

DENTON MUNICIPAL ELECTRIC

Typical Multi-Family and Townhouse Development Comments

Electric Service Standards

The electric utility installation shall be per the DME Electric Service Standards. The Electric Service Standards are available on-line at www.dmepower.com.

National Electrical Safety Code

The developer is responsible for maintaining the level of care set forth by the latest version of the State of Texas and the City of Denton adopted National Electrical Safety Code (NESC) for existing and planned electric infrastructure in all developments.

Typical Easement Requirements

The City of Denton Ordinance #2004-125 formally adopted the National Electrical Safety Code and requires a minimum electric transmission line clearance from all real property located near electric transmission lines. Clearance is more specifically defined as being a minimum of thirty (30) feet from either side of the centerline of the particular transmission pole(s) for a total overall minimum width of 60 feet. Compliance with the clearance criteria in the NESC may require greater clearance widths in some instances. Clearances for non-transmission voltage lines shall also be maintained in accordance with the NESC. For purposes of this ordinance, the word "transmission" shall be defined as any line operating at a nominal line-to-line voltage equal to or greater than 60,000 Volts.

Unobstructed and adequate space shall be provided for all clearance areas required by this ordinance that will allow ingress and egress for utility-related personnel and equipment to perform operations, maintenance, and replacement of electrical supply and communication lines. Such clearance provision shall be included in the design and construction when property is developed or altered. Clearance areas shall be recorded by the property developer or the record owner on subdivision plats; or shall be evidenced by written instrument, duly recorded, in the Public Records of Denton County, Texas.

Texas Department of Transportation road rights-of-ways shall have twenty feet of easement parallel and adjacent to the road rights-of-way per Denton Development Code 35.21.4. City of Denton streets, where DME is installing underground electric facilities, shall have eight feet of easement parallel and adjacent to the road rights-of-way. City of Denton streets, where DME is installing or has existing overhead electric facilities, shall have sixteen feet of easement parallel and adjacent to the road rights-of-way. DME may require additional easements for the safe, reliable, and efficient installation of electric utilities. These additional easements will be determined after the developer provides the final layout of the proposed development. The property owner shall be responsible for maintaining all existing electric and public utility easements on the property.

Final Plat Notice – to be stamped on ALL Final Plats

IMPORTANT NOTICE:

THE CITY OF DENTON HAS ADOPTED THE NATIONAL ELECTRICAL SAFETY CODE (THE “CODE”). THE CODE GENERALLY PROHIBITS STRUCTURES WITHIN 17.5 FEET ON EITHER SIDE OF THE CENTER LINE OF OVERHEAD DISTRIBUTION LINES AND WITHIN 30 FEET ON EITHER SIDE OF THE CENTERLINE OF OVERHEAD TRANSMISSION LINES. IN SOME INSTANCES, THE CODE REQUIRES GREATER CLEARANCES. BUILDING PERMITS WILL NOT BE ISSUED FOR STRUCTURES WITHIN THESE CLEARANCE AREAS. CONTACT THE BUILDING OFFICIAL WITH SPECIFIC QUESTIONS.

Typical Multi-family and Townhouse Service Requirements

Customer shall be responsible for:

- a. Providing Electric Engineering staff an AutoCAD DWG file or DXF file of the site plan to prepare construction drawings.
- b. Providing all surveying requiring for electric utility design and construction.
- c. Before the installation of underground distribution facilities, the Customer shall complete rough site grading, establish final grade along the conductor route, clearly mark or, if required by DME, expose to view any underground installation including gas lines, water lines, wastewater lines, communication lines, etc., and clear the proposed electric route area of all obstructions. Following the electric installation, no change shall be made in the grade along the conductor route without notifying and receiving written consent from DME.
- d. Preparing sites for pad-mounted electric utility equipment such as cutting or filling the site to final grade where the pad-mounted equipment will be placed. Transformers shall not be located in drainage swales.
- e. Coordinating with DME construction crews to allow for timely installation of the electric conduit before paving, landscaping, or installation of other conflicting utilities. In the event it becomes necessary for DME to change from a trench to a bore in-order for electric conduit to be installed so it will be clear of other utilities or from customer added paving or landscaping, then the customer shall be responsible for all additional bore installation costs incurred by DME.
- f. Disposing of material left over from excavation required for electric infrastructure installation.
- g. Stabilizing DME trenches that cross all paved areas. Where city streets are involved, all trenches within the street rights-of-ways under existing or proposed pavement are to be compacted to 95% density in accordance with the North Central Texas Council of Government (NCTCOG) specification 6.2.9. Backfilling and compaction of trenches shall be done in 6" lifts, if concrete is not used. Compaction test and density reports from a creditable geotechnical engineering firm of trenches filled in 6 inch lifts shall be provided to the City of Denton Engineering Department. The backfilling of trenches with one-sack concrete is an alternate method that may be used to obtain the 95% density for trench backfill. DME will fill ditches with concrete if the developer makes arrangements to pay for the one-sack concrete prior to construction.
- h. Calling Dig TESS prior to digging: 1-800-344-8377.
- i. Installing primary conduit required for the development. The contractor must allow DME to inspect and supervise installation of the primary conduit. Contractor shall provide DME a minimum of 24 hours notice prior to when inspection and supervision is required. Routing of primary conduit is not to be changed without written approval of Denton Municipal Electric / Electric Engineering. Denton Municipal Electric will provide the primary conduit material.
- j. Paying 100% of the estimated cost of street lighting facilities in advance of construction when the multi-family development builds City of Denton streets within their overall development.
- k. Installing secondary terminations in the transformers. The service cables are to be terminated back-to-back starting at the holes on the connector nearest the transformer secondary bushing. The first hole on

the connector connected to the X0 Bushing is reserved for the transformer ground and the DME system ground. A DME representative shall be present when the contractor connects the service cables to the transformer connectors. The connectors for single-phase pad-mounted transformers have six positions. The connector for 75kVA and smaller pad-mounted transformers will accept a cable range of #10 to 350 Aluminum or Copper. The connector for 100kVA and 167kVA pad-mounted transformers will accept a cable range of #10 to 500 Aluminum or Copper. The maximum number of customer cables per connector in a single-phase transformer is five. If the customer exceeds five then a secondary connection cabinet is required.

- l. Installing secondary (cabinets, conduits and, conductors) as required. DME limits the number of connections in a transformer; therefore, additional customer provided secondary connection cabinets may be required. Secondary installations shall also include lockable outdoor disconnects in all locations where different customers or metered spaces are served out of the same DME transformer.
- m. Providing and installing transformer pads or foundations. The developer may construct concrete transformer pads onsite using pad details provided by DME. A DME representative shall inspect the transformer pad prior to concrete being poured to ensure compliance to the pad detail. An alternate option is for the developer to use a pre-manufactured polymer-concrete transformer pad that is accepted by DME.
- n. Providing and installing DME approved meter sockets.
- o. Obtaining an electric permit from building inspection.
- p. Obtaining an account with customer service for payment.
- q. Paying for relocation of any existing electric utility facilities created by the development.

Denton Municipal Electric shall be responsible for:

- a. Preparing electric utility construction drawings for development based upon the customer provided AutoCAD site layout.
- b. Installing and terminating primary cables.
- c. Installing transformers.
- d. Installing electric meters into the customer provided DME approved meter sockets.

Denton Municipal Electric will make final comments and may require additional easements once the developer provides the final layout of the proposed development and provides building plans for permitting.

Street Lighting

The developer will be required to pay 100% of the estimated cost of the street lighting facilities in advance of construction when the multi-family development builds City of Denton streets within their overall development. DME will prepare an estimate for the street lighting cost (if required) when preparing the electric utility design for the multi-family development. For budget purposes, use an average of \$2,100 per light. To meet City of Denton requirements, typical light placement shall be at all intersections, in each cul-de-sac, and along all public streets at intervals of not more than three hundred feet.

Additional Inquiries

All site specific, development specific or atypical electrical inquiries shall be directed to the DME Engineering Department at (940) 349-7119.