a *Residential Development* is made by the *Developer* to Carroll Electric Cooperative Corporation (CECC). Once the completed application and fee is submitted to CECC, a *Residential Development Installation Agreement* including preliminary design and associated *Cost Estimate* for electric facilities will be prepared and provided to the *Developer* with reasonable diligence. This application, the *Residential Development Installation Agreement*, and *Cost Estimate* expire one (1) year from the initial application date. Changes by the *Developer* to the *Development* plan may result in additional design fees.

### Provide the following information:

1. Development Name (“*Development*”): \_\_\_\_\_

2. Development Location (City and County): \_\_\_\_\_

3. *Developer* Name (“*Owner/Developer*”): \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

4. Is the *Developer* a corporation, LLC, or other entity? ☐ Yes ☐ No

If “yes” please provide the name and title of all owners or officers of the entity, as well as a completed IRS form W-9 (a copy of which is attached to this application):

Name	Title
_____	_____
_____	_____
_____	_____
_____	_____

5. Provide the name and contact information for the *Development* representatives who have decision-making authority.

Name	Phone Number	E-mail
_____	_____	_____
_____	_____	_____
_____	_____	_____

6. Is the *Development* subject to a planning jurisdiction?

☐ Yes ☐ No

If “yes” please provide:

Name of Jurisdiction: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Telephone: \_\_\_\_\_

Email: \_\_\_\_\_

7. Is the *Development* going to be constructed in phases?

☐ Yes ☐ No

If “yes” attach a copy of the overall *Development* plan including all proposed phases.

8. How many lots/units are planned for this phase of the *Development*? \_\_\_\_\_

9. What is the expected range of living area (sq. ft.) of the homes in the *Development*?

Single Family \_\_\_\_\_ Multi-family \_\_\_\_\_ Mixed Use \_\_\_\_\_

10. Will natural gas be available to homes in the *Development*?

☐ Yes ☐ No

11. Is equipment being installed that requires three-phase power?

☐ Yes ☐ No

If “yes” attach a detailed description of the specific power requirements for each load, include the type of the electrical load, motor horsepower, locked rotor current, full load current, voltage, and location within the development.

12. Will there be a power requirement for amenities such as motor-operated gates, public use areas, signage or landscape?

☐ Yes ☐ No

If “yes” attach a detailed description of the specific power requirements and the locations within the *Development*.

13. Is the *Developer* proposing to use CECC streetlights in the *Development*? ☐ Yes ☐ No

The *Developer* is responsible for obtaining approval from the planning jurisdiction for the streetlights.

14. Will the streets located within the development be considered public or private? ☐ Public ☐ Private

*If private, the developer/POA will need to establish an account with CECC prior to the lights being energized.*

15. Is the *Developer* proposing to relocate or remove any of Carroll Electric’s existing electric distribution facilities?

☐ Yes ☐ No

16. Submit the following to complete the application:

- ☐ Overall *Development* plan showing all proposed phases.
- ☐ Timeline for construction – including all phases (if applicable).
- ☐ Approved plat drawing of *Development* in an AutoCAD format including plans for other utilities and easement language (see Section 4.4 and 4.6 of the “*Residential Development Extension Standard*”).
- ☐ Detailed description of specific power requirements if three-phase power is required, including the type of electrical load, motor size, voltage, and location.
- ☐ Load description for and location of additional service requirements for amenities such as motor-operated gates, public use areas, etc.



- ☐ A copy of the *Development* bill of assurance (protective covenants) (see Section 4.7 of the “*Residential Development Extension Standard*”).
- ☐ A copy of a completed IRS form W-9.
- ☐ \$1,000.00 nonrefundable deposit.

NOTE: Typically, Carroll Electric will provide the initial electrical design for the *Development* at no charge. However, if the *Developer* desires to use an outside engineering contractor to design the underground electrical facilities within the *Development*, they should contact CECC for a list of approved engineering contractors, as well as design guidelines.

By signing below, the *Developer* agrees they have received a copy of the CECC “*Residential Development Extension Standard*,” which is also available from a CECC representative, or at [www.carrollecc.com](http://www.carrollecc.com), and understands and agrees to the requirements and conditions set forth therein. The *Developer* further agrees that all electric facility extensions shall be in accordance with the CECC line extension tariffs and the CECC “*Residential Development Extension Standard*” that are in effect on the date hereof or as they may be modified thereafter; and agrees to provide such to its engineers and contractors in order to avoid delays or additional costs during the construction of their development.

The *Developer* further agrees that the Cooperative shall not be held liable for any losses, damages, penalties, or expenses for any delay in delivery, including any delay at any point in the supply chain, of materials of any nature necessary for this project. If for any reason, the quantities of any such materials available to the Cooperative are less than its total needs, the Cooperative may allocate its available supply of materials among its members and/or itself, for any use whatsoever, in such a manner the Cooperative deems proper in its sole discretion, without thereby incurring liability on account of the method of allocation or its implementation. In no event shall the Cooperative be liable for any incidental, consequential, punitive, or any other damages, expenses, or costs of any kind, including, but not limited to, lost profits, loss of use, loss of time, shutdown, or slowdown costs, inconvenience, lost business opportunities, damage to goodwill or reputation, or other economic loss, regardless of whether such liability is based on breach of contract, tort, strict liability or otherwise, and even if advised of the possibility of such damages or such damages could have been reasonably foreseen.

*Developer* further agrees CECC may share relevant information with *Developer*’s engineers, designers, banks, insurance/bonding agencies, and others relative to the *Development*.

\_\_\_\_\_  
Owner/*Developer*’s Printed Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

\_\_\_\_\_  
Owner/*Developer*’s Signature

#### MODIFIED

	Date:	Signature:	Explanation:
Revision 1			
Revision 2			

Form **W-9**  
(Rev. October 2018)  
Department of the Treasury  
Internal Revenue Service

## Request for Taxpayer Identification Number and Certification

▶ Go to [www.irs.gov/FormW9](http://www.irs.gov/FormW9) for instructions and the latest information.

**Give Form to the requester. Do not send to the IRS.**

Print or type.  
See Specific Instructions on page 3.

1	Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.			
2	Business name/disregarded entity name, if different from above			
3	Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only <b>one</b> of the following seven boxes. <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <span><input type="checkbox"/> Individual/sole proprietor or single-member LLC</span> <span><input type="checkbox"/> C Corporation</span> <span><input type="checkbox"/> S Corporation</span> <span><input type="checkbox"/> Partnership</span> <span><input type="checkbox"/> Trust/estate</span> </div> <div style="margin-top: 5px;"> <input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ▶ _____         </div> <p style="font-size: small;">Note: Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is <b>not</b> disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner.</p> <div style="margin-top: 5px;"> <input type="checkbox"/> Other (see instructions) ▶ _____         </div>		4	Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):  Exempt payee code (if any) _____  Exemption from FATCA reporting code (if any) _____  <p style="font-size: x-small;">(Applies to accounts maintained outside the U.S.)</p>
5	Address (number, street, and apt. or suite no.) See instructions.		Requester's name and address (optional)	
6	City, state, and ZIP code			
7	List account number(s) here (optional)			

### Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

**Note:** If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number											
					-			-			
or											
Employer identification number											
					-						

### Part II Certification

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
- I am a U.S. citizen or other U.S. person (defined below); and
- The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

**Certification instructions.** You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

**Sign Here**

Signature of  
U.S. person ▶

Date ▶

## General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

**Future developments.** For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to [www.irs.gov/FormW9](http://www.irs.gov/FormW9).

## Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

- Form 1099-INT (interest earned or paid)

- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)
- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)  
Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

*If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding, later.*



**Carroll Electric  
Cooperative Corporation**

## **Residential Development Installation Agreement**

*With Preliminary Design and Cost Estimate*

This agreement is made this  day of , 20 between Carroll Electric Cooperative Corporation (hereinafter called the *Cooperative*) and  (hereafter called *Developer*).

A preliminary design and associated *Cost Estimate* is attached to, and incorporated into, this agreement showing Facilities the *Developer* wishes to have installed to serve the property designated on the plans and to be known as  in  County, Arkansas

### **OVERVIEW**

Having completed an *Application for Residential Development* on , 20, the *Developer* agrees to pay, before installation of line, a total charge of \$  as shown for in amounts specified below.

### **THE PARTIES AGREE**

1. The total cost to be paid to the *Cooperative* by the *Developer* is \$   
(Schedule is set out in the attached cost estimate)
2. ~~The *Developer* will provide a maintenance bond in the amount of \$  to be paid to the *Cooperative* upon completion of design and cost estimates.~~  
**For Reference Purposes Only: CECC will provide a complete agreement for signature upon completion of design and cost estimates.**
3. The *Developer* will provide a maintenance bond in the amount of \$
4. The Agreement between the *Cooperative* and the *Developer* consists of this Agreement, the *Application for Residential Development*, the *CECC Residential Development Extension Standard*, and Cost Estimate, and comes into effect upon signature.
5. ☐ *Developer* ☐ *Cooperative* will install conduit, vaults, meter base mounts, and transformer pads.

If the *Cooperative* is to install conduit, transformer pads, and vaults, the *Developer* understands and agrees any cost for rock encountered during this work is not included in the estimated amounts above and any costs incurred due to soil compaction or boring requirements may not be included; but, in either case any amount not included in the estimate will be added after the installation and shall be paid prior to the *Cooperative* installing any cables.

6. ☐ *Developer* to install Developer-owned street lighting and metering point(s).

☐ Developer to install conduit only for *Cooperative* owned lighting.

☐ *Cooperative* to install conduit for *Cooperative* owned street lighting.

See section 4.8 of *Residential Development Extension Standard*

7. The *Cooperative* shall not be liable as a result of the *Developer* or any of his agent's work in connection with opening or closing of the trench or performing any other work in connection with the installation of any electrical facilities or the operation of the same except by the *Cooperative's* own personnel or authorized representative.

8. ☐ *Developer* to furnish and install meter bases.

☐ *Cooperative* to furnish and install meter bases.

#### Meter Base Release

A service order and wiring fee will be created and collected for each future account that will utilize a meter base package. I understand payment of each meter base package constitutes my acceptance of this release for each account.

Upon installation by the *Cooperative*, I assume full responsibility and control of all material(s) obtained hereunder. Any cost for repair, replacement, or removal of the material(s) shall be at my expense. I understand that I am responsible for the selection of the material(s) and for the workmanship of the installation. If the material(s) are damaged or destroyed, I agree to replace the material(s) at my expense. I agree to indemnify and hold the *Cooperative* harmless from any liability from any cause whatsoever that might be claimed by me, my subsequent owner, or any person or entity, claiming damages by virtue of or arising out of the use or condition of the material(s), or any other function or circumstances relating to the material(s). In the event any legal action is brought against the *Cooperative* by any party for any reason regarding a defect in the material(s), the use or condition of the material(s), or any other function or circumstances relating to the material(s), the undersigned agrees to reimburse the *Cooperative* for any and all costs, charges, expenses, judgments, or otherwise, together with its attorney's fees and costs, to investigate and/or defend such claims.

I agree to indemnify and save and hold the *Cooperative* harmless from any liability from any cause whatsoever that might be claimed by me, my subsequent owner, or any person or entity, claiming damages by virtue of or arising out of the use or condition of the material(s), or any other function or circumstances relating to the material(s). In the event any legal action is brought against the *Cooperative* by any party for any reason regarding a defect in the material(s), the use or condition of the material(s), or any other function or circumstances relating to the material(s), the undersigned agrees to reimburse the *Cooperative* for any and all costs, charges, expenses, judgments, or otherwise, together with its attorney's fees and costs, to investigate and/or defend such claims.

9. All communication should be directed to:

Carroll Electric Cooperative Corporation  
Attn: Engineering  
P.O. Box 4000  
Berryville AR 72616

Attn:


This is an agreement for installation of Facilities in a *Residential Development* and is not a contract for electric service. *Developer* acknowledges electric service will be provided to Members who enter into separate member



and/or electric service agreement with the Cooperative. In the event the *Developer* requires a source of electrical energy for power supply, such energy will be supplied by the Cooperative in accordance with provisions of its standard service extension policies and approved rates and tariffs.

SIGNED by or on behalf of the *Developer* and the Cooperative on the date specified above.

*For Developer*

*for Carroll Electric Cooperative Corporation*

Signature \_\_\_\_\_

Signature \_\_\_\_\_

Printed Name \_\_\_\_\_

Printed Name \_\_\_\_\_

MODIFIED

	Date:	Signature:	Explanation:
Revision 1			

	Date:	Signature:	Explanation:
Revision 2			

	Date:	Signature:	Explanation:
Revision 3			

**SAMPLE**

For Reference Purposes Only. CECC will provide a complete agreement for signature upon completion of design and cost estimates.

Cost Estimate for

XXXXXXX

Revision Number

0

	ITEM	ESTIMATED COST	INSTALLATION RESPONSIBILITY	COST RESPONSIBILITY	NOTES
<u>Design, Testing, &amp; Maintenance</u>					
	Initial Design	\$ -	CECC	CECC	Subject to performance bond as guarantee of loads
	Inspection, Testing, and Additional Design	\$ -	CECC	Developer	Via payment to CECC
	Less \$1,000 Deposit	\$ (1,000.00)	CECC	Developer	Via payment to CECC
	Sub Total	\$ (1,000.00)			
<u>Existing Facilities Relocation and/or Removal</u>					
	Sub Total	\$ -	CECC	Developer	Via payment to CECC
<u>Cash Required for Insufficient Meter Requirements</u>					
	Sub Total	\$ -	CECC	Developer	Via payment to CECC
<u>New Services to Non-Qualified Loads</u>					
	Sub Total	\$ -	CECC	Developer	Via payment to CECC
<u>Street Lighting Installation</u>					
	Lighting Trench and Conduit	\$ -	Developer	Developer	Subject to maintenance bond.
	Lighting Cable	\$ -	CECC	Developer	Via payment to CECC
	Lighting Poles	\$ -	CECC	Developer	Via payment to CECC
	Lighting Heads Deposits	\$ -	CECC	Developer	Via payment to CECC
	Lighting Cost for Underground	\$ -	CECC	Developer	Via payment to CECC
	Lighting Heads Material	\$ -	CECC	CECC	CECC provides
	Additional Costs Encountered	\$ -	Developer	Developer	
	Sub Total	\$ -			
<u>Primary/Secondary System Installation</u>					
	New Overhead Line	\$ -	CECC	CECC	Subject to performance bond as guarantee of loads
	Trench and Conduit	\$ -	Developer	Developer	Subject to maintenance bond.
	Cable, Terminations, Switching, and Grounding	\$ -	CECC	CECC	Subject to performance bond as guarantee of loads
	Junction Can, Sleeves	\$ -	Developer	Developer	Subject to performance bond as guarantee of loads
	Equipment Pads and Vaults	\$ -	Developer	Developer	Subject to maintenance bond. Via payment to CECC
	Equipment Pads and Vaults Inst	\$ -	Developer	Developer	Subject to maintenance bond.
	Pad-Mounted Equipment	\$ -	CECC	CECC	CECC Provides
	Sub Total	\$ -			Via payment to CECC
	TOTAL	\$ (1,000.00)			
	\$ (1,000.00)		Amount Payable by Developer to CECC		
	\$ -		Amount of Contribution by CECC		
	TOTAL	\$ (1,000.00)			

For Reference Purposes Only. CECC will provide a complete agreement for signature upon completion of design and cost estimates.

Number of Qualified Meter Locations  
Required for Performance Bond release - 0

\$ -	Amount of Performance Bond by Developer*** (3 yr hold)
\$ -	Amount of Maintenance Bond by Developer**** (2 yr hold)

Developer's Signature

Date

In instances where CECC has agreed to install conduits, pads, and vaults, the cost for rock, boring, and compaction encountered is not included in estimates. In instances where CECC has agreed to install conduits, minimum conduit stabilization cost is included; however, field conditions may require additional stabilization which is not included in this estimate

\*\*\*Performance Bonding is based on CECC's Contribution toward development less the cost of transformers.

\*\*\*\*Maintenance Bond is 50% of ditch and conduit value plus equipment pads and vault cost



Application for Changes to Street Lighting

Municipality/Entity \_\_\_\_\_ Requisition No. \_\_\_\_\_

Address \_\_\_\_\_ Date \_\_\_\_\_

City/State/Zip \_\_\_\_\_ WO No. \_\_\_\_\_

Installation of \_\_\_\_\_ street light(s) is hereby requested at the location(s) listed below in accordance with Carroll Electric’s rate schedule number 5, which is on file with the Arkansas Public Service Commission.

Location or Description:

\_\_\_\_\_

NOTE: Carroll Electric no longer provides High Pressure Sodium lights, except for the 250 Watt type. Future light maintenance will involve a replacement with a comparable LED light and corresponding rate.

SAMPLE

Member/Owner \_\_\_\_\_ Carroll Electric Cooperative Corporation

Title \_\_\_\_\_

For Reference Purposes Only. CECC will provide a complete agreement for signature upon completion of design and cost estimates.

Perpetual Inventory of Lights

Wattage Size	MV 175	HPS 100	MV 250	HPS 150	MV 400	MH 400	HPS 250	MH 1000	LED 70	LED 70C	LED 70D	LED 129	LED 266
Added													
Removed													

Main Account Number \_\_\_\_\_

MemberSep Number \_\_\_\_\_

Fixture Account No.(s)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



**Carroll Electric  
Cooperative Corporation**  
Reliable | Affordable | Local

CECC USE ONLY	
Account Location No.	
Member Sep.	Member No.

RESIDENTIAL APPLICATION FOR SERVICE

Application Date	Requested Service Start Date (Requests that fall on weekends or observed holidays will be processed the next Business Day.)			
Service Location Physical Address	Apt. / Suite	City	State	Zip
Billing Address	Apt. / Suite	City	State	Zip
Previous Address (If Applicable)	Apt. / Suite	City	State	Zip
Applicant Full Name (First Last)	Social Security Number		Date of Birth	
ID No. (Driver's License, State ID, Military ID, Passport, etc.)	Primary/Home Phone Number	Secondary/Mobile Phone Number	Mobile Carrier	
Email Address	Place of Employment	Work Phone Number		
Co-Applicant Full Name (First Last)	Social Security Number		Date of Birth	
ID No. (Driver's License, State ID, Military ID, Passport, or I-551)	Primary/Home Phone Number	Secondary/Mobile Phone Number	Mobile Carrier	
Email Address	Place of Employment	Work Phone Number		



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CECC USE ONLY

Account Location No.

Member Sep. \_\_\_\_\_ Member No. \_\_\_\_\_

☐ Yes    ☐ No (Complete New Construction section on page 3.)

\*Please list the meter number(s) or describe the facilities that will be served at this location.

☐ Tenant

Landlord's Name

Landlord

**Tenant's Name**

Check the box(es) if your account should be labeled as:

☐ Age 65 or Older

☐ Hand capped (Doctor's certification required - certification from a physician, licensed psychologist, or a State Veterans Administration, the Social Security Administration, or the Department of Human Services, the State Hospital, or a licensed mental health center.)

\*Please list your active account number(s)

If you would like the above referenced account(s) disconnected, please list the account number(s) and desired disconnect date.

If there is a **SECURITY LIGHT** at this location, would you like to keep it?

☐ Yes, I choose to keep the security light(s) that are currently connected at my account location and agree to pay the associated monthly service fee(s).

☐ No, I choose to disconnect the security light(s) that are currently connected at my account location and do not want to pay the associated monthly service fee(s). I also understand that if I were to choose to reconnect the security light(s) at a later date, a reconnection fee of \$50 will be charged per light.

**NOTE:** If you would like to have a security light installed, please complete the optional installation section on page 3.

Please provide any additional comments or information that would be helpful in processing this application.

For Reference Purposes Only. CECC will provide a complete agreement for signature upon completion of design and cost estimates.

☐ Please enroll me in eBILLING

eBilling email address

Must establish myAccount ID and password to view bills.  
See [myaccount.carrollecc.com](http://myaccount.carrollecc.com) for details.

☐ **Please enroll me in eDRAFT** I authorize Carroll Electric to electronically debit my account monthly, for the amount stated on my bill(s) and if necessary, electronically credit my account to correct erroneous debits. I understand this authorization remains in full force and effect until I notify Carroll Electric in writing, at least five days before the due date. Cancellation instructions are available at [carrollecc.com](http://carrollecc.com) or by calling 1-800-432-9720.

☐ Checking

Name(s) on Bank Account

Bank Name

Bank City, State

☐ Savings

Bank Routing Number (max 9 numbers)

Bank Account Number (max 15 numbers)

☐ Use the information above to electronically debit my existing accounts (existing members only).



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Cooperative Corporation**

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Account Location No.	
Member Sep.	Member No.

**New Security Light Installation** ☐ I would like to have (a) security light(s) installed at my new service location and agree to pay the \$50.00 light connect fee(s) and the associated monthly service fee(s). Carroll Electric offers the following light for residential use:

- LED - Standard Residential Wattage - \$12.09

**COMPLETE THE SECTION BELOW ONLY IF APPLYING FOR SERVICE AT A NEW CONSTRUCTION SITE**

According to Rate Schedule 17 on file with the Arkansas Public Service Commission ([carrollecc.com/upload/apsc-rate-schedule-17.pdf](http://carrollecc.com/upload/apsc-rate-schedule-17.pdf)), the responses provided below are taken into consideration when determining how additional construction costs will be applied.

Property Description (Lot, Block, Phase, Subdivision, etc.)	Complete the information below about the structure to be serviced.		
	<u>Sanitation System</u>	<u>Pressurized Water System</u>	<u>Permanent Foundation</u>
	<input type="checkbox"/> Sanitary Sewer	<input type="checkbox"/> City	<input type="checkbox"/> Yes <input type="checkbox"/> No
What type of structure will this serve? (House, shop, boat dock, etc.)	<input type="checkbox"/> Septic	<input type="checkbox"/> Well	Square Feet of Living Space
	<input type="checkbox"/> None	<input type="checkbox"/> None	
<div style="border: 2px solid red; padding: 10px; font-size: 48px; color: red; font-weight: bold; margin: 0 auto;">SAMPLE</div>			
Carroll Electric offers a standard meter pedestal installation and provides the following options (please select one of the options below):			
<input type="checkbox"/> 200 AMP Meter Base - \$385.00	<input type="checkbox"/> 400 AMP Meter Base - \$1488.00	<input type="checkbox"/> None	
Turnkey Installation (signed release form required)			
<ul style="list-style-type: none"> <li>• 200-amp main breaker</li> <li>• 20-amp circuit breaker</li> <li>• GFCI outlet</li> <li>• Slip joint for permanent power</li> </ul>	<ul style="list-style-type: none"> <li>• Two 200-amp main breakers</li> <li>• 20-amp circuit breaker</li> <li>• GFCI outlet</li> <li>• Slip joints (2) for permanent power</li> </ul>	Select this option if you will be providing your own meter base or are undecided at this time.	

If you choose the 200-amp or 400-amp meter base option, please complete the **Meter Base Package Release form** located on page 4 of this application.



# Carroll Electric Cooperative Corporation

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CECC USE ONLY

Account Location No. \_\_\_\_\_

Member Sep. \_\_\_\_\_ Member No. \_\_\_\_\_

**Complete this form only if you have chosen to purchase a meter base installation from the Cooperative as noted on page 3 of the application.**

I hereby acknowledge receipt of and accept full ownership of the following described material(s) from **Carroll Electric Cooperative Corporation** (the "Cooperative") upon the following terms and conditions:

Upon installation by the Cooperative, I assume full responsibility and control of all material(s) obtained hereunder. Any costs for repair, replacement, or removal of the material(s) shall be at my expense. I understand that a licensed electrician should be the only party who repairs, replaces, or removes the materials. If the materials are installed in an area where an official inspection is required by any government agency, or any county, city, or other controlling entity, I agree that I am completely responsible for having the materials and/or installation inspected by an appropriate expert. The Cooperative will work with all local inspection offices to ensure a proper installation.

I agree to indemnify and save and hold the Cooperative harmless from any liability from any cause whatsoever that might be claimed by me, any subsequent owner, or any person or entity, claiming damages by virtue of or in any manner arising out of a defect in the material(s), the use or condition of the material(s), or any other function or circumstances relating to the material(s). In the event any legal action is brought against the Cooperative by any party for any reason regarding a defect in the material(s), the use or condition of the material(s), or any other function or circumstances relating to the material(s), the undersigned agrees to reimburse the Cooperative for any and all costs, charges, expenses, judgments, or otherwise, together with its attorney's fees and costs, to investigate and/or defend such claims.

I agree that the Cooperative shall not be held liable by me or any other party for any losses, damages, penalties, or expenses for any delay in delivery, including any delay at any point in the supply chain of the materials requested herein. If for any reason the quantities of any materials available to the Cooperative are less than the Cooperative's needs, the Cooperative may allocate its available supply of products among its existing or prospective purchasers in its sole discretion. I agree to accept the Cooperative's allocation of its available supply of products in the Cooperative's sole discretion, without thereby incurring liability or claim of any kind, including but not limited to, lost profits, loss of use, loss of time, shutdown or slowdown costs, inconvenience, lost business opportunities, damage to goodwill or reputation, or other economic loss, regardless of whether such liability is based on breach of contract, tort, strict liability or otherwise, and even if advised of the possibility of such damages or such damages could have been reasonably foreseen. The liability of the Cooperative, and my sole and exclusive remedy for damages for any claim of any kind whatsoever under this agreement, regardless of legal theory, shall not be greater than the actual purchase price of those materials with respect to which the claim is made. I agree to make inquiries as to the availability of said materials well in advance of my need for those materials and that the Cooperative is under no obligation, whatsoever, to alert me that it does not, or will not, have the materials requested herein at such time as they are needed, nor does the Cooperative have any duty to alert me to any delays it may encounter or has encountered in obtaining the materials.

Printed name

Account Number (if known)

Signature

Date

ACKNOWLEDGED:

Carroll Electric Cooperative Corporation

CE Representative



## Carroll Electric Cooperative Corporation

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### CECC USE ONLY

Account Location No. \_\_\_\_\_

Member Sep. \_\_\_\_\_

Member No. \_\_\_\_\_

### TERMS AND CONDITIONS

The Applicant, whose signature appears below, applies to the CARROLL ELECTRIC COOPERATIVE CORPORATION of Berryville, Arkansas, (hereinafter called the "Cooperative") for membership and/or electric service to be supplied at the location herein described and, upon request, at any other location within the area served by this Cooperative. This agreement shall supersede and replace any previous agreement and shall apply to each location the Cooperative furnishes electric service to the applicant.

The Applicant agrees to be bound by and to comply with all Rules of the Arkansas Public Service Commission (APSC), other applicable laws and regulations, as well as the Cooperative's approved tariffs, Articles of Incorporation, Bylaws, consumer classifications, rates, charges, and service rules and regulations and all other applicable terms and conditions set by the Cooperative, both as the same now exists or may hereafter be adopted, repealed, amended, or supplemented; to pay all fees, deposits, and charges in accordance with the rates, rules, and regulations as now exist or as may hereafter be adopted; and authorizes the Cooperative to verify information provided, including the use of any credit reporting agency to verify identity.

The Cooperative shall operate on a not-for-profit basis as defined by law. As such, all patronage capital, shall be held by the Cooperative in accordance with Ark. Code Ann. §23-18-327 until such time as it is distributed by the Cooperative. In the event the Cooperative distributes patronage capital, it shall remain the responsibility of the Applicant to keep the Cooperative informed of the Applicant's mailing address.

In the event the Applicant is or becomes delinquent, the Cooperative shall follow the rules and tariffs approved by APSC, and thereafter, the Applicant agrees to pay the membership fee, deposit, and future patronage capital to extinguish such indebtedness plus any accumulated late charges and interest. Further, the Applicant agrees to pay all costs of collection including attorney's fees, collection fees, and any other related fees and costs.

The Applicant will cause and keep his premises to be wired in accordance with wiring specifications of the appropriate governing jurisdiction and the Cooperative assumes no responsibility for loss or damage due to defective wiring and/or equipment located on the Applicant's side of the meter installation or other agreed to point of delivery.

The applicant understands that the Cooperative shall use reasonable diligence to provide a constant and uninterrupted supply of electric power and energy

hereunder. If the supply of electric power and energy shall fail or be interrupted, or become defective through acts of God, governmental authority, action of the elements, public enemy, epidemic/pandemic, cyber-attack, accident, strikes, labor troubles, required maintenance work, inability to serve right-of-way, equipment failure, or any cause beyond the reasonable control of the Cooperative, the Cooperative shall not be liable therefore or for damages caused thereby.

Electric service shall be supplied within the voltage range prescribed by Arkansas Public Service Commission's Special Rules - Electric. The Cooperative's standard service voltage will be 120/240 volts, AC, unless otherwise stated in accordance with the approved schedules, rules, regulations, or by mutual agreement. However, in all cases, the voltage supplied to the Applicant may vary by  $\pm 5$  percent measured at the meter. Voltage variations in excess of those specified shall not be considered a violation if variations are caused by:

- (1) The operation of power equipment on a customer's premises;
- (2) The action of the elements; or,

(3) Infrequent and unavoidable fluctuations of short duration in station operation.

The Applicant hereby authorizes the Cooperative's use of information for the purpose of a credit check and depending on the results of that credit check, I may be required to pay a deposit prior to electric service being connected. I authorize the Cooperative along with the Cooperative's affiliates and/or service providers to obtain a report from any reputable credit reporting agency. My valid phone number will help both members and the Cooperative in reporting and restoring outages. Further, it may be necessary at times to contact members by phone electronically or otherwise regarding your account. In keeping with the provisions of the Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227, the Cooperative requires your express written consent prior to contacting you by telephone, facsimile, or text message for any non-emergency purpose using any automated telephone dialing system (ATDS) or artificial or prerecorded voice (each, an "Automated Method"). Your rights under the TCPA can be found at [www.carrollecc.com/tcpa-rights](http://www.carrollecc.com/tcpa-rights) or upon request. Should you choose to withhold or subsequently revoke your consent pursuant to the TCPA, or otherwise refuse to provide a valid phone number, it is with the understanding that we might not be able to reach you regarding important information about your electric service. By signing where indicated below, I authorize the Cooperative, along with the Cooperative's affiliates and/or service providers, to contact me using email and/or any Automated Method of the Cooperative's choosing, at the phone number and/or email address provided by me.

# SAMPLE

For Reference Purposes Only: CECC will provide a complete agreement for signature upon completion of design and cost estimates.

I HEREBY APPLY TO THE CARROLL ELECTRIC COOPERATIVE CORPORATION FOR MEMBERSHIP AND/OR ELECTRIC SERVICE IN ACCORDANCE WITH THE TERMS AND CONDITIONS APPEARING ABOVE.

Applicant Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Co-Applicant Signature: \_\_\_\_\_

Date: \_\_\_\_\_





**Carroll Electric  
Cooperative Corporation**

## **Underground Conduit Installation Specifications and Drawings** (Sections 2 and 7 including associated drawings)

The following specifications and drawings are typical requirements for construction of *CECC's* primary underground distribution system. In cases where an issue arises not covered by the included specifications and drawings, the *Developer* or his representatives shall contact *CECC* for clarification prior to installation.

### **2. INSTALLATION OF CONDUIT**

- 2.1 The minimum depth for installation of both primary and secondary conduit from final grade (including rock trench) is specified in tables below:

#### **Minimum Primary Conduit Installation Depths**

<b>Conduit Size</b> <i>Schedule 40</i>	<b>Bottom of Trench</b> <i>from final grade</i>	<b>Top of Conduit</b> <i>from final grade</i>	<b>Typical Use</b>
2"	38"	36"	1 Ø
3"	39"	36"	3 Ø
4"	40"	36"	600 A
6"	42"	36"	600 A

#### **Minimum Secondary Conduit Installation Depths**

<b>Conduit Size</b> <i>Schedule 40</i>	<b>Bottom of Trench</b> <i>from final grade</i>	<b>Top of Conduit</b> <i>from final grade</i>	<b>Typical Use</b>
1"	25"	24"	LT Repair
1.25"	26"	24"	Metering/Grounding
1.5"	26"	24"	Lighting
2"	26"	24"	100 AMP
3"	27"	24"	200 AMP
4"	28"	24"	>200 AMP
6"	30"	24"	As needed

On sloping ground, the depth of the trench shall be measured from the low side of the trench. Upon Engineering approval, where required depths cannot be obtained, a concrete encasement may be used. A typical encasement shall consist of 3500 psi concrete dyed red. The encasement shall be capped with an eight-inch (8") thick concrete layer reinforced with #3 or 3/8-inch rebar tied on one-foot squares, with a minimum three-inch (3") cover. The encasement shall extend a minimum of eight inches (8") on each side of the outer most conduits and be poured to depth.

- 2.2 All trenches shall follow straight lines between staked points to the greatest extent possible. Secondary and service trenches shall extend in a straight line between takeoff points wherever possible, while maintaining a minimum distance of five feet (5') of horizontal clearance from any building or permanent structure. The point of termination for secondary conduit shall be within direct line of sight of the source power supply.
- 2.3 Water, sewer, or gas lines shall not share the ditch with CECC primary or secondary distribution lines and shall maintain a minimum of five feet (5') of horizontal clearance. Perpendicular crossings shall maintain a minimum of 18 inches (18") of vertical clearance. Separation from deeper sewer lines shall be increased to allow access to the sewer line without disturbance of the power conduit ditch. Telephone, cable, and/or other communication lines may share CECC primary or secondary ditch and shall be separated as shown in CECC's Joint Trench Guide drawing.
- 2.4 The trenches shall be dug so that the bottom has a smooth grade. Large rocks, stones and gravel in excess of one inch (1") shall be removed from the bottom of the trench. Where this cannot be accomplished, a two-inch (2") bed of sand or clean soil shall be placed in the bottom of the trench. The minimum cover above the conduit must be maintained per section 2.1.
- 2.5 If rock or other difficult digging is encountered, the nature and extent of the difficulty shall be determined, and the designer shall determine whether rerouting, rock trenching or other changes are necessary.
- 2.6 Trench widths specified are a minimum and shall be increased as necessary to obtain the required depths in loose soils.
- 2.7 Construction shall be arranged so that trenches may be left open for the shortest practical time to avoid creating a hazard to the public and to minimize the likelihood of the trench collapsing due to other construction activity, rain, accumulation of water in the trench, etc. If this occurs, the trench shall be cleared to the specified depth before installing the conduit.
- 2.8 All conduit shall be stick gray electrical PVC schedule 40 unless otherwise approved. Continuous conduit shall only be allowed with engineering approval. When approved, continuous conduit shall be black (with red stripe) electrical HDPE schedule 40 unless otherwise specified. Continuous (HDPE) conduit shall not be allowed in any above ground installations. Steel sleeves may be required under street, highway, and railroad crossings.
- 2.9 Where more than one conduit is to be placed in a common trench, the spacing shown on the specification drawings shall be observed. Conduits shall be placed flat and parallel to one another. Rolling, crossing, or stacking of conduit within the ditch shall be pre-approved by the designer.
  - 2.9.1 Single-phase shall be installed in two-inch (2") conduit.

2.9.2 Three-phase shall be installed in a minimum three-inch (3") conduit.

2.9.3 600 Amp underground circuits shall be installed in a minimum four-inch (4") conduit with additional four-inch (4") spare conduits for each conductor along with an additional two-inch (2") conduit installed for CECC communications.

2.9.4 Appropriately sized spare conduits shall be installed alongside all conduit installed beneath hard surfaces such as, but not limited to roadways, parking lots, and driveways.

2.10 All conduit/cable runs shall not exceed the maximum length shown below.

#### Maximum Primary Conductor Run Length

Conduit Size <i>Schedule 40</i>	Cable Size <i>25 KV</i>	*Length of Run <i>Feet</i>
2"	1/0	600
2"	4/0	600
3"	1/0	600
3"	4/0	900
3"	500	500
4"	4/0	900
4"	500	500
4"	1000	300

\*Note: Maximum conduit lengths are limited by sidewall pressure for three (3) sweeps. Contact CECC Engineering for other variations.

2.11 Conduit runs for secondary are generally limited to 125' for voltage considerations and constructability. Longer runs shall be approved by Engineering Manager after consideration of load and constructability.

2.12 All conduit runs shall contain no more than 270 degrees of total angle. Minimum requirements for primary and secondary sweeps are specified in the table below.

#### Minimum Primary Conduit Sweep Size (Long Sweeps)

Size <i>Schedule 40</i>	Radius <i>Centerline</i>	Length <i>Centerline</i>
2"	36.00"	60.000"
3"	36.00"	62.125"
4"	36.00"	63.125"
6"	36.00"	65.250"

**Minimum Secondary Conduit Sweep Size**  
(Short Sweeps)

<b>Size</b> <i>Schedule 40</i>	<b>Radius</b> <i>Centerline</i>	<b>Length</b> <i>Centerline</i>
1"	05.75"	09.000"
1.5"	08.25"	13.000"
2"	09.50"	15.000"
3"	13.00"	25.125"
4"	16.00"	30.250"

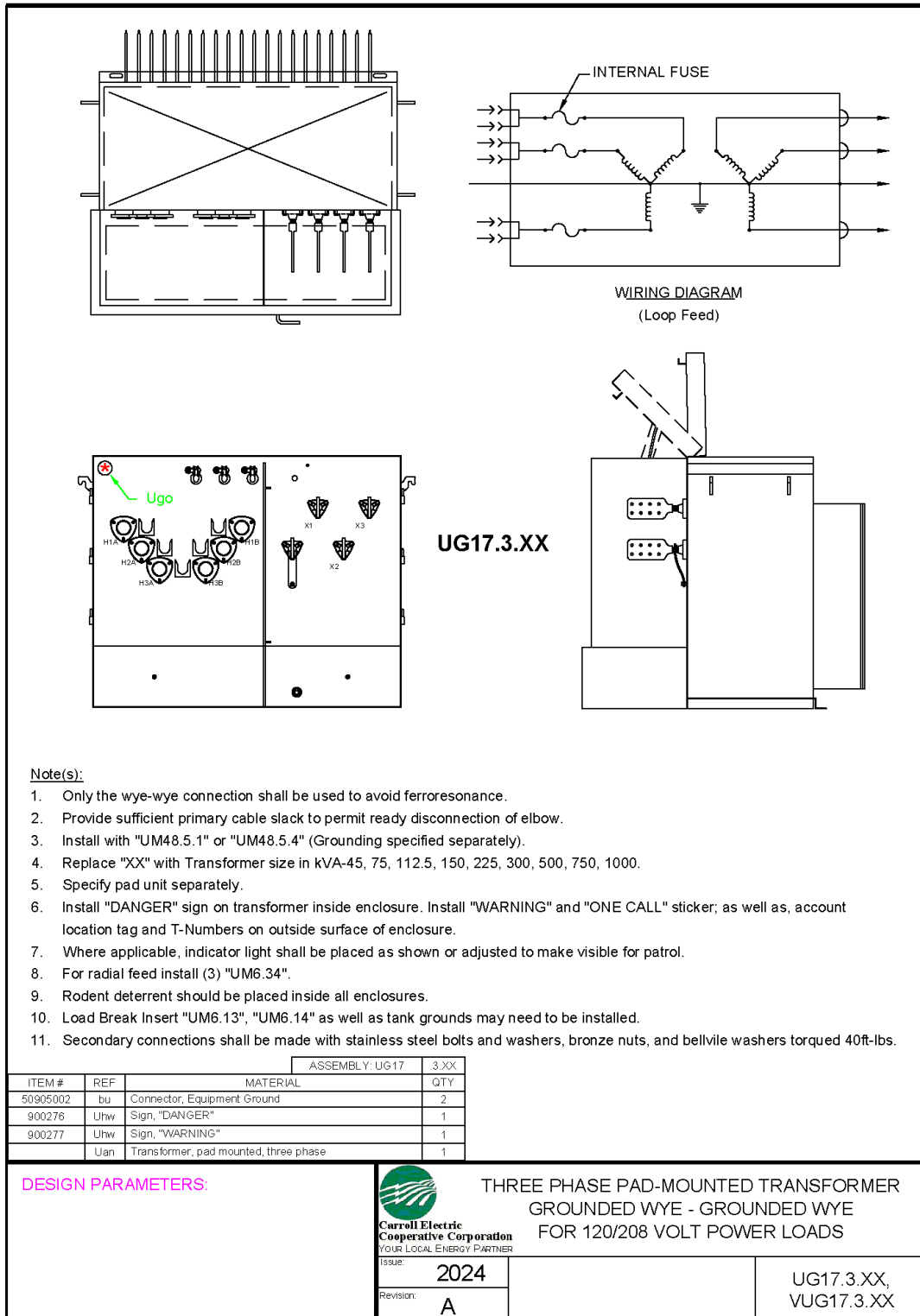
- 2.13 Sweeps shall be oriented to allow appropriate orientation of underground equipment and/or enclosures. Proper example: When equipment is installed on front of lot it shall open toward the road.
- 2.14 All exposed ends of conduit shall be plugged or capped during construction to prevent the entrance of foreign matter and moisture into the conduit. At the time of installation, each end of the conduit shall be marked with marking tape to distinguish individual conduits. Burrs or sharp projections that might injure the cable shall be removed.
- 2.15 Proper fittings shall be used on all transitions. All joints shall be glued together with the proper adhesive. When using continuous (HDPE) conduit, appropriate rigid sweeps shall be used for risers and/or entering equipment and/or enclosures.
- 2.16 A pull string consisting of locatable 2,500 lb mule tape or equivalent shall be installed inside each conduit at time of installation with a minimum of four feet (4') excess coiled and secured on each end.
- 2.17 The first six inches (6") of trench backfill shall be free from large rock or other material which might damage the conduit. This soil layer shall be carefully compacted so that the conduit shall not be damaged. If native backfill is unacceptable, imported backfill shall be required (5/8-inch crushed rock, fines, or sand). Backfilling shall be completed in such a manner that voids shall be minimized. Excess soil shall be piled on top and should be well tamped.
- 2.18 Road crossing backfill and compaction, or boring requirements shall be as required by the governing road district.
- 2.19 Electrical Warning Tape (Red) shall be installed 12 inches (12") above primary electrical conduits.
- 2.20 All rock and debris shall be removed from the site, and any damage to the premises repaired immediately. Pieces of scrap cable or other material remaining after installation shall not be buried in the trench as a means of disposal.

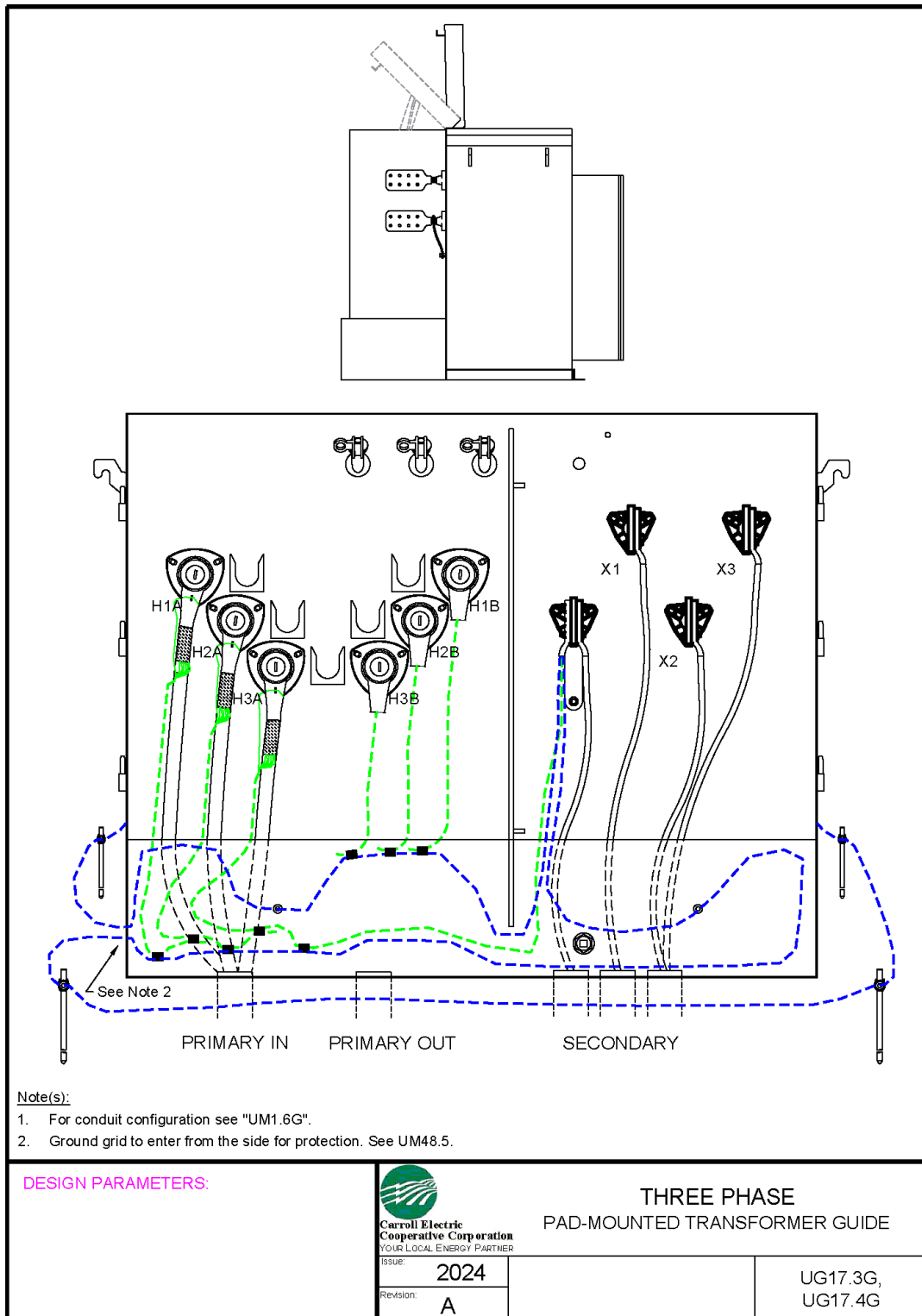


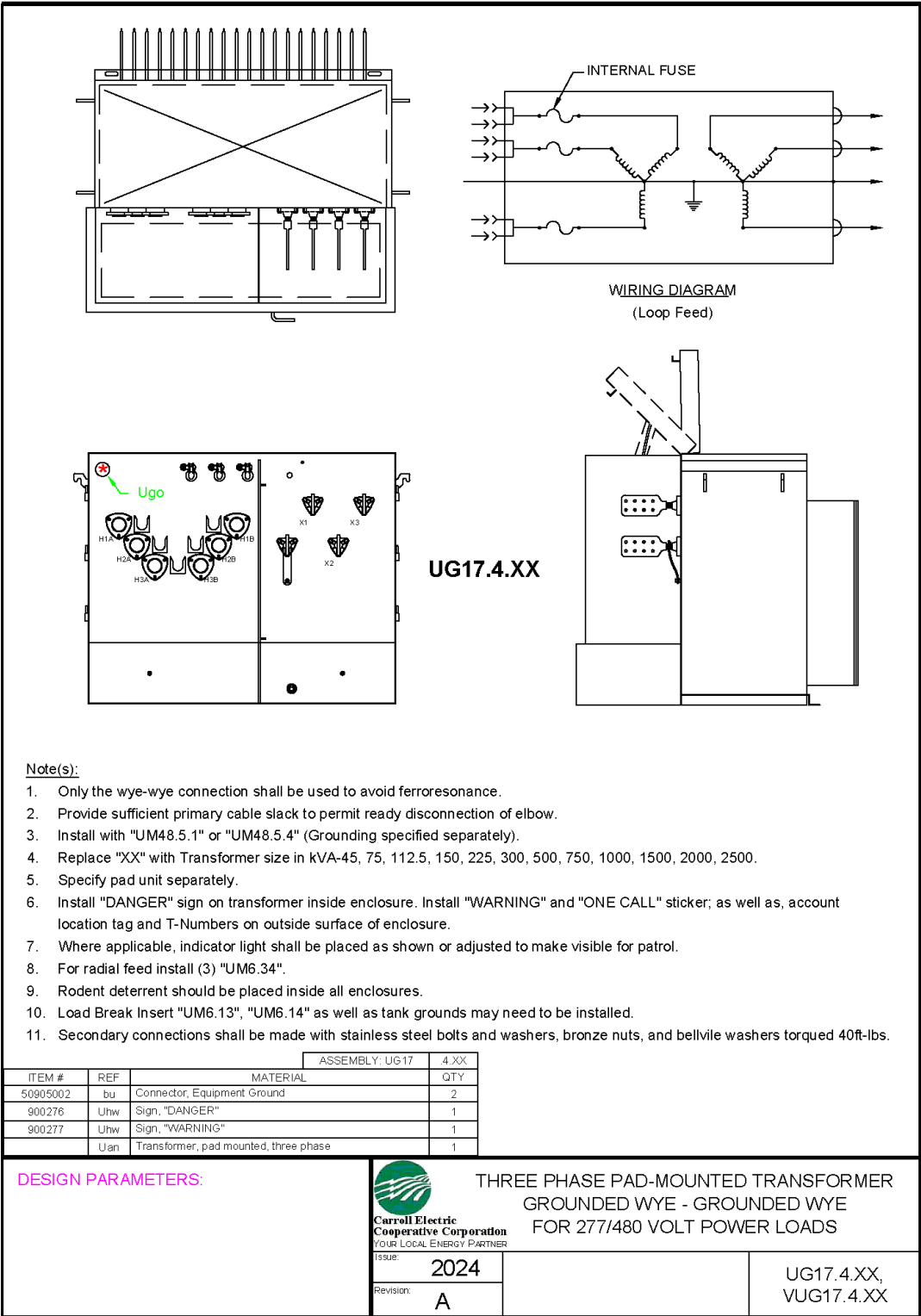
## 7. EQUIPMENT AND ENCLOSURES

- 7.1 Equipment shall be handled carefully to avoid damage. Only qualified and experienced personnel shall be allowed to make connections and cable terminations.
- 7.2 Vaults shall be required in areas where final grade is subject to change, to accommodate grade differentials, there is the possibility of undermining equipment stability, or to provide for excess secondary runs as determined by CECC.
- 7.3 Transformers shall be installed on undisturbed earth adjacent to but not over the trench and shall be positioned in accordance with the staking sheets and the plans and specifications. The site shall be cleared of all debris and excavated to final grade. Gravel shall be added to the site and thoroughly compacted. The pad or vault shall be installed level at the specified elevation.
- 7.4 Equipment location and orientation shall be positioned to allow for at least 15 feet (15') of working access and 5 feet (5') of non-working access. Equipment shall be a minimum of 15 feet (15') away from buildings. Additionally, meters placed on structures shall be positioned to allow for 7 feet (7') of unobstructed working access.
- 7.5 Bollards shall be required when equipment is located closer than 5 feet (5') from parking lots, driveways, or other areas subject to vehicular traffic or damage.
- 7.6 Equipment shall be installed in such a manner to allow unobstructed access. Obstacles such as fire hydrants, gas meters, phone pedestals, fences, landscaping, etc., shall not impede ability to access and/or maintain equipment.
- 7.7 Lifting lugs shall be removed once equipment is in place and all "warning" and "danger" signs shall be installed.
- 7.8 Enclosures shall be installed with side walls plumb. The surrounding earth shall be disturbed as little as possible when installing vaults and other below-grade enclosures. When enclosures are of fiberglass, plastic, or other semi-flexible material, backfilling shall be done with covers in place and with careful tamping so as to avoid distortion of the enclosure. When installation is complete, the cover of the enclosure shall not be lower than, and not more than two inches (2") higher than the final grade, measured on the high side of grade. Soil in the immediate vicinity shall be tamped and sloped away from the enclosure. Excess soil shall be removed from the site or spread evenly over the surface of the ground.
- 7.9 Secondary conduits within a pad mounted transformer shall be limited to three (3) four-inch (4") conduits for single phase units and eight (8) four-inch (4") conduits inside the secondary compartment of a three-phase pad mounted transformer. Exceptions may be considered with the use of a vault.

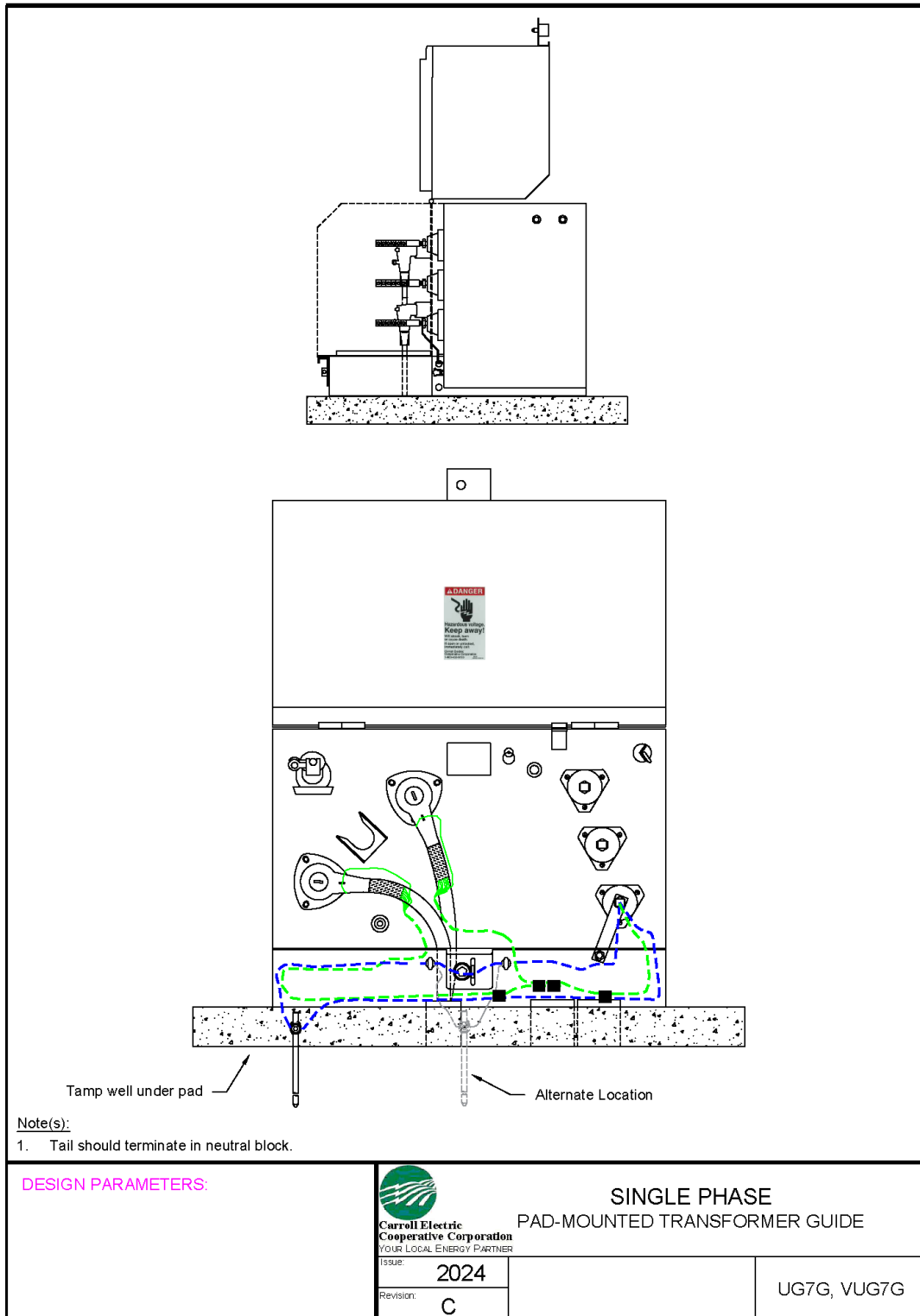
- 7.10 Conduit stub-ups into equipment shall be installed per drawing specifications to ensure proper orientation. Conduit stub-outs shall be installed for future installations where practical to avoid digging under the pad or vault later.
- 7.11 Underground sectionalizing cabinets and pad mounted transformers at dead-ends or with opening points shall have an elbow surge arrester installed (per phase) at each primary cable termination point.

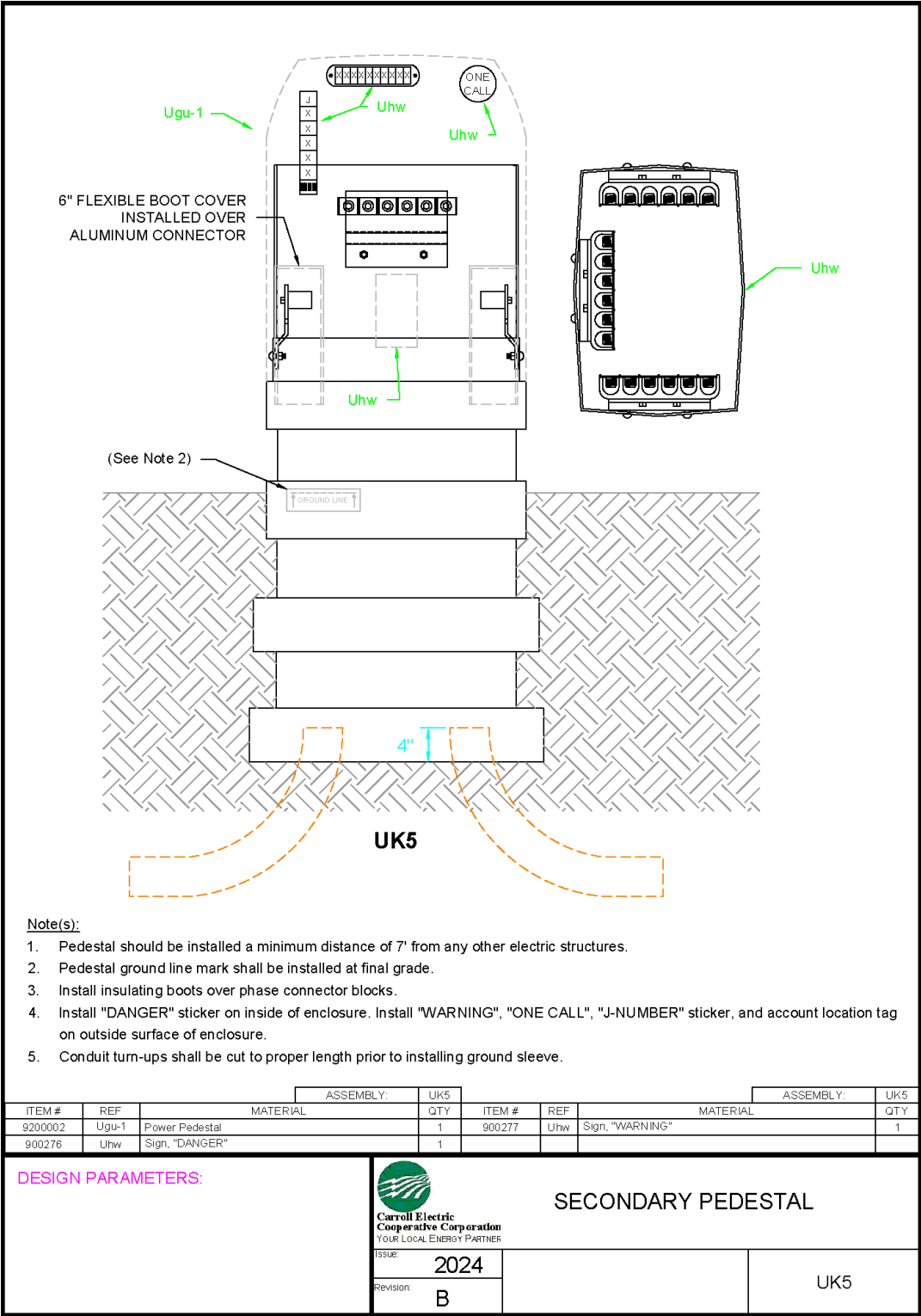
















DOUBLE LOAD

UK5.200.MBM.D

LOAD RIGHT

UK5.200.MBM.R

LOAD LEFT

UK5.200.MBM.L

UQ2.1.200.MBM

UQ2.1.400.MBM

**Note(s):**

- See master material list for approved material. Any material substitutions must be approved by CECC prior to assembly.
- On the UQ2.1.400.MBM the distance between the poles can be adjusted to accommodate terrain or other buried utilities.
- Designate UK5.200.MBM.D, R, or L such that the door faces the source power supply. Where access is limited due to spacing between pedestal and the source power supply, designate UK5.200.MBM.D, R, or L such that the door opens away from source supply (i.e. subdivisions).
- Install with UM6.6.

		ASSEMBLY: UK5/UQ2.1	200.MBM.D	200.MBM.R	200.MBM.L	200.MBM	400.MBM
ITEM #	REF	MATERIAL	QTY	QTY	QTY	QTY	QTY
9200143		MBM, Double load, 200A, Assembled	1				
9200145		MBM, Load Right, 200A, Assembled		1			
9200144		MBM, Load Left, 200A, Assembled			1		
9200141		MBM, Single Pole, 200A, Assembled				1	
9200142		MBM, Double Pole, 400A, Assembled					1

DESIGN PARAMETERS:

**Carroll Electric Cooperative Corporation**  
YOUR LOCAL ENERGY PARTNER

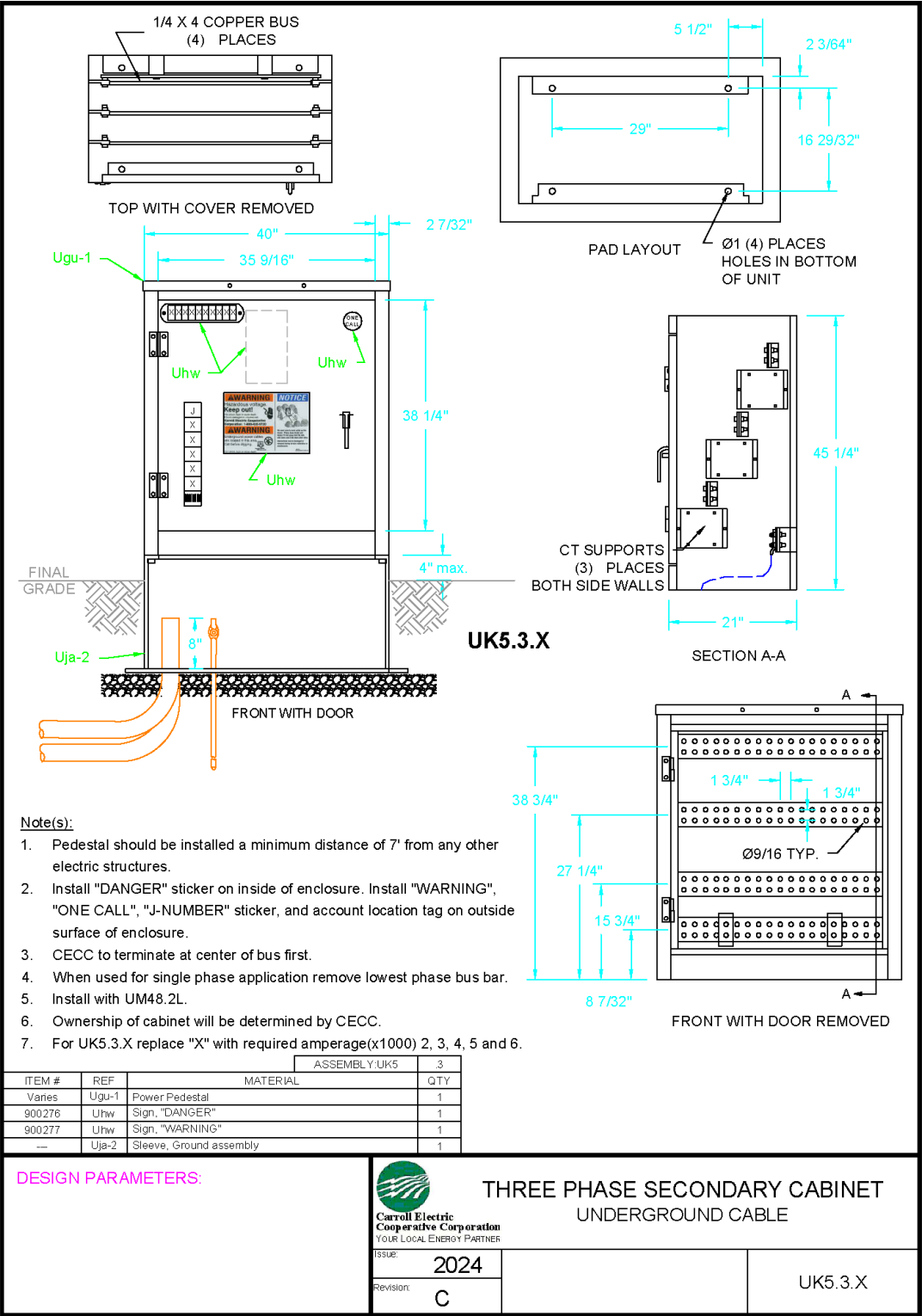
CECC SUPPLIED AND INSTALLED  
METER BASE COMBO

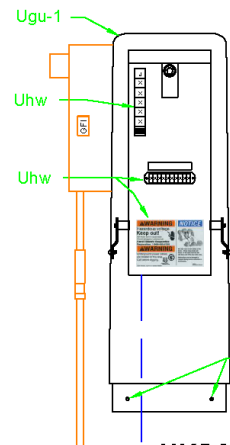
ISSUE: 2024

Revision: A

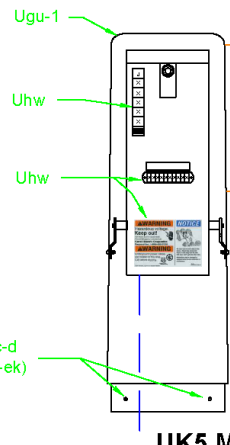
UK5.200.MBM.X,  
UQ2.1.200.MBM,  
UQ2.1.400.MBM

Underground Conduit Installation Specifications and Drawings - Page | 14

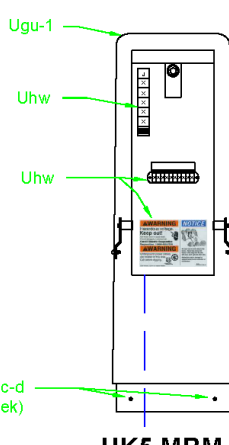




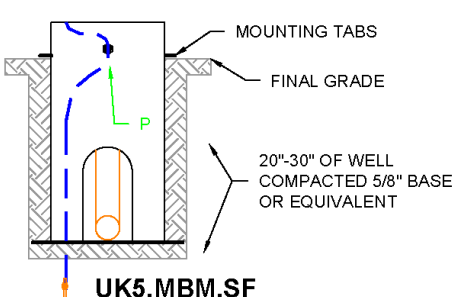
**UK5.MBM.L  
(SINGLE)**



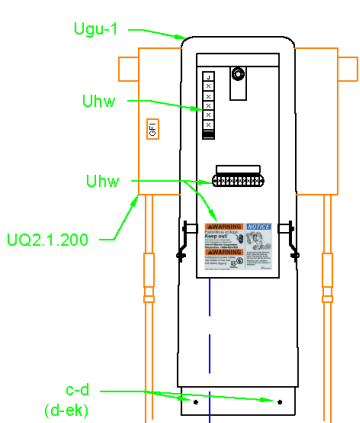
**UK5.MBM.R  
(SINGLE)**



**UK5.MBM.1**



**UK5.MBM.SF**




**UK5.MBM.D  
(DOUBLE)**

**Note(s):**

- Designate UK5.MBM.L, .R, .1, or .D such that the door faces the source power supply. Where access is limited due to spacing between pedestal and the source power supply, designate UK5.MBM.L, .R, .1, or .D such that the door opens away from source supply (i.e. subdivisions).
- Cap all conduits to prevent entry of moisture or other foreign materials.
- Conduit sweeps shall be stabilized by compacted fill or 5/8" base.
- Sub-grade soil shall be well compacted.
- 6" minimum compacted 5/8" base to be placed under junction can sleeve.
- Lightly compact backfill material around ground sleeve, heave remainder.
- Extensions shall be added to sweeps to attain specified conduit height.
- Install with UM6.6.

		ASSEMBLY: UK5 MBM.					
		L	R	.1	D	SF	
ITEM #	REF	QTY	QTY	QTY	QTY	QTY	
900017	c	4	4	4	4		
53000207	p					1	
16900072	cj	6	6	6	6		
9200140	Ugu-1	1	1	1	1		
900166	ek	4	4	4	4		
900276	Uhw	1	1	1	1		
900277	Uhw	1	1	1	1		
900357	d	8	8	8	8		
900358		4	4	4	4		
9200055						1	

**DESIGN PARAMETERS:**



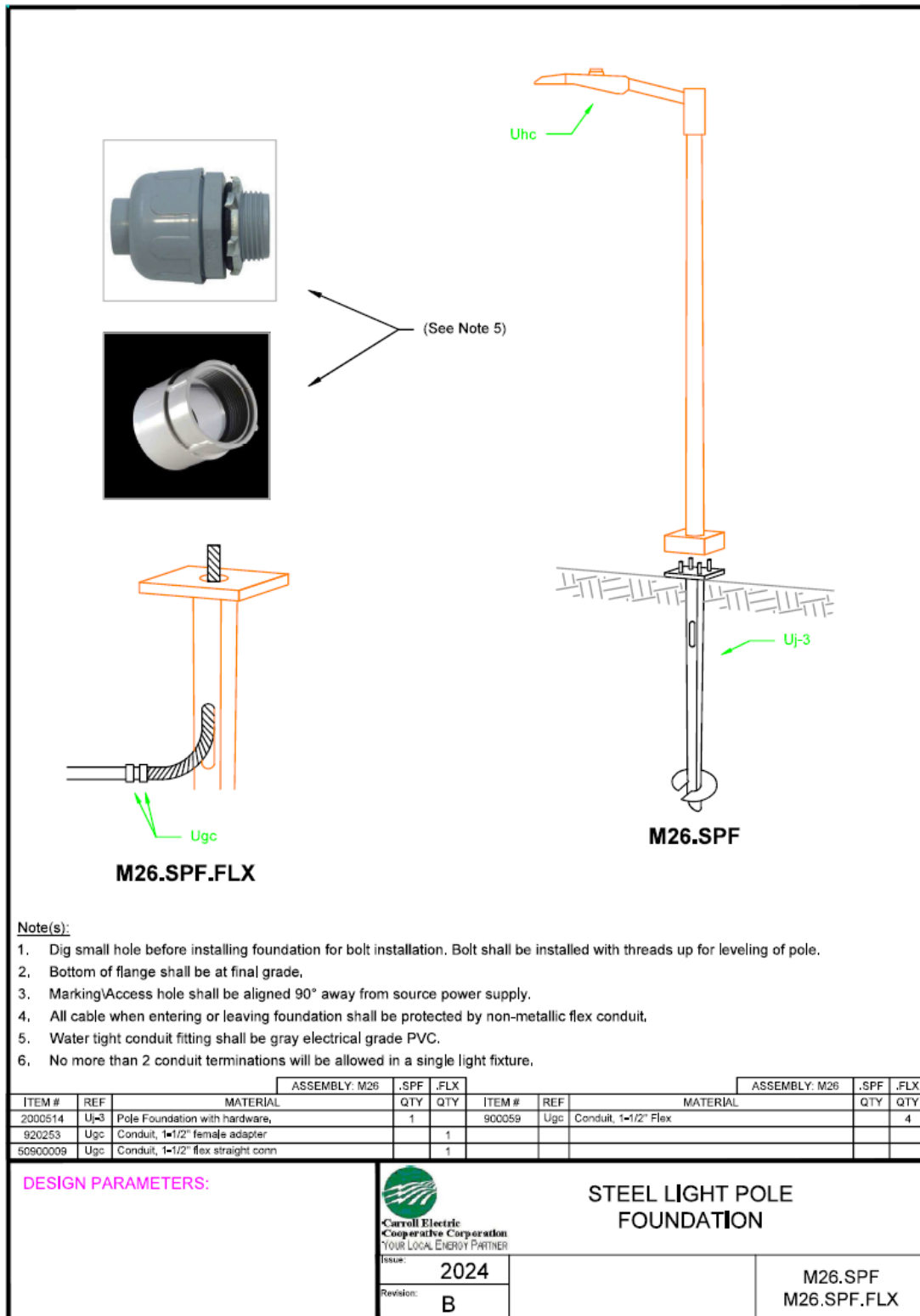
**METER BASE MOUNT/PEDESTAL**

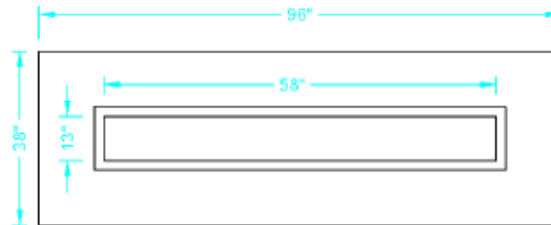
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UK5.MBM.L/R/D,  
UK5.MBM.1,  
UK5.MBM.SF

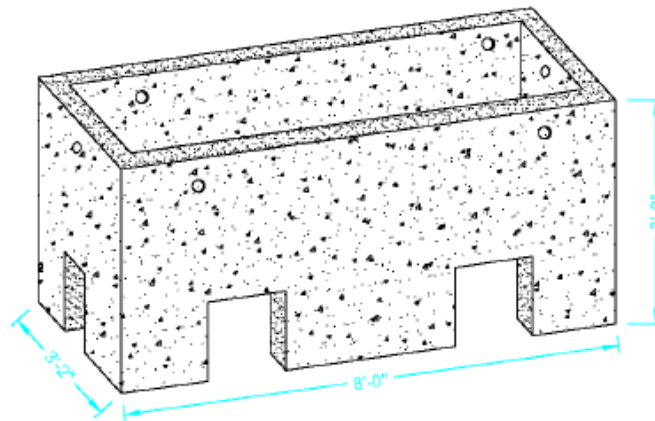
ISSUE: **2024**

REVISION: **A**





**UM1.38CL**  
Approx. 1,050lbs



**UM1.38C**  
Approx. 2,525lbs

**Note(s):**

1. Vault shall be placed on well compacted soil with at least 6" of compacted 5/8" base.
2. Backfill shall consist of clean soil, carefully compacted with no solid material larger than 3".
3. Top of vault shall be placed flush with final grade prior to adding pad.
4. Grounding installation shall be based on equipment mounted on vault.
5. Extension shall be added to sweeps to obtain specified conduit heights.
6. Cutouts in vault shall not be used for primary conduit.
7. All conduit openings weather 45° or 90° shall be visible and accessible from the opening of the equipment that will be mounted on the vault lid.

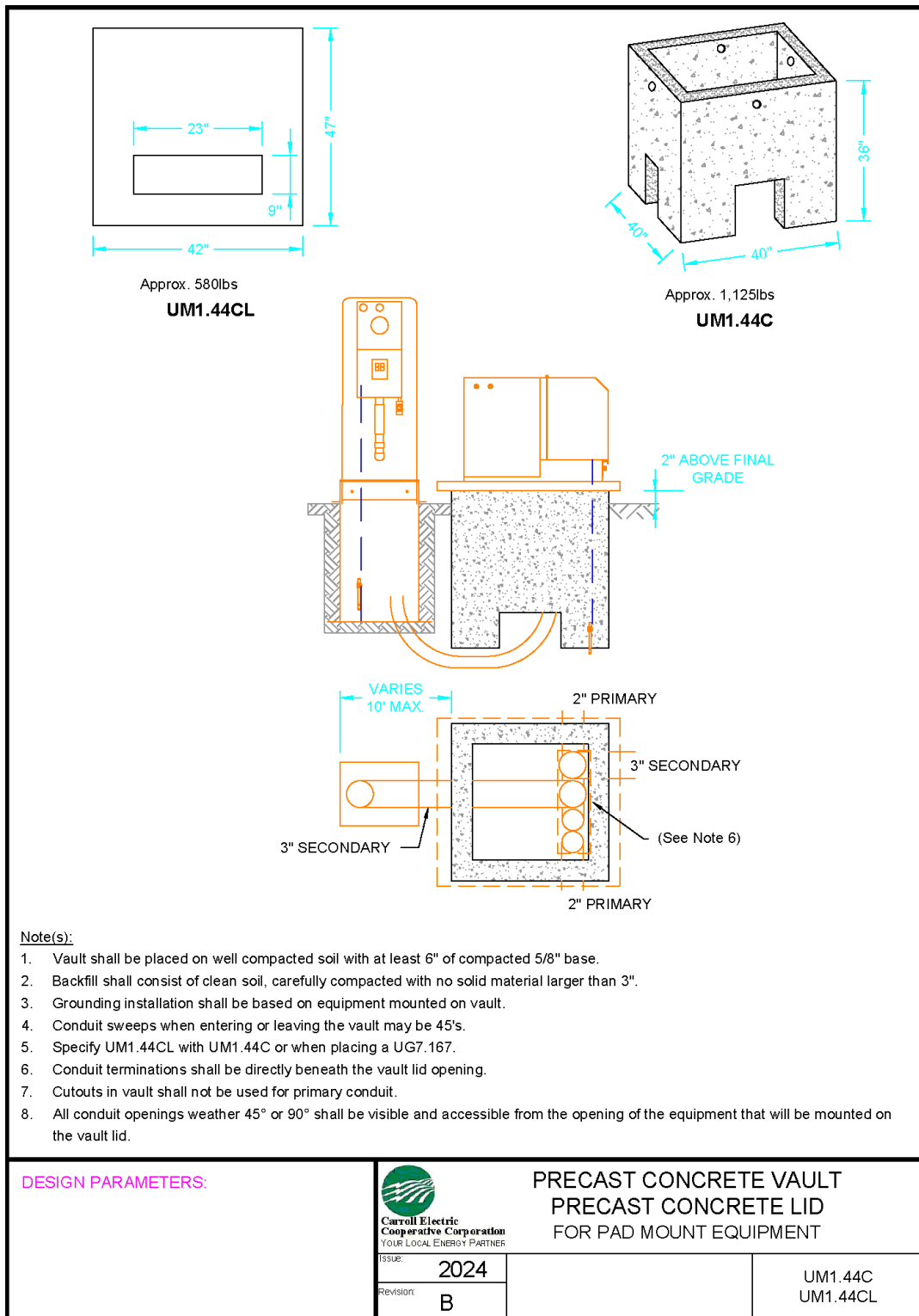
**DESIGN PARAMETERS:**

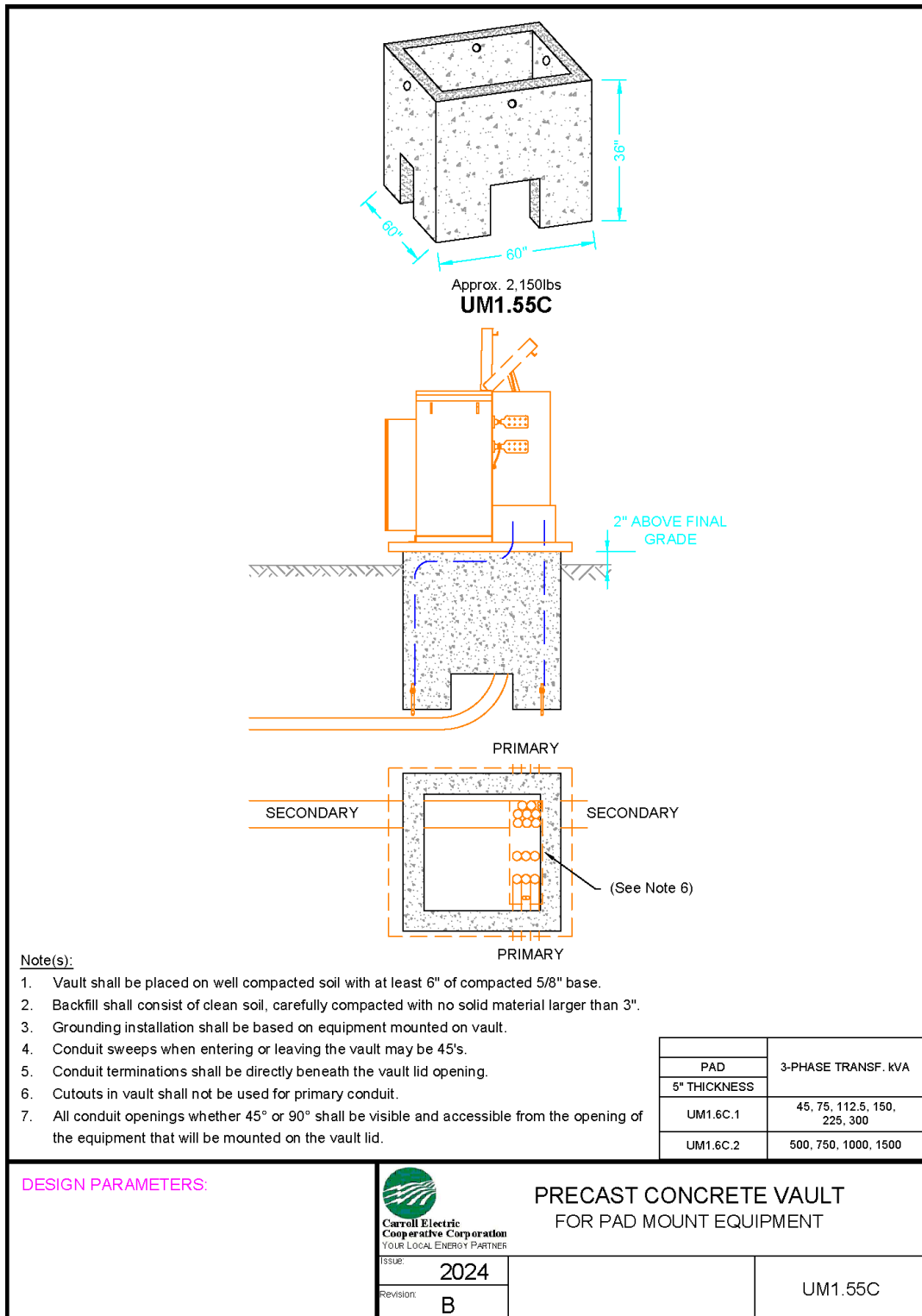


**PRECAST CONCRETE VAULT  
FOR PAD MOUNT EQUIPMENT**

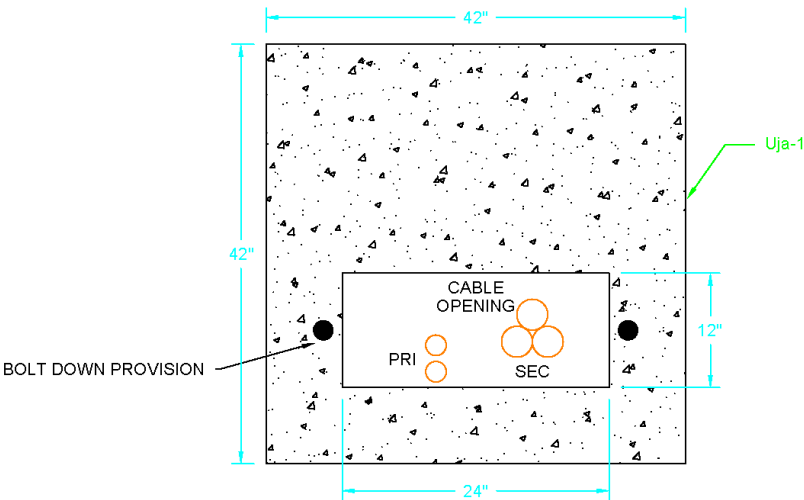
ISSUE: **2024**  
REVISION: **A**

UM1.38C,  
UM1.38CL









UM1.5C

Note(s):

- 1. Pad assemblies include site preparation, bedding and drainage.
- 2. Equipment shall be secured to pad in accordance with manufacturers instructions.
- 3. Conduit shall front the cable opening area. See "UM1.5G" for conduit detail.
- 4. No more than three secondary conduits shall be allowed in a single phase enclosure without the use of a vault.
- 5. See written specifications for conduit size.
- 6. Where more than 3 secondary conduits (excluding street lights) are needed, install "UK5".
- 7. Designate "UM1.5C" for concrete, "UM1.5NC" for non-concrete, and a UM1.5CR for a resale ticket item.
- 8. Specify UM1.44CL when placing a UG7.167, or when used with any vault.

		ASSEMBLY: UM1		5C
ITEM #	REF	MATERIAL		QTY
900004242	Uja-1	Pad, Transformer 42" X 46"		1

DESIGN PARAMETERS:  
  
NOT FOR USE ON VAULT.

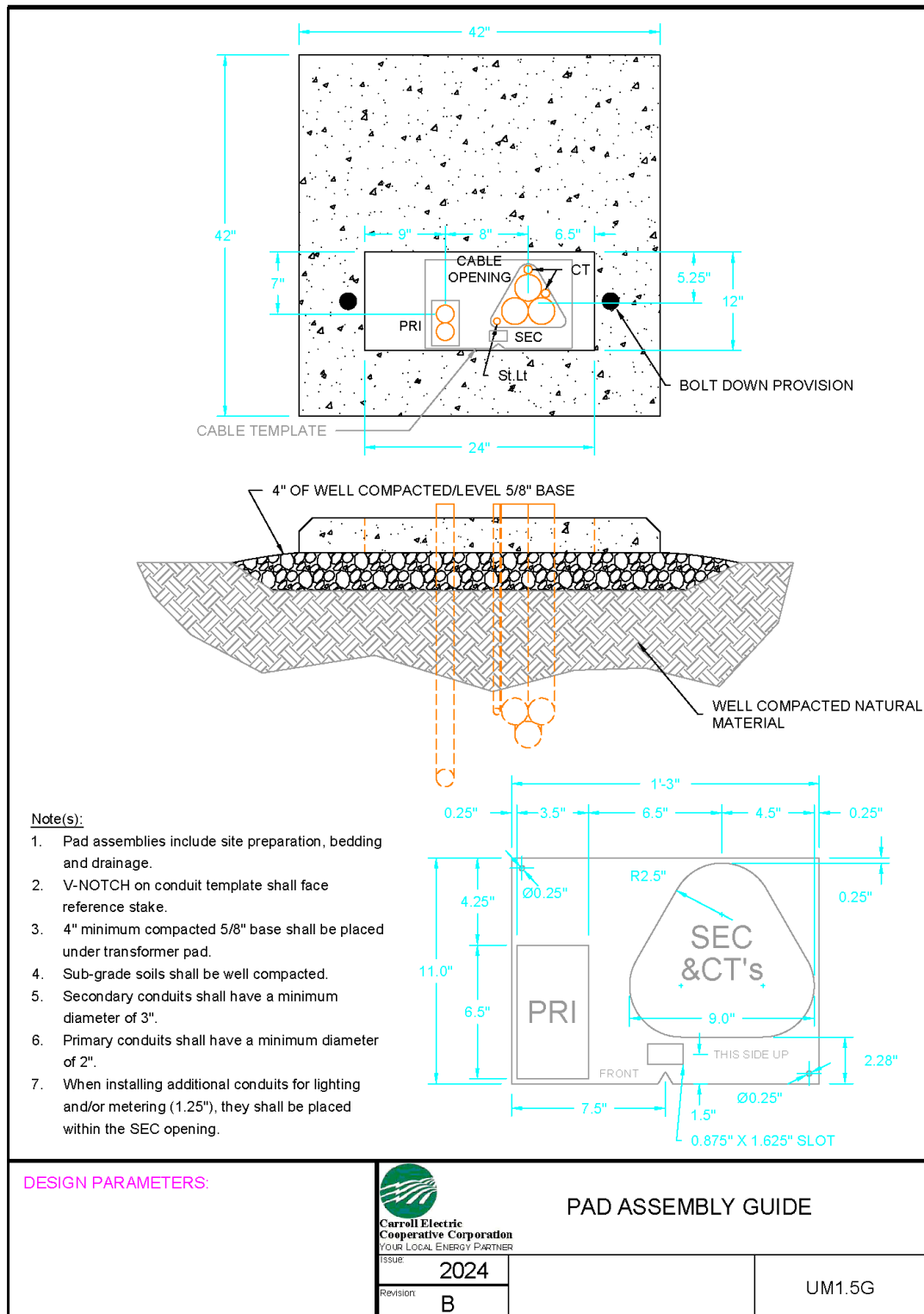


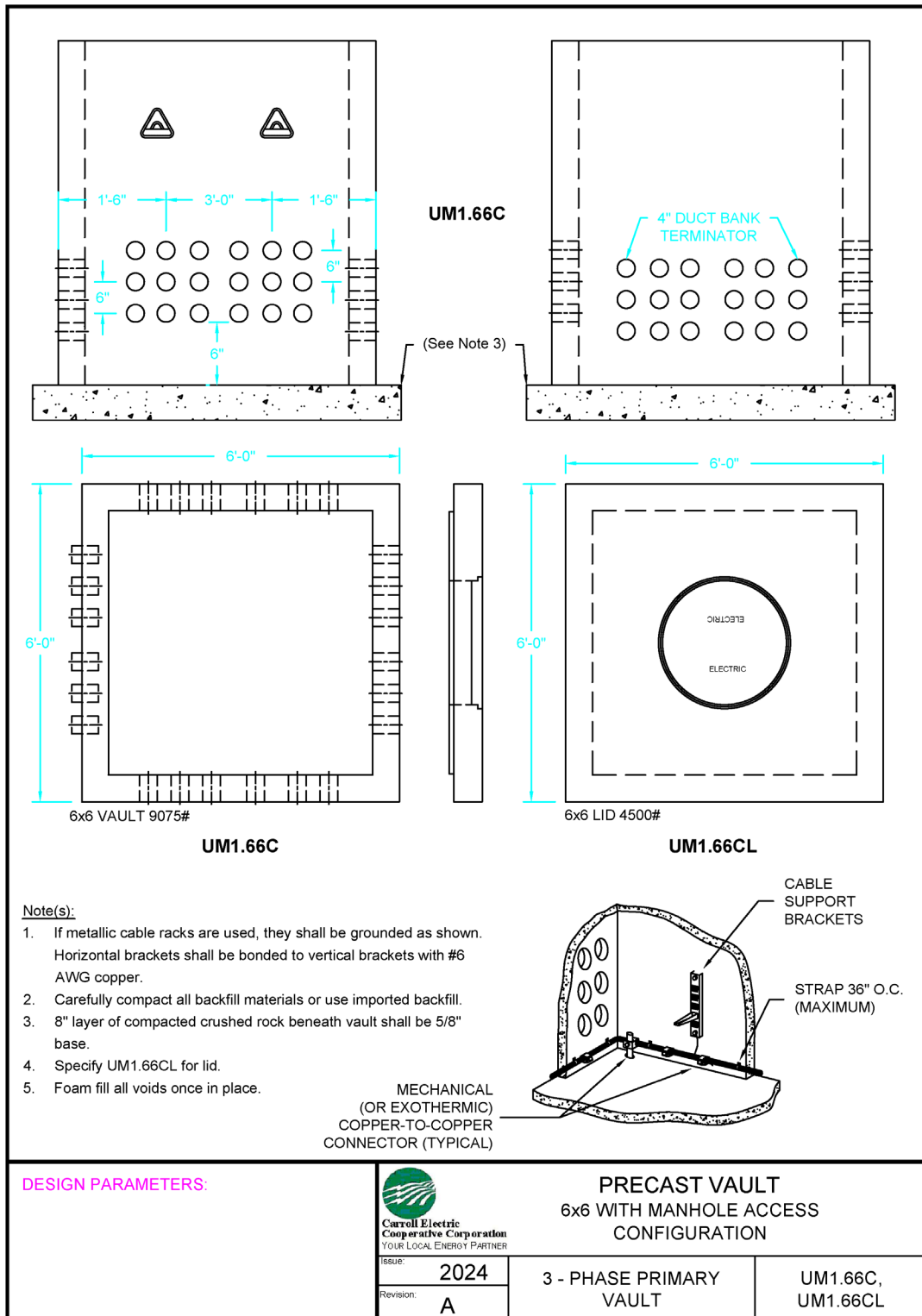
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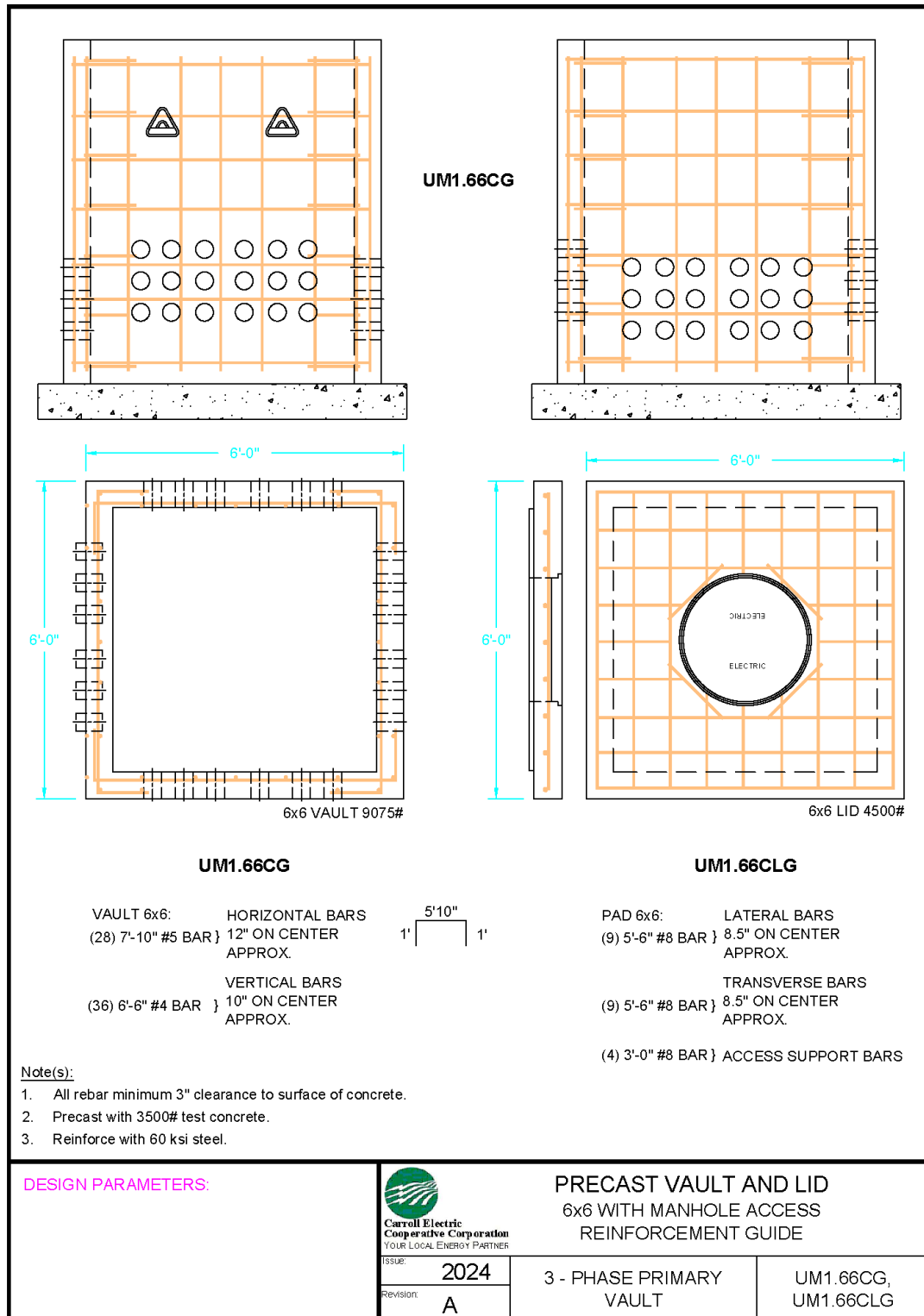
ISSUE:	2024
Revision:	A

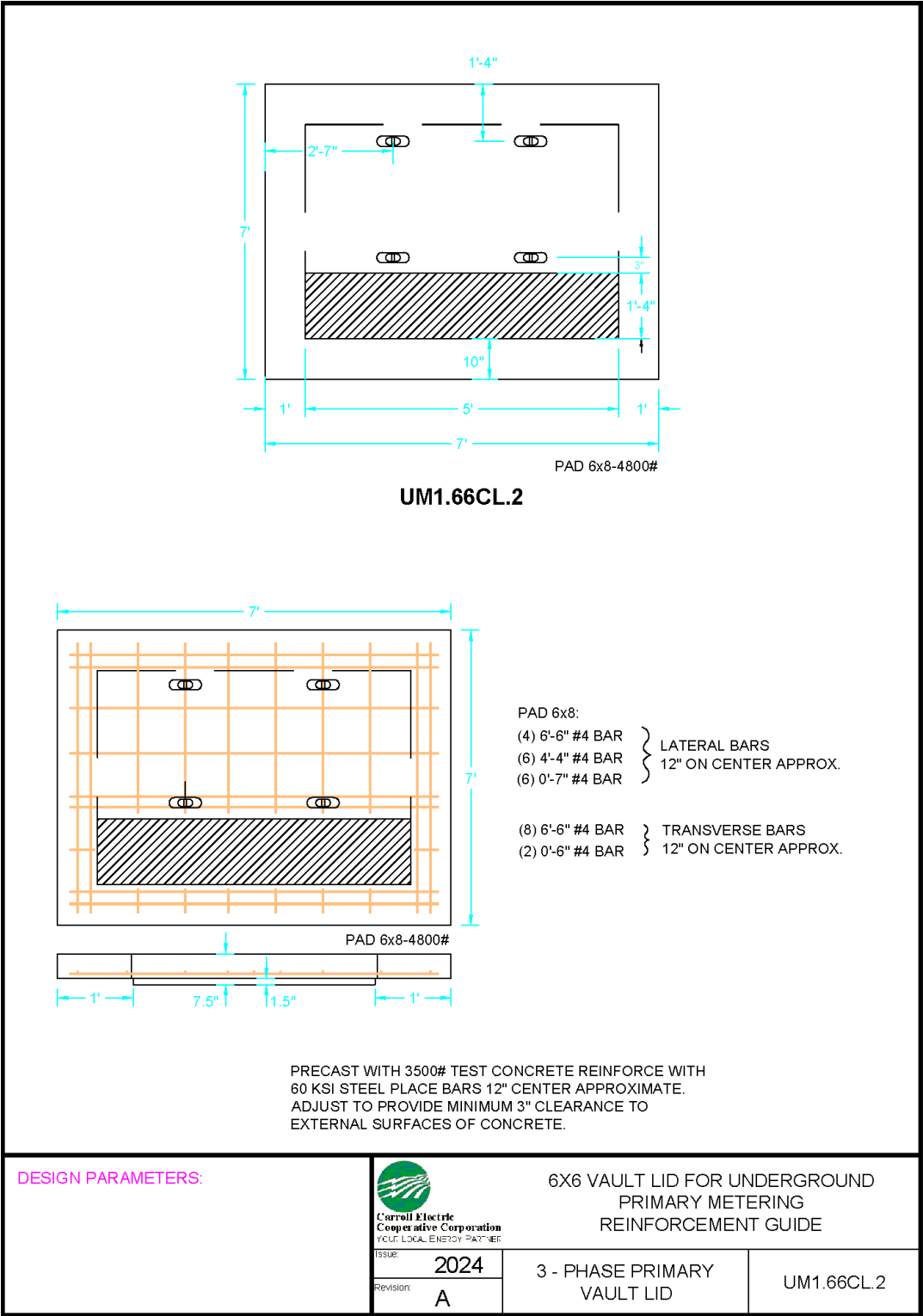
PAD ASSEMBLIES

UM1.5C,  
UM1.5NC



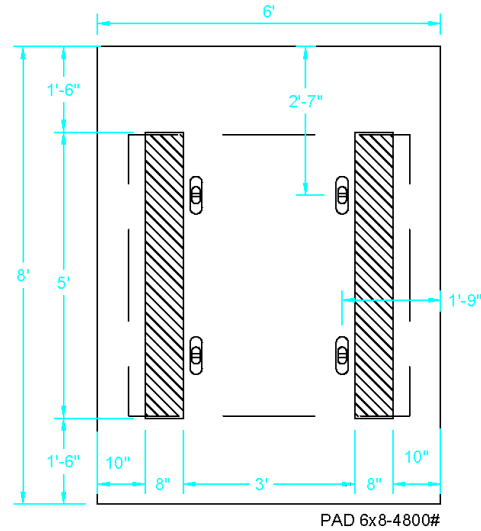




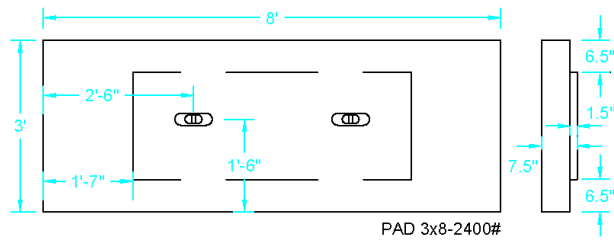








UM1.69CL.1



UM1.69CL.2

**Note(s):**

1. Foam fill all voids once in place.
2. Proper lifting eyes and lifting methods shall be used when lifting/moving.
3. UM1.69CL.1 and UM1.69CL.2 are for use with a PMH unit.
4. When equipment is not installed at the time of construction, a UM1.69DP (Diamond Plate) shall be used to cover holes. Note, this must be retired when installing equipment.

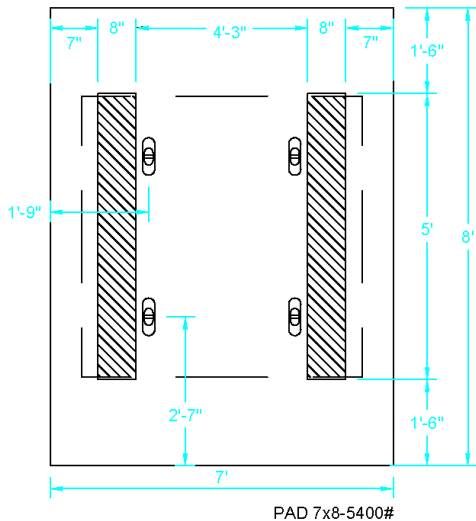
**DESIGN PARAMETERS:**
**PRECAST LID  
FOR 6X9 VAULT  
FOR PMH UNIT**

ISSUE: **2024**  
Revision: **C**

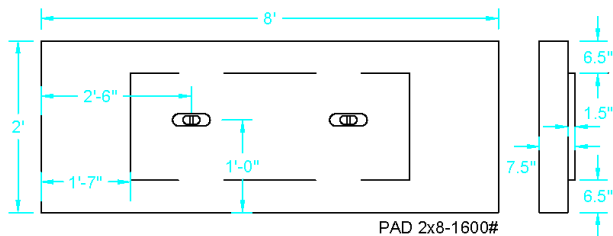
3 - PHASE PRIMARY  
VAULT LID

UM1.69CL.1,  
UM1.69CL.2  
UM1.69DP





UM1.69CL.3




UM1.69CL.4

Note(s):

1. Foam fill all voids once in place.
2. Proper lifting eyes and lifting methods shall be used when lifting/moving.
3. UM1.69CL.3 and UM1.69CL.4 are for use with a PME unit.
4. When equipment is not installed at the time of construction, a UM1.69DP (Diamond Plate) shall be used to cover holes. Note, this must be retired when installing equipment.

DESIGN PARAMETERS:

  
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ISSUE: 2024  
Revision: B

PRECAST LID  
FOR 6X9 VAULT  
FOR PME UNIT

3 - PHASE PRIMARY  
VAULT LID

UM1.69CL.3,  
UM1.69CL.4  
UM1.69DP


PAD	3-PHASE TRANSF. kVA	PAD DIMENSIONS IN INCHES						CONDUIT DIMENSIONS IN INCHES				REINFORCING BARS					
		"A"	"B"	"C"	"D"	"E"	"F"	PRI.	SEC.	CT.	GRD.	MK1	MK2	MK3	MK4	MK5	MK6
#1	45, 75, 112.5, 150, 225, 300	70	70	44	11	7.5	5	4 MAX	4 MAX	1.25 MIN	1 MIN	SEE NOTE 9					
#2	500, 750, 1000, 1500	90	80	52	18	8	8	4 MAX	4 MAX	1.25 MIN	1 MIN	SEE NOTE 9					
#3	2000, 2500	120	120	68	26	11	8	4 MAX	4 MAX	1.25 MIN	1 MIN	25 #4 114"	12 #4 77"	12 #4 4.5"	6 #4 20"	2 #4 34"	2 #4 24"

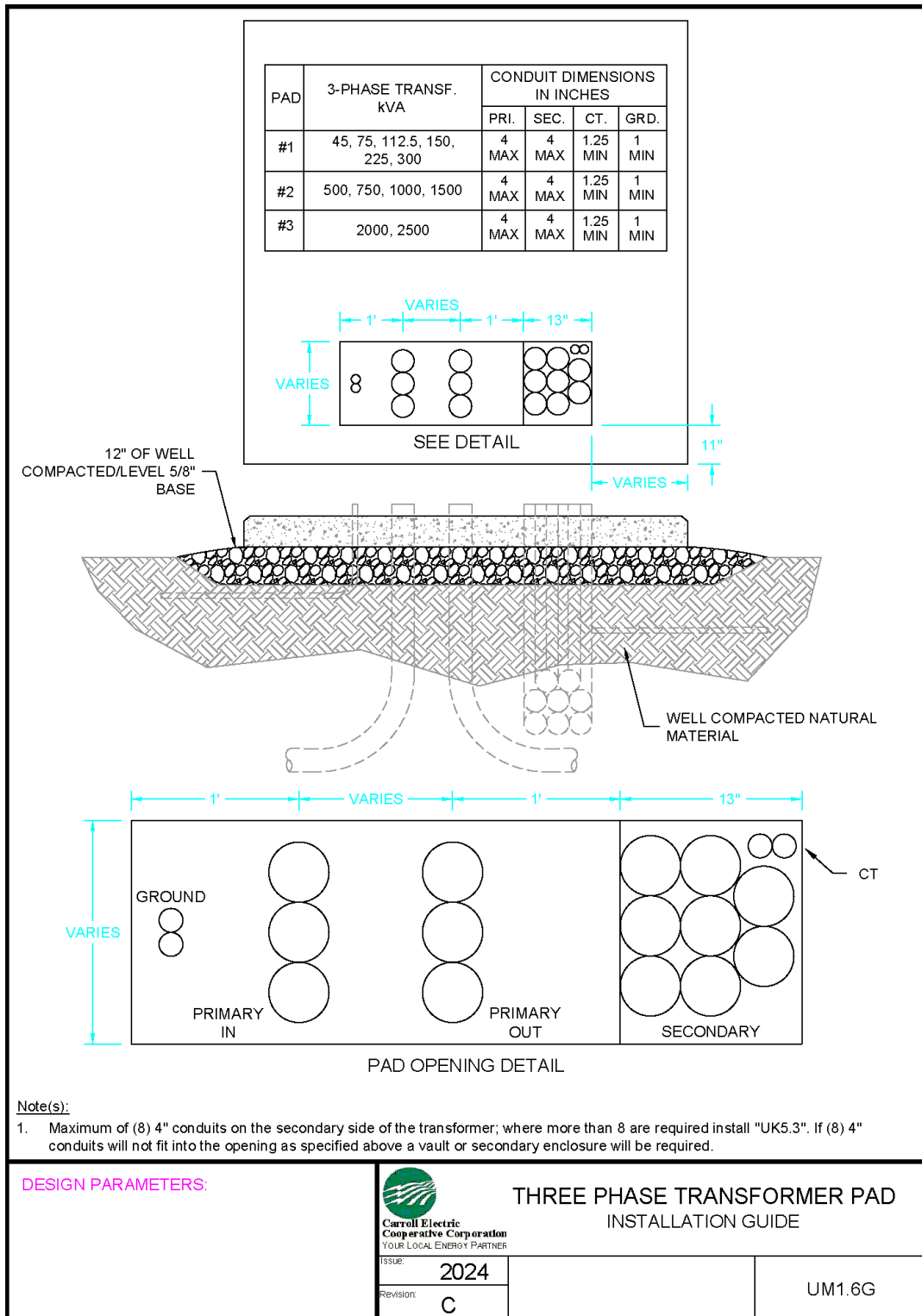
  

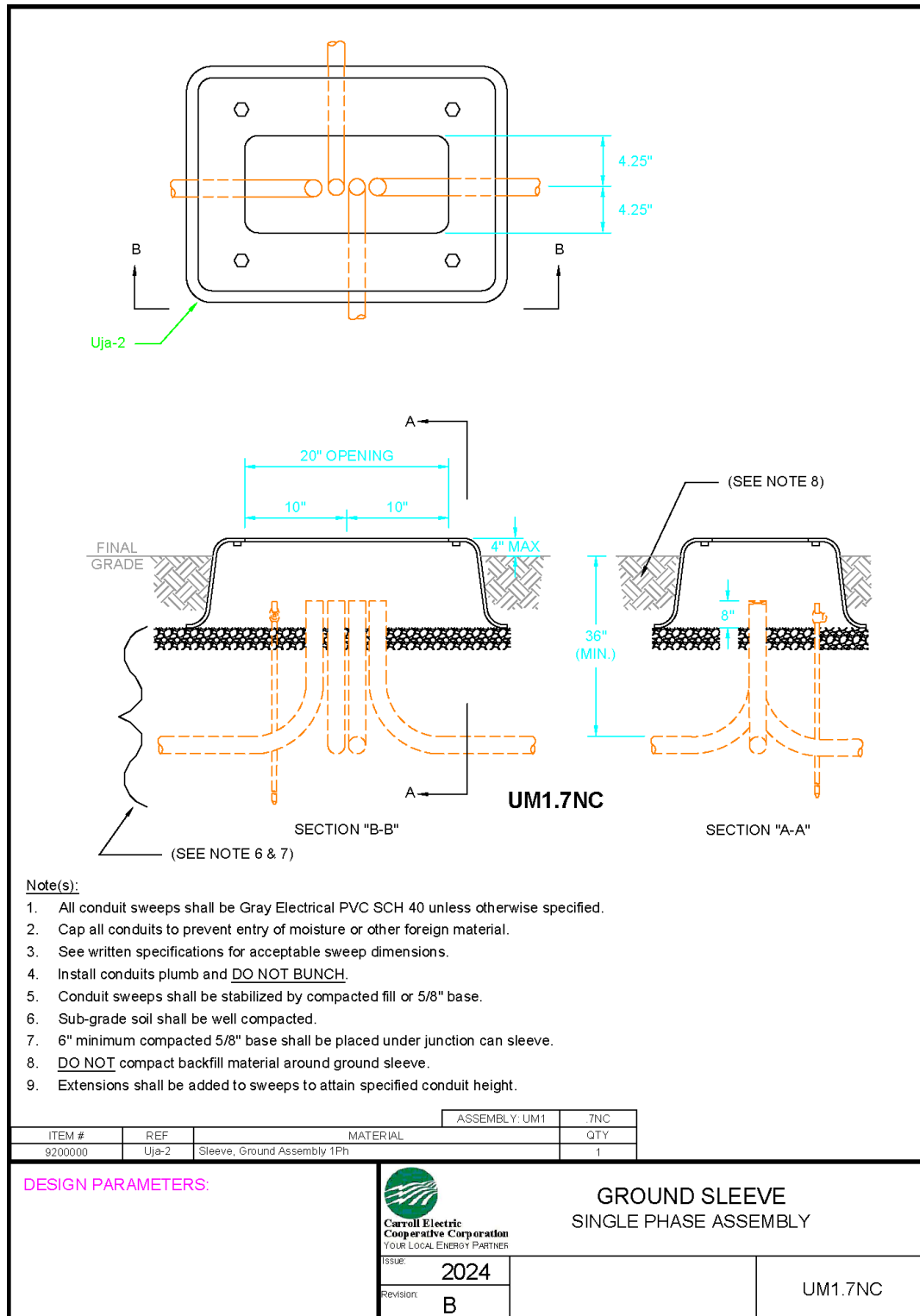
**UM1.6C.X**

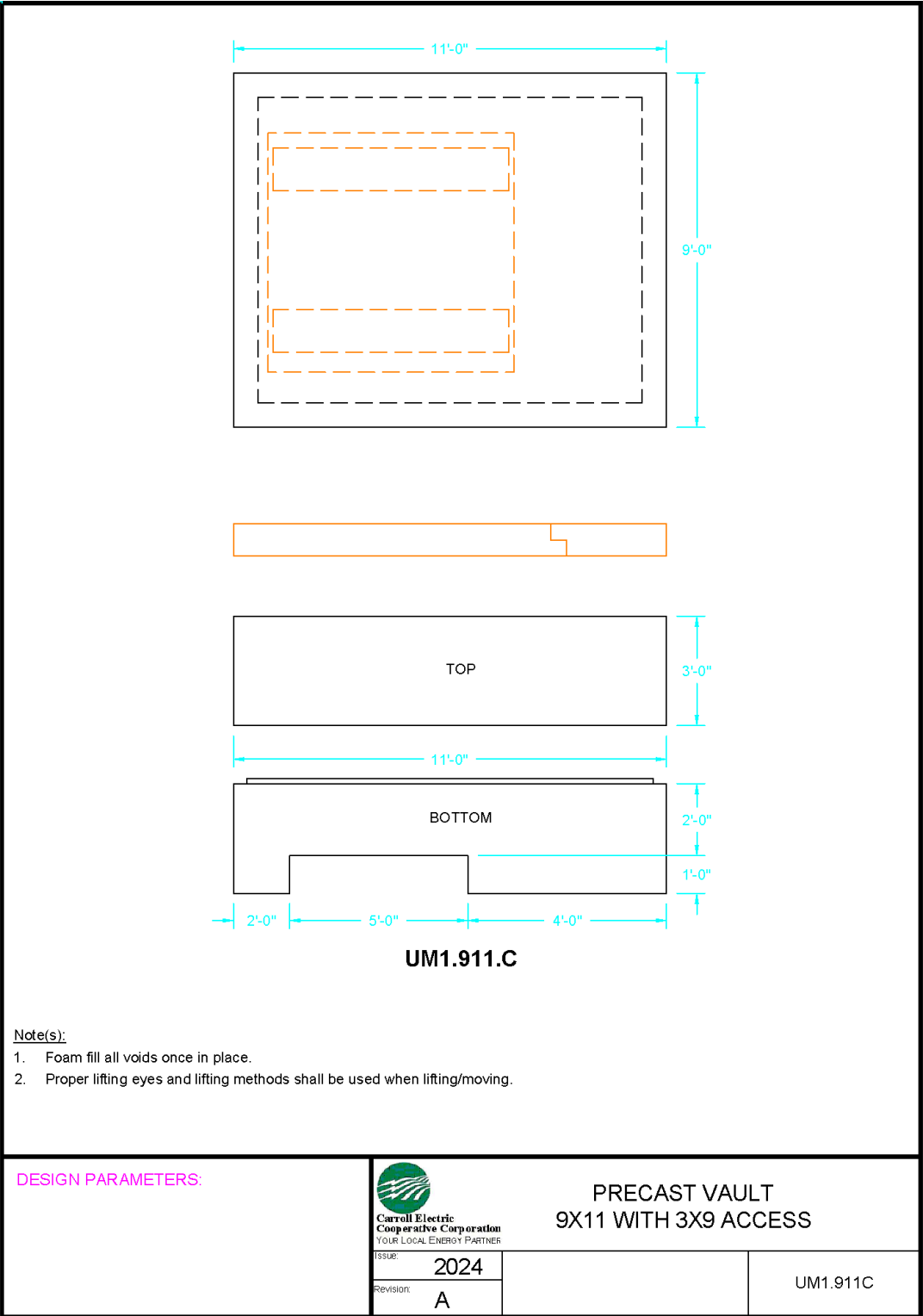
**Note(s):**

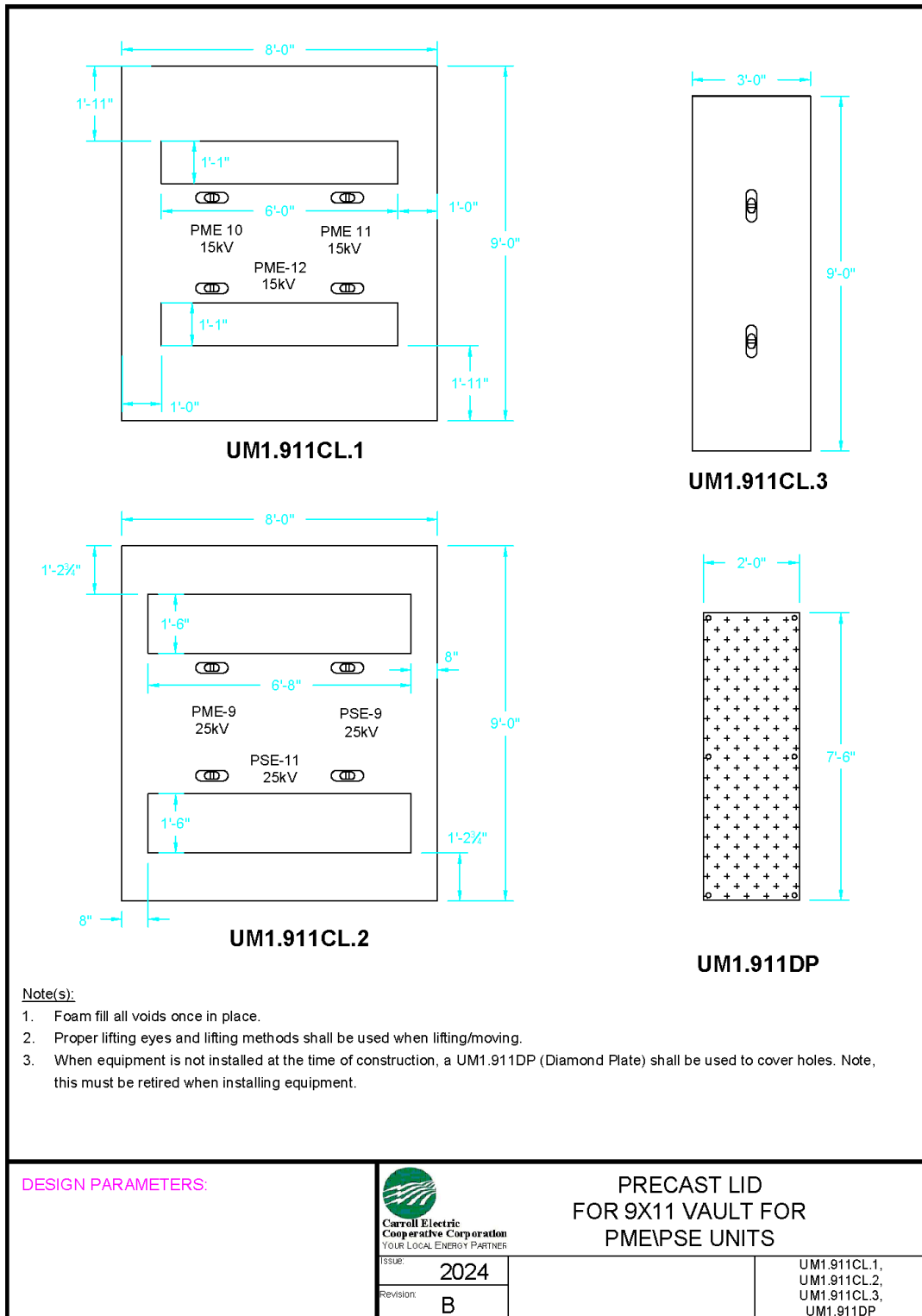
- Concrete specifications: 3500 psi. minimum, 4%-6% entrained air, maximum slump 6", 3/4" maximum size aggregate. Independent concrete testing shall be required to confirm specifications.
- Reinforcing steel: ATSM-A615 Grade 60, place approx. 6" O.C. each way and securely tied together.
- Minimum concrete cover over reinforcing steel 3" unless noted.
- Wood float finish leaving no depressions.
- Sub-grade soils shall be well compacted as to provide appropriate distribution of loads.
- Maximum of (8) 4" conduits on the secondary side of the transformer; where more are required install "UK5.3". If (8) 4" conduits will not fit into the opening as specified above a vault or secondary enclosure will be required.
- Secondary wire smaller than 350 MCM shall be installed in 3" conduit. Wire sizes 350 and above require 4" conduit.
- 2000 kVA and above transformer sizes shall be placed on a cast-inplace pad.
- Replace "X" with 1, 2 or 3 to specify required pad.

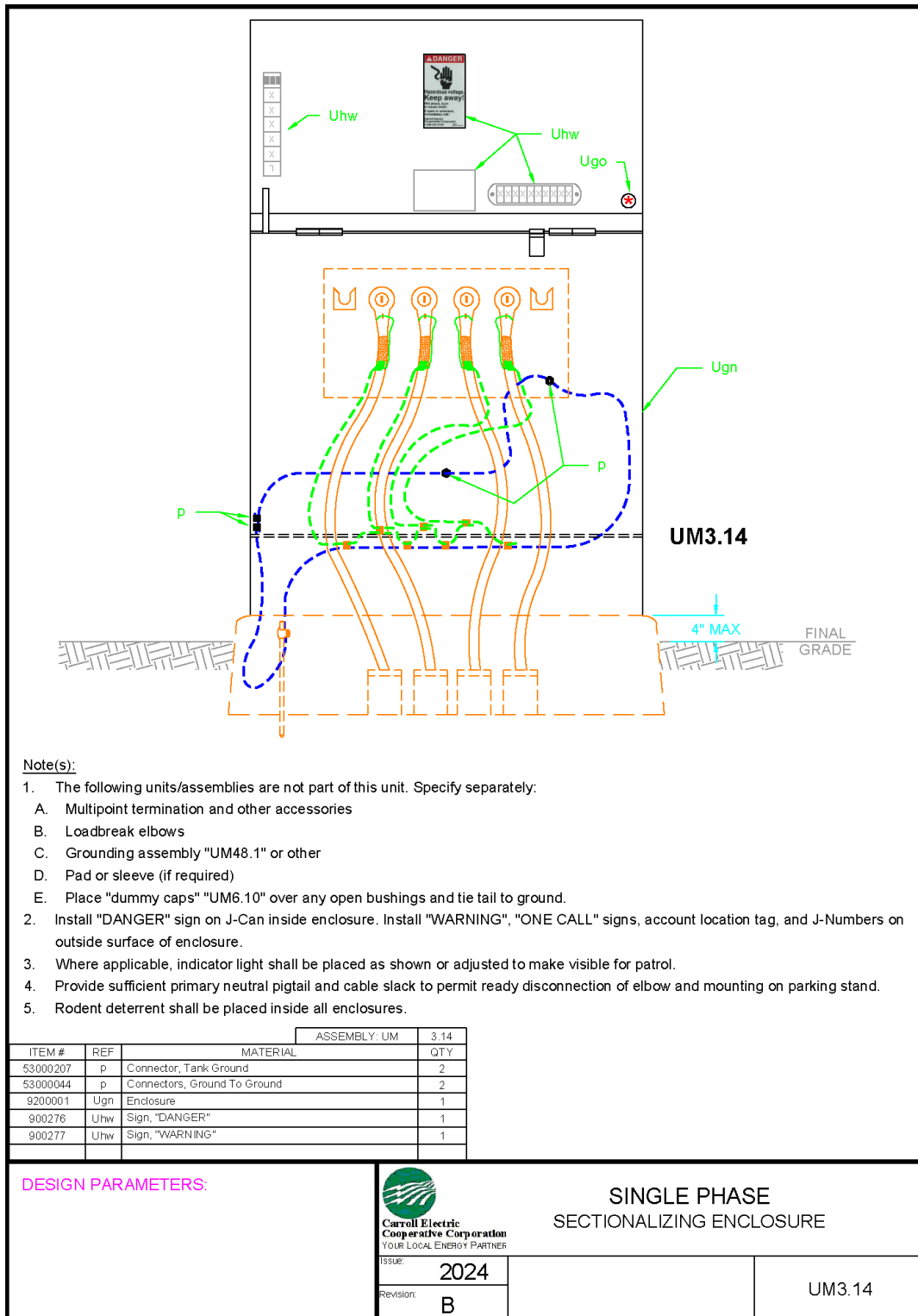
<b>DESIGN PARAMETERS:</b>		 <b>THREE PHASE TRANSFORMER PAD</b> CONCRETE	
		ISSUE: <b>2024</b> REVISION: <b>C</b>	UM1.6C.X

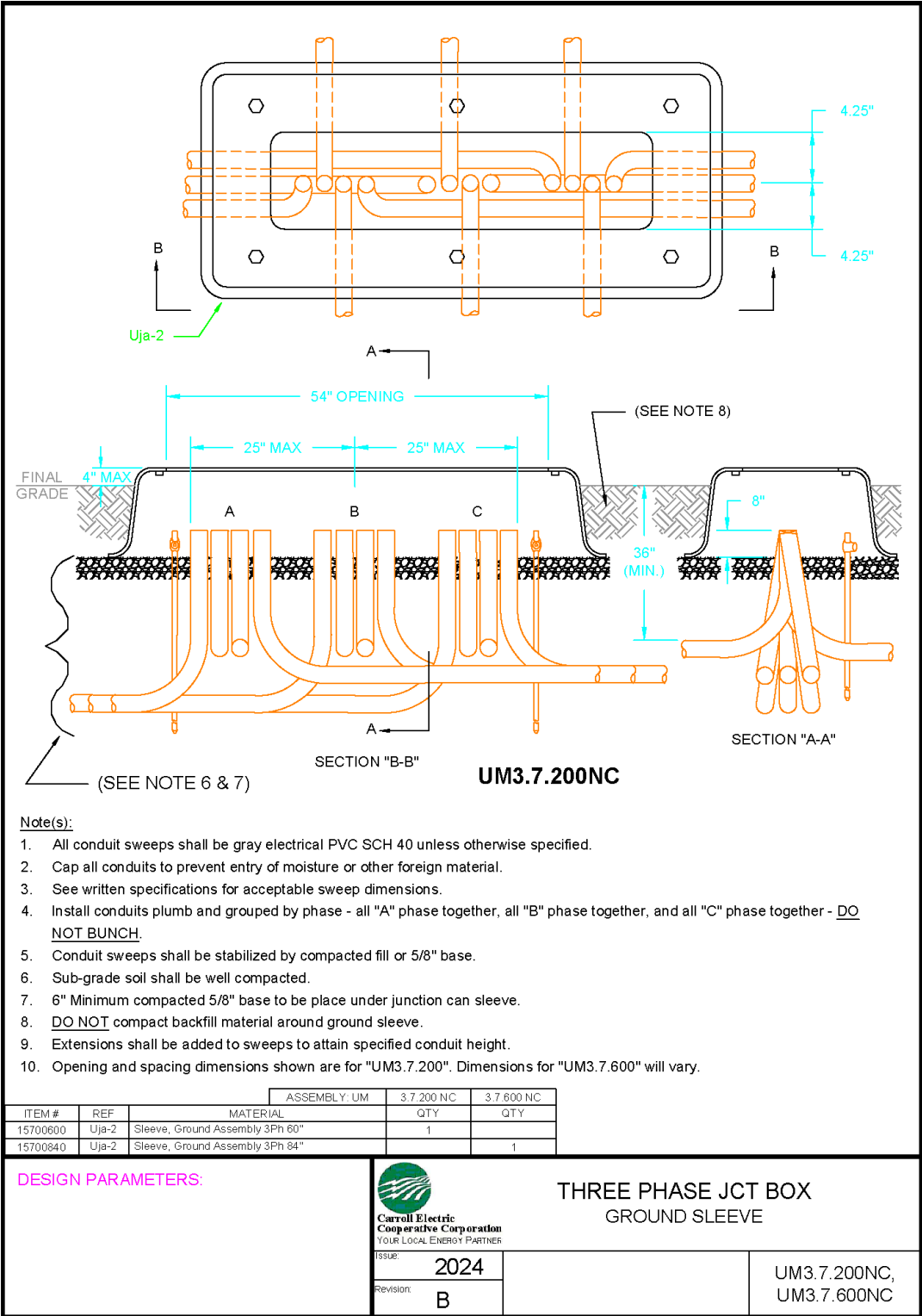




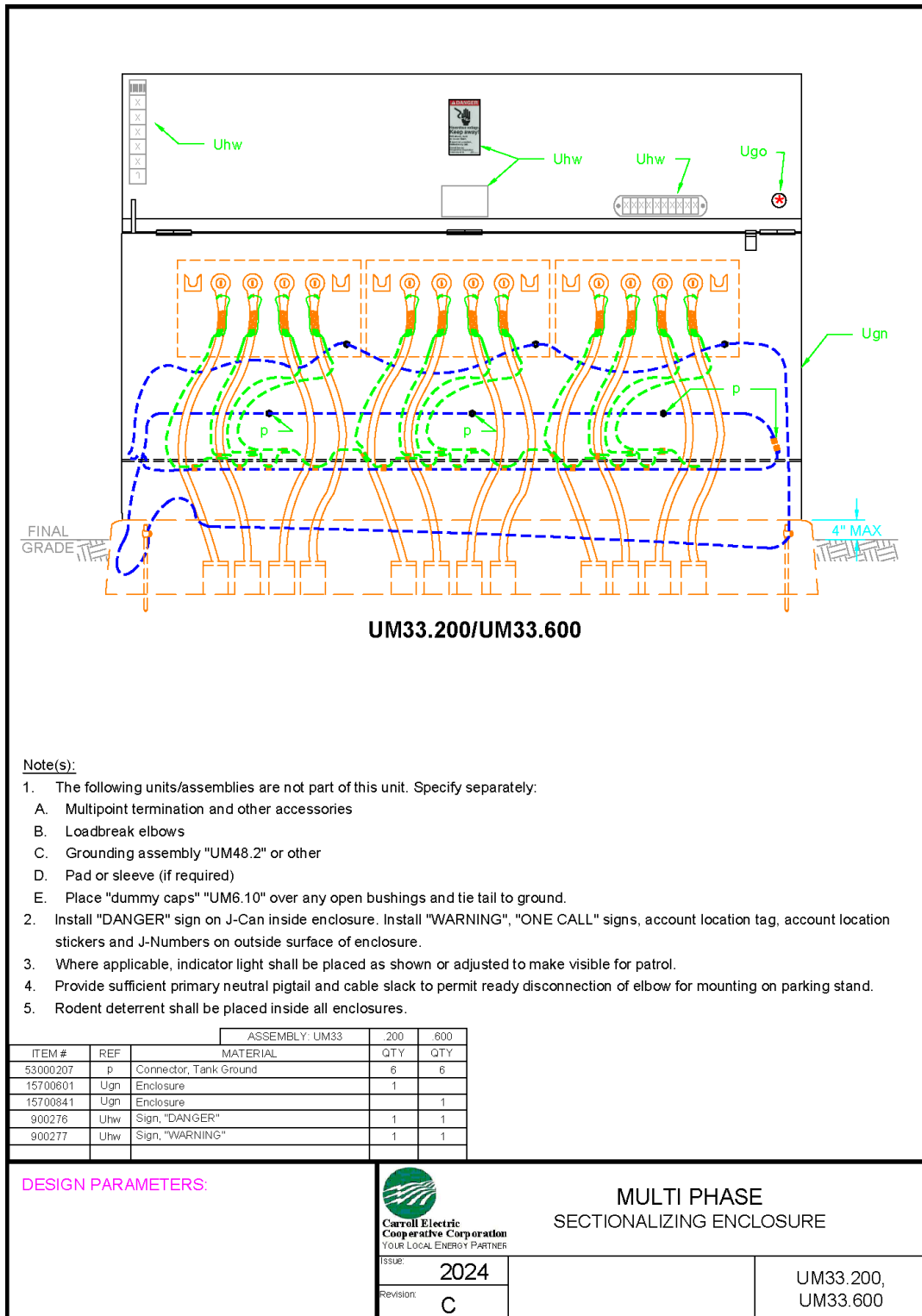


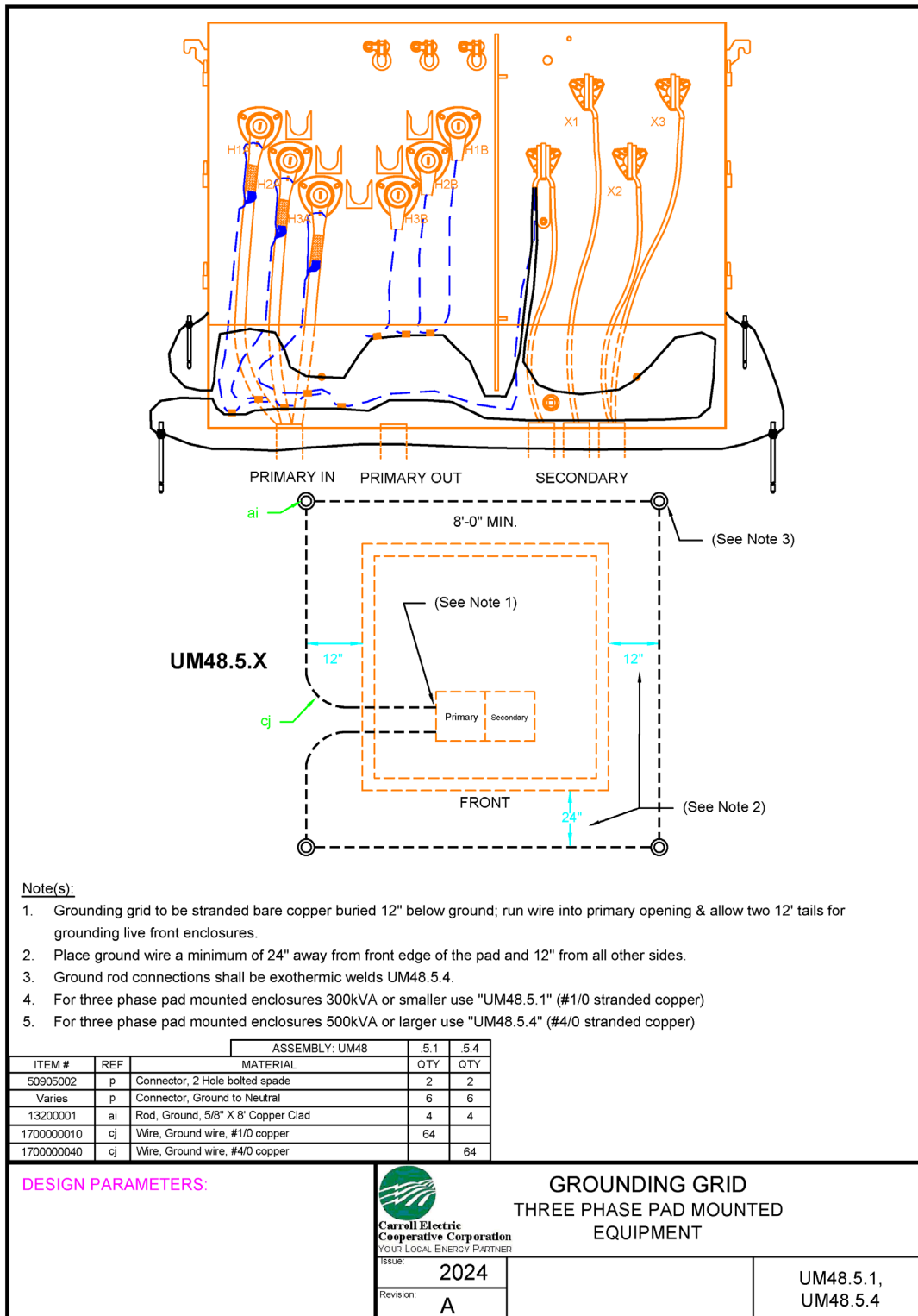


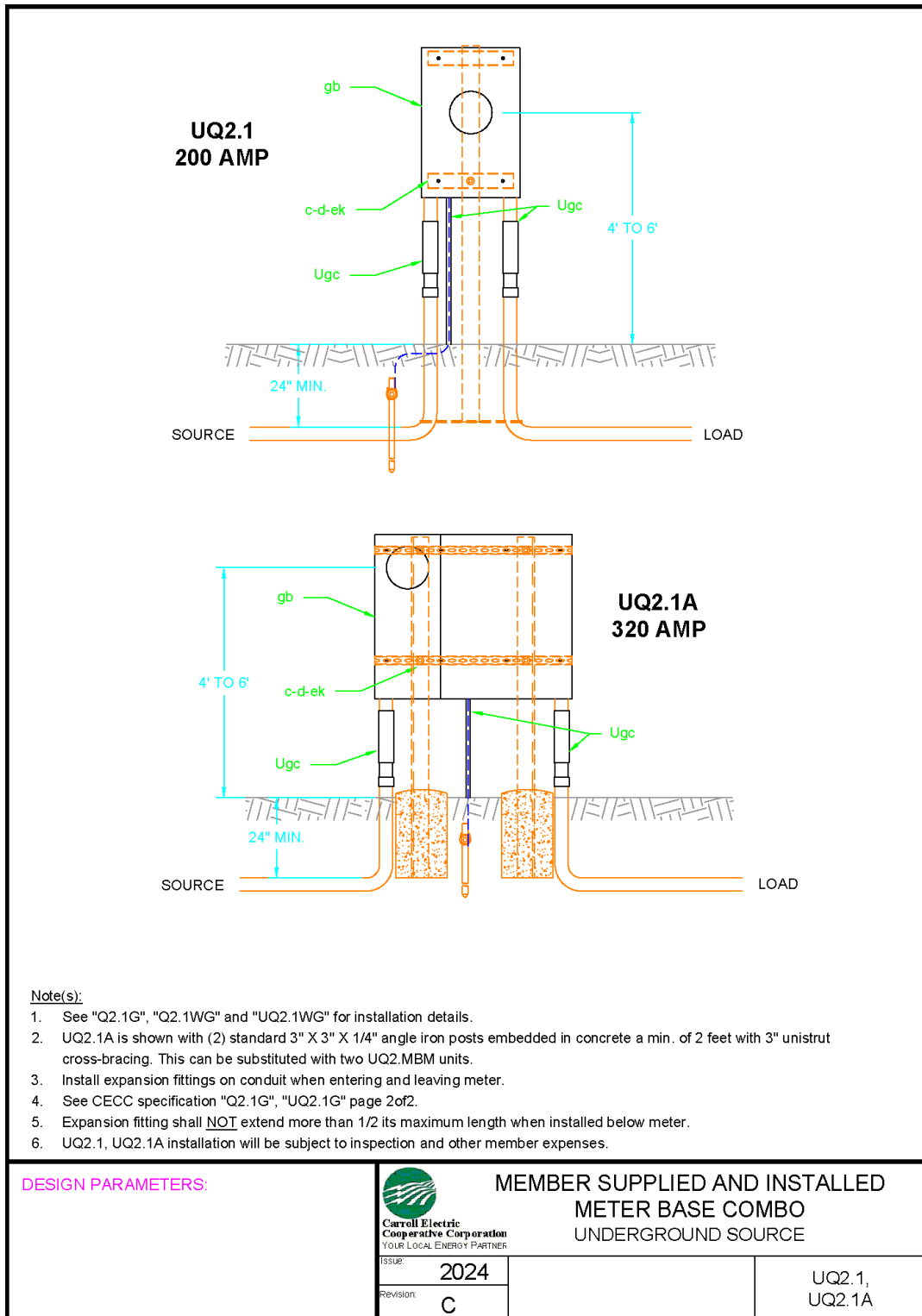


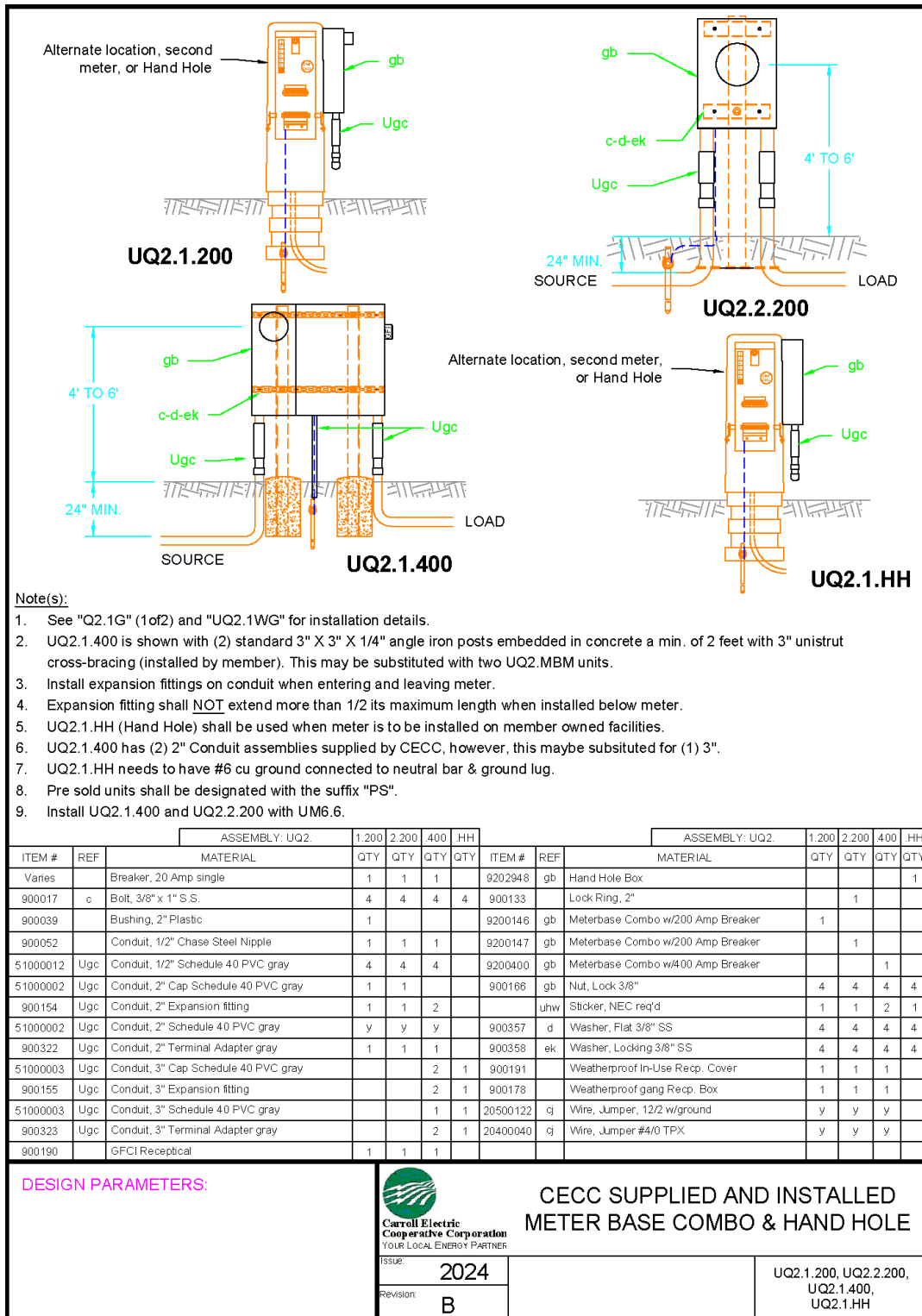






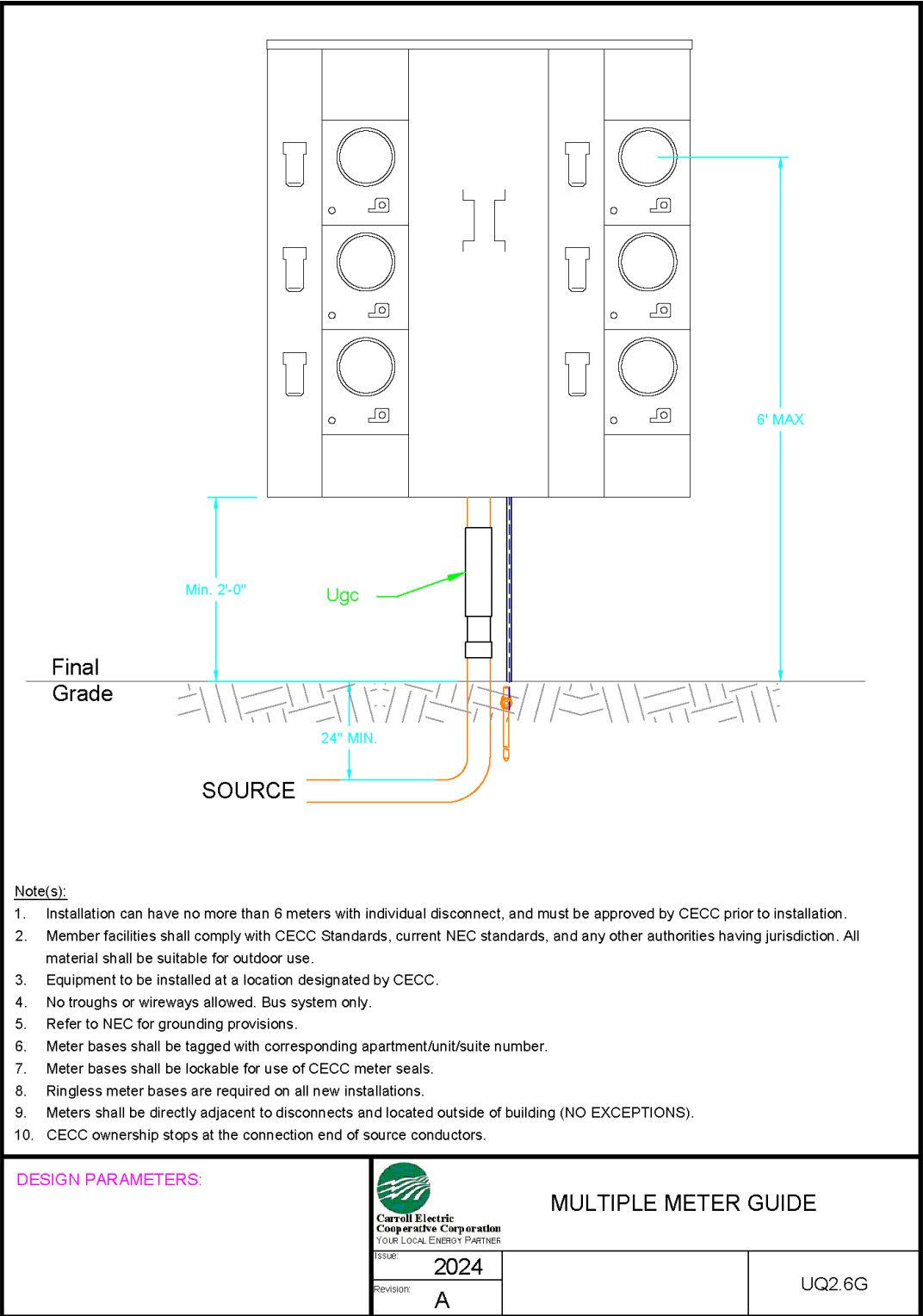


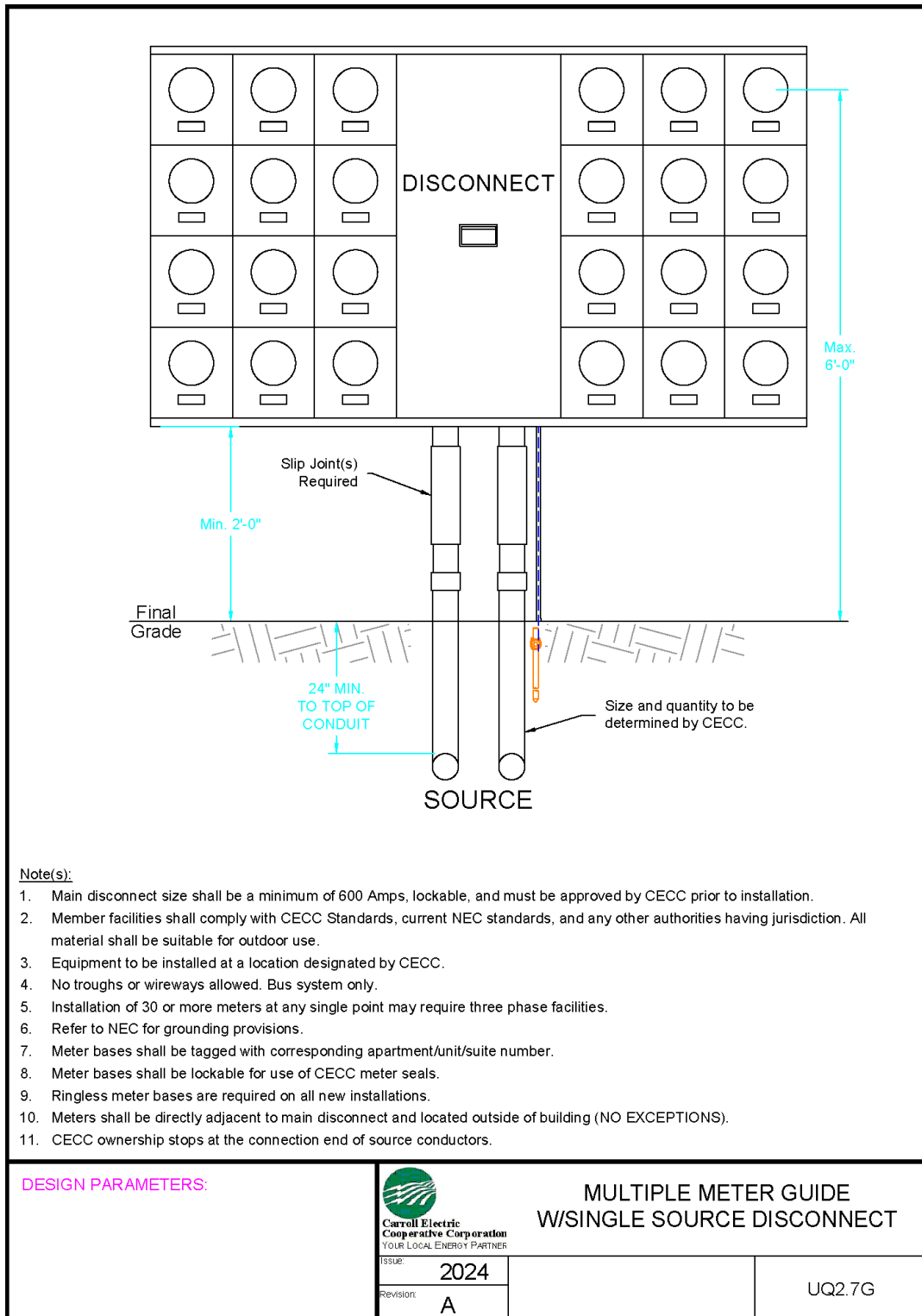




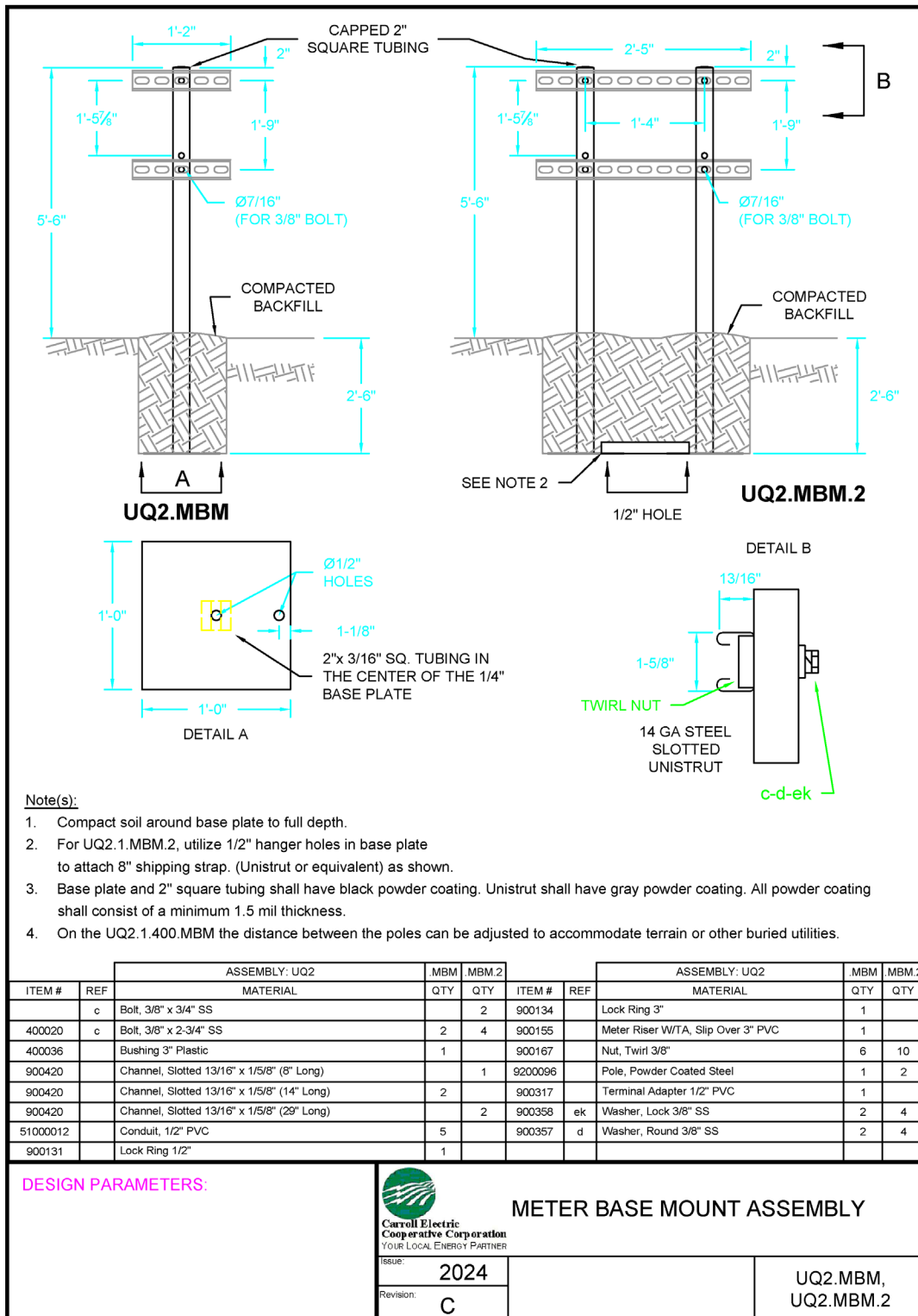


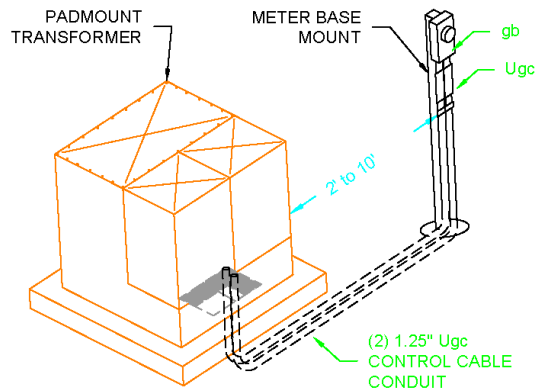








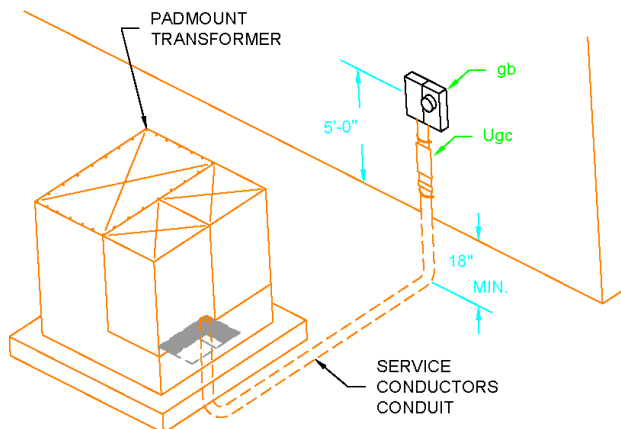


**UQ2.7, UQ2.17**

CT'S mounted inside transformer.  
(Materials supplied by CECC)

Note(s):

1. Meter base must be mounted free standing.
2. Meter socket must not be attached directly to pad-mounted transformer.
3. 4'-0" minimum & 6'-0" maximum height to center of meter.
4. Conduit shall be used for secondary control wires to meter socket.
5. Meter base shall be supported per nec requirements.
6. Secondary conductors supplied by member.
7. UQ2.7 designates single phase applications and UQ2.17 to designate three phase.
8. Replace "XXX" with .7, .17 accordingly.
9. Point of demarcation is the secondary lugs of transformer.

**UQ2.7A, UQ2.17A**

CT'S mounted on structure. (Materials supplied by the member)

Note(s):

1. Meter base must be mounted beside CT cabinet.
2. 4'-0" minimum & 6'-0" maximum height to center of meter.
3. Meter base shall be supported per NEC requirements.
4. Secondary conductors supplied by member.
5. UQ2.7A designates single phase applications and UQ2.17A to designate three phase.
6. Replace "XXX" with .7A, .17A accordingly.
7. Transformer must be located a min. of 15' away from any buildings.
8. Point of demarcation is the secondary lugs of transformer.

ITEM #	REF	MATERIAL	ASSEMBLY:UQ			
			2.7	2.7A	2.17	2.17A
5100000x	Ugc	Conduit, as required	As REQ	As REQ	As REQ	As REQ
Varies	Ugc	Conduit, Expansion Fitting	2	1	2	1
		Control cable, as required	As REQ	As REQ	As REQ	As REQ
	Usd	Current transformer, as required	As REQ	As REQ	As REQ	As REQ
92000141		Meter Base Mount	1		1	
	gb	Meter socket as Specified	1	1	1	1
Varies		Pipe strap, as required	As REQ	As REQ	As REQ	As REQ
	se	Potential transformer, as required		As REQ		As REQ

General Note:

1. No CT meter shall be placed for a residential application without engineering approval.

**DESIGN PARAMETERS:**
**C.T. METER BASE INSTALLATION**  
 SINGLE/THREE PHASE

UQ2.XXX

