

RESOLUTION 88-176
OF THE COUNCIL OF THE CITY OF FORT COLLINS
APPROVING REVISED ELECTRIC CONSTRUCTION
POLICIES, PRACTICES AND PROCEDURES

WHEREAS, Sections 26-24 and 26-463 of the Code of the City of Fort Collins authorize the Director of Utility Services to promulgate appropriate rules, regulations, policies and procedures for the electric utility; and

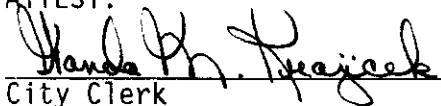
WHEREAS, the City Council has reviewed revised Electric Construction Policies, Practices and Procedures relating to the provision of electric service to new construction and redevelopment and desires to approve the same.

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF FORT COLLINS that the revised Electric Construction Policies, Practices and Procedures, attached hereto and incorporated by reference, be, and they hereby are, accepted and approved.

Passed and adopted at a regular meeting of the Council of the City of Fort Collins held this 1st day of November, 1988.

Mayor 

ATTEST:


City Clerk

ELECTRIC CONSTRUCTION POLICIES, PRACTICES AND PROCEDURES

Application of Policy

This policy applies to all construction and remodeling or redevelopment. For the purpose of this policy, remodeling or redevelopment is any construction or modification which changes the character, use or occupancy of a site or structure and effects the continued or future electric service to such site or structure.

Underground Construction Required

All existing and new overhead utility lines and line extensions shall be installed underground in accordance with the requirements of the electric rules and regulations.

Costs

Cost estimates from preliminary plats will be furnished to developers for planning purposes (based on average electric costs developed by the Utility from previously completed projects) on request. Developers will be given a firm price for the underground electric system for a subdivision or mobile home park or planned unit development after meeting the following requirements:

1. Furnish the Utility with three (3) copies of the final approved subdivision plat.
2. Furnish the number, size, and location of points-of-service at which electric service is requested.

When the developer requests the actual construction of the project be started, a payment of fifty percent of the quoted firm price will be required. This partial payment need only be paid on the portion of the electric underground system which is to be constructed and not necessarily on the whole subdivision project, provided that such portion must be suitable for such partial electric service. Quoted firm prices will include, off-site facilities, primaries and streetlights. The owner will be charged for electric services not paid for by the developer.

The underground electrical system will be installed in two phases:

1. The first phase includes the installation of the primary conduit, transformer vaults, primary conductor, and customer service provisions from the transformer vault to the nearest lot corner or on-site transformer. Upon completion of this phase of the project, the final payment of the quoted firm price becomes due and payable. The electrical system will be energized following receipt of payment of all project fees and charges.

2. The second phase includes the installation of the customer service to the lot corner or on-site transformer or meter socket. Service will be run upon mutual agreement, as to point-of-service and meter location. A separate charge will be made for the service prior to installation.

Modifications to the development plans requiring field changes in the electric system and unforeseen construction obstacles such as frost and rocky soil conditions will be charged on a change order basis and will be coordinated with the developer prior to proceeding with the work.

Residential Construction

This policy should be applied to new subdivided areas where curb (except for radius sections) and grading has been completed but where gas and telephone utilities and paving have not been installed. (See Construction Sequence.)

Residential construction as referred to by this Utility, is a single phase primary system complete with transformer vaults and transformers designed to reduce the primary system voltage to the standard residential voltage of 120/240 volts, three wire single phase, including the three wire electric service to the meter location. The electric facilities will generally be installed underground behind the curb or sidewalk with a minimum cover of 30 inches, and will generally be completely at or below grade utilizing front lot line construction. Streetlighting will be installed in accordance with the City of Fort Collins design criteria and standards for streets.

Meter Sockets

Meter sockets as approved by the Utility will be furnished and installed by the owner or his agent as a contribution in aid to construction on a non-refundable basis. Meter sockets shall be rated for a minimum of 100 amps. The Utility reserves the right not to energize an under-rated or unapproved meter socket. Damaged meter sockets will be replaced and installed by the owner or his agent at no expense to the Utility. For single family dwellings, the Utility will approve only meter socket housings and enclosures that are securable with a single meter seal. The owner will be responsible for the special equipment required for service capacity in excess of 200 amps.

Single Occupancy (single residence)

Before electric service is installed, the meter socket (furnished by the owner and approved by the Utility) shall be installed and approval obtained from the Building Inspection Department. A rigid non-metallic conduit with a 24-inch 90-degree bend elbow attached from the socket to a point 36 inches below finished grade, must be provided. The conduit size shall be as specified by the Utility and shall not be less than 2 inches inside diameter. The Utility will furnish and install the service conductors to the meter socket. The meter must be located for easy reading and access by the Utility on a side wall of the residence as

close to the street side of the residence as possible and shall not be in an enclosed or fenced area of the yard. The location of the meter shall be such that it is not necessary for the electric service to cross over or under the services of other utilities. The Utility will install, own, and maintain all underground service wires, buses, and electrical devices up to and including provisions for connection of the customer's service wires; such connection provision to be generally located within the confine of the meter socket enclosure. All construction and maintenance on the customer side of any provision for customer service wire connection including the making of such service connections shall be done by someone other than the Utility. The secondary electric service is to be paid at the time the building permit is issued.

Multiple Occupancy (apartments)

Where service is provided to individual customers located in a structure designed for multiple occupancy, meters should be grouped for service from a single circuit secondary service. The location of the meters shall allow access, at all times, by Utility personnel for the purposes of reading meters and maintaining Utility owned equipment. The location shall be on the exterior for multiple occupancy, unless otherwise approved by the Utility. Each meter socket shall be plainly and permanently marked to indicate which apartment or unit is supplied therefrom. The marking is to be the same as the mailing address for each unit. The owner or developer will be responsible for electricity delivered through unmarked, illegible or incorrectly labeled meter sockets. All expenses incurred by the Utility related to correcting improperly labeled meters will be billed to the developer or owner whose responsibility it shall be to pay such expenses within 30 days of receipt of said billing. The owner will furnish and install Utility approved meter sockets and rigid (non-metallic) service entrance conduit with 24 inch radius and 90 degree bend elbow to a point 36 inches below finished grade. The service conduit shall be not less than 2-1/2 inches inside diameter or as specified by the Utility. Utility approved sockets or socket arrangements will be employed.

At the option of the Utility, the owner may be required to furnish and install specified service conductors to the transformer terminals. Service conductor size and insulation shall be as approved or specified by the Utility. Trenches for secondary services to apartment complexes which are 8 plexes and larger are to be inspected by Building Inspection.

Mobile Home Park

Ganged Meter Sockets

Electric facilities will generally be installed on rear lot lines (unless otherwise approved by the Utility) to ganged meter sockets with breakers, and will be installed and billed with the first phase of construction. The location of the meter shall allow access, at all times, by Utility personnel for the purposes of reading meters and maintaining

Utility owned equipment. The meter sockets with breakers will be furnished, maintained, and installed by the owners. Meter sockets and breakers shall be Utility approved devices. Meter sockets shall be rated for a minimum of 100 amps. A 2-inch rigid non-metallic utility service conduit (or conduits as required) from the meter sockets with a minimum cover of 42 inches (\pm 6 INCHES) from finished grade, using a 24 inch radius 90 degree bend is to be installed by the owner and approved by the building inspector. If the meter sockets are not building mounted the 2" conduits shall be rigid steel and shall be supported in concrete. The mounting height from the bottom of the meter to ultimate final grade should be 36 inches. Each meter position shall be plainly and permanently marked to indicate which unit is supplied therefrom. The marking is to be the same as the mailing address for each unit. The owner or developer will be responsible for electricity delivered through unmarked or incorrectly labeled meter sockets. Expenses incurred by the Utility related to correcting improperly labeled meters will be billed to the developer or owner whose responsibility it shall be to pay such expenses within 30 days of receipt of said billing. All wiring from the customer side of the meter is to be installed, owned and maintained by the owner. The point of delivery shall be the load side terminals of the meter socket. The Utility will install, own, operate, and maintain circuits and equipment up to the point of delivery. The Utility shall have Utility sealed access to the meter socket. The customer shall own, maintain and operate all breakers, receptacles, and other devices on the customer side of the point of delivery.

Single Position Pedestals

Single position mobile home utility meter pedestals may be used with the same Electric Construction Policies, Practices and Procedures as applies to ganged meter sockets.

Planned Unit Developments

The applicable service rules as described under the residential construction, mobile home park, and commercial headings apply.

Commercial

Commercial development will be considered on an individual basis dependent upon size, type and characteristics of the load requirement. The Utility will endeavor to provide special service voltages and/or connections when a Utility approved document is presented, provided that such document or documents accurately and completely describe the owner's load and desired entrance needs. Service requirements, construction costs and payment terms will be given on request. Early contact with the Utility during the planning stages is essential. The Utility will not be obligated to provide special service voltages or connections to those who have not coordinated their planning with the Utility. Entrance requirements including location, number of phases, voltage, amperage per meter, number of meters, and underground or overhead must be determined with the Utility at an early date. Typically, the Utility will provide 3

wire 120/240 volt single phase, 3 wire 208Y/120 volt single phase, 3 phase 208Y/120 4 wire service, or 3 phase 480Y/277 volt 4 wire service. Other service voltages or types must be approved by the Utility.

Because of planned underground service facilities and requirements to convert overhead lines to underground, the location or characteristics of existing or prior electric service facilities will not determine the location or service characteristics of a new or modified electric service entrance. Except when the Utility determines that underground is not feasible, services will be installed underground. The owner will be required to furnish, install, and maintain all circuits and equipment on the customer side of the point of delivery.

Streetlighting will be installed in accordance with the City of Fort Collins' design criteria and standards for streets.

Meter Sockets

For loads not exceeding 200 amps or 300 volts applicable meter socket rules under the Residential heading apply. Contact the Utility for 320 amp single phase socket approval on a case by case basis.

For loads exceeding 200 amps or 300 volts but less than 600 volts, meter sockets will be furnished by the Utility and installed by the owner or his agent. Metering will be instrument transformer rated with instrument transformers furnished by the Utility. The owner or his agent will furnish and install all necessary conduit from the meter socket to the instrument transformer location.

Instrument transformers and associated equipment such as enclosures, racks, poles, cable, terminations, insulators, etc., for primary metering will be furnished and installed by the Utility at the expense of the customer on a non-refundable basis. The owner or his agent will install the meter socket (furnished by the Utility), and will furnish and install all necessary conduit from the meter socket to the instrument transformer location.

The location of the meters shall allow access, at all times, by Utility personnel for the purposes of reading meters and maintaining Utility owned equipment. The location shall be on the exterior unless otherwise approved by the Utility. Each meter socket shall be plainly and permanently marked to indicate which unit is supplied therefrom. The marking is to be the same as the mailing address for each unit. The owner or developer will be responsible for electricity delivered through unmarked, illegible or incorrectly labeled meter sockets. All expenses incurred by the Utility related to correcting improperly labeled meters will be billed to the developer or owner whose responsibility it shall be to pay such expenses within 30 days of receipt of said billing.

Construction Coordination Sequence

General

Construction coordination and scheduling is the responsibility of the developer and owner/builder. To ensure maximum economy in construction, the sequence of installation of utilities, streets, driveways, sidewalks, etc., must be coordinated with the Utility. Increased construction cost incurred by the Utility due to the lack of economic scheduling or construction coordination will be charged to the developer or owner/builder.

In general, underground utilities should be installed in order from deepest to shallowest, i.e. the deepest utility should be installed first, the second deepest second, etc.

The underground utility installation sequence diagram included herein illustrates the typical construction plan and profile along with typical developer and owner/builder sequence steps. This diagram is provided as a guide to assist the developer and the owner/builder. Actual construction sequences must be coordinated with the Utility on a project by project basis.

Changes or additions to the electric system due to development deviations will be made at the expense of the developer or owner. A development deviation is any variation from the prescribed sequence of development which increases the cost of construction for the Utility.

Prerequisite to Construction

Easements, indicated on the work sketch for the location of the underground lines and services as furnished by this Utility, must be granted by the developer. All lot corners pertaining to the underground system must be staked and all final grading on the service lines and easements completed before work will be started. Curb, (except for radius sections), gutter, and final grade, adjacent to and 15 feet from the property side of the curb, must be completed prior to the installation of the electric facilities. Concrete curb and sidewalks must be cured to a minimum of 7 days to prevent damage thereto.

Street Crossing Option

Upon the approval of the Utility, a developer may install conduits at street crossings. This option serves to expedite the development process when street paving is scheduled before the underground electrical system can be installed. The Utility will specify the locations of such crossing and provide all materials to the developer. All crossings must be inspected and approved by the Utility. A credit will be issued to the developer in the amount of the net savings realized by the Utility due to the developer's installation of the conduits.

The developer/owner/agent is responsible for the cost and repair or replacement of damaged or unusable conduit in street crossings provided for installation of electric and joint use facilities.

Trenching Option

At the discretion of the Utility the developer or owner may be required to furnish all necessary trenches, excavations, and backfills to meet the requirements established by the Utility for the underground electric system. A credit will be given based on trenching costs to the Utility in average soils. All trenches dug by the developer or owner will be inspected and approved by the Utility prior to the installation of conduits and conductors. The Utility will, in these cases, approve the backfill material and installation. If the excavated material contains rock, the developer will be required to supply proper backfilling material.

It is the developer or owner's responsibility to coordinate all work including the inspection of trenches and backfill. The Utility reserves the right to test compaction or depth at the cost of the developer or owner.

Joint Use Construction

In cases where the electric trench is to be used for the installation of cable television and or telephone facilities, plans for same shall be made with the Utility for inclusion in the final electrical design prior to the developer's request for scheduling and a minimum of two weeks prior to the date that electric construction is to begin.

The initial planning, coordination, and implementation of a joint use agreement with the Utility shall be the responsibility of the developer/owner and or third party utilities desiring joint use trench.

The Utility will not offer joint use to those who have not completed the coordination of their planning with the joint use parties.

Joint use costs will be charged to the owner/developer or third party utility to recover engineering service, construction and administrative costs.

Vacating an Easement

In the case where an easement has been granted and electric distribution facilities have been installed, the parties seeking to have such easement changed shall pay the Utility the actual cost for relocation of the Utility's electric distribution facilities and shall provide the necessary alternative rights-of-way.

Temporary Lines

Any temporary electric service lines required by the developer for construction purposes before the underground system is completed shall

be at the expense of the developer. At the option of the Utility the developer will be billed for the actual or estimated cost of construction, plus estimated retirement costs. There will be no charge for recoverable materials.

Working Adjacent To Overhead Lines

Any person, consumer, business, or other party working within ten (10) feet of overhead power lines carrying more than 600 volts shall provide 72 hours notice to the Utility of such work. The Utility shall coordinate the efforts to cover up or in some manner to make such lines safe for the work or activity. The consumer, person, business or party shall pay all costs associated with making such lines safe. Failure to notify the Utility 72 hours in advance of any activity within 10 feet of overhead lines, shall relieve the Utility of all responsibility or liability for accidents, injuries, or damages arising through or from such activities.

Locate Policy

To prevent service interruptions, personal injury, and property destruction resulting from damage to underground facilities during excavation, Colorado state law requires notification of utilities at least two business days prior to any excavation. Notification will be made through the Utility's notification agent. Upon receiving such notice, the Utility shall advise the excavator of the location and size of underground facilities in the proposed excavation area. The Utility will designate the location of the facilities with clearly identifiable markings within eighteen (18) inches, laterally, from the exterior sides of the facilities. The excavator will undertake the excavation within 72 hours of receiving the facility location. If an excavator discovers that the Utility has incorrectly marked the location of the underground facilities, the Utility must be informed immediately and excavation must be stopped. Utility personnel will repair any damage and correct the faulty markings. Accidental damage to mislocated facilities will be the responsibility of the Utility. Failure by the excavator to undertake the excavation within 72 hours will relieve the Utility of all responsibility and liability for the accuracy of the locations.

In the event of actual or potential damage to an underground utility facility, the excavator shall stop excavation and immediately notify the Utility of the location and extent of such damage. The excavator will be responsible for the cost of repairing facilities, including mobilization of Utility crews, damaged under any or the following conditions:

1. Correctly located underground facilities,
2. Damage to facilities in areas where locations were not requested,
3. Damage to facilities that were located in excess of 72 hours prior to excavation,

4. Continued damage to the Utility's system resulting after the first exposure of incorrectly located facilities.

All excavation shall be in conformance with applicable local, state and federal laws, and as described above.

Contractor Access To Energized Transformer Compartments

The Utility will provide access to energized transformer compartments at the request of a licensed electrical contractor or electrician. No such access will be allowed until the Utility and contractor/electrician have executed an agreement specifying the responsibilities of each party. The contractor/electrician must take every reasonable measure to ensure that public health, safety, and welfare is protected during the period in which access to the transformer has been granted.

Other Rules and Regulations

Where other published rules of the Utility do not conflict with the above, they are applicable.

Glossary

Building Site Charges - Charges for installing electric service lines from the street to the residential meter or commercial transformer. Off site facilities (kVa load) charge, primary service charge, and secondary service charge are collectively referred to as "building site charges".

Development Charges - Charges for providing primary electric service to the lot corner of the site including the cost of streetlight construction. Three charges, off site facilities, primary charge and streetlight charge are collectively referred to as "development charges".

Excavation - Any operation in which earth is moved or removed by means of any tools, equipment, or explosives and includes, but is not limited to, auguring, backfilling, ditching, drilling, grading, plowing-in, pulling-in, ripping, scraping, trenching, and tunneling.

Off Site Facilities - Delivers electric power from main substations to subdivisions and load areas.

Off Site Facilities Charge - Cost to bring primary electric power from main substations to subdivisions and load areas.

Point of Delivery - That point defined as the load side of the electric meter or the load side of the main disconnect where current transformers (CTs) are employed or as otherwise designated by the Utility beyond which the customer is responsible for installation and maintenance of electrical equipment.

Point of Service - That point at which the Utility's service lines, primary or secondary, enter the property of the consumer, or as otherwise designated by the Utility.

Primary Charge - Cost to bring primary electric power at primary voltage from the subdivision boundary to the internal loads in the subdivision.

Primary Electric Service - All cable, enclosures, switches, and associated apparatus necessary to provide primary service to the transformers or primary bus from the primary feeder.

Primary Feeder - Delivers electric power at primary voltage to the subdivision or individual load from the off site facilities.

Primary Service Charge - Cost to bring primary voltage electric cable to pad mounted transformers or building vaults on customer's premises.

Secondary Electric Service - Electric distribution service cables of 600 volts and below from the transformer to the customer's metering point.

Secondary Service Charge - Cost to bring electric distribution service cables of 600 volts and below from the transformer to the customer's metering point.

Streetlight Charge - The charge for the installation of new streetlights. Streetlights are installed in accordance with the City of Fort Collins' Design Criteria and Standards For Streets.

Utility - The City of Fort Collins Light and Power Utility.