

**BRAZORIA COUNTY  
UTILITY AND WORK IN THE RIGHT OF WAY  
DESIGN STANDARDS**

**A. *General Requirements***

1. Adequate drainage shall be maintained in ditches at all times.
2. Permittee will use best management practices (“BMP”) (EPA and TCEQ both provide lists of examples of BMPs) to minimize erosion and sedimentation resulting from the proposed installation.
3. The permittee shall take precautions to avoid damage to property. All County Right of Way and property shall be restored to its original condition, as far as practical, in the opinion of the County Engineer or appointed representative.
4. The construction and maintenance of such utility shall not interfere with the property or rights of a prior occupant.
5. Permittee shall not interfere with other utilities located in the right of way. In the event damages occur, permittee will be liable to the County or other utilities running through the right of way.
6. County Engineer shall determine whether or not permittee’s plans shall inconvenience the public. If it is determined that inconvenience to the public exists, then the County Engineer will decide whether such project will be allowed or if an alternative exists so as not to inconvenience the public.

**B. *Safety Requirements***

1. Proper traffic control measures must be put in place prior to beginning work and remain in place during the duration of the job. All traffic control measures must follow the Texas Manual of Uniform Traffic Control Devices (TMUTCD). See Traffic Control Requirements below.
2. During construction, all safety regulations of the Texas Department of Transportation shall be observed.
3. Permittee must take such precautions and measures, including placing and displaying safety devices, as may be necessary, in order to safely conduct the public through the project area. Company shall provide flagmen, signs, signals or devices necessary to provide complete safety to the public.
4. Adequate provisions must be made to cause minimum inconveniences to traffic and adjacent property owners.
5. No cable, conduit and/or pole line shall be laid, constructed, maintained and/or repaired so as to constitute a danger or hazard of any kind to persons or vehicles using such road. Any poles placed in the Right of Way for future installation shall be placed at the back of the Right of Way. Exceptions may be approved by the County Engineer.

**C. *Traffic Control Plan***

1. A traffic control plan, pursuant to the TMUTCD or Engineered Traffic Control Plan must be provided for the following:
  - a. Any construction (i.e. pit, excavation, hole) left open over night, requires specific nighttime traffic control measures pursuant to the TMUTCD;
  - b. If construction is within ten (10) feet of the roadway; or
  - c. Any work performed in the road right-of-way;

2. Plan must be attached to the permit and kept at the job site any time work is being performed.
3. Plan must set forth the time of completion for the job.

**D. Design Standards**

1. All overhead installations shall conform to clearance standards of the Texas Department of Transportation and the pole be placed in the designated area for power specified as set forth in the *Texas Utilities Code, Section 181.045*.
2. All pole installation (including lighting) shall be placed at the backside of the Right of Way to ensure safety to the public. Any pole placed in violation of this requirement will be required to be moved to the appropriate location at the company's expense. Exceptions may be approved by the County Engineer.
3. All underground installations shall (these are minimum depths – utility may place deeper):
  - a. be placed at a minimum depth of forty-eight (48) inches below the top of the pavement;
  - b. be at least thirty-six (36) inches below ditch flow line when installation is within the area measured from top of bank to top of bank;
  - c. be at least forty-eight (48) inches below ditch flow line if low pressure gas or petroleum lines. For high pressure gas and petroleum lines, see High Pressure Pipelines requirements listed below;
  - d. not be closer than ten (10) feet from the edge of pavement. Exceptions may apply in rights of way of less than 60'.
4. Water Lines: All water lines must be a minimum of 36-inches below the ditch flow line. Waterlines parallel to the roadway less than 12" must be cased. All waterlines crossing under roadway are required to be cased. Exceptions may apply for casing requirements.
5. Utilities in all new developments that have 60 feet or greater of right of way shall be installed within designated locations based upon the type of utility. The locations shall be as follows: (measured from back of right-of-way).
  - Power – 0-2 feet, nominally 1'
  - Phone – 2-4 feet, nominally 3'
  - Gas – 4-6 feet, nominally 5'
  - Cable – 6-8 feet, nominally 7'
6. Utilities with less than 60 feet right-of-way in all new developments shall install the utility in a similar manner as referenced in No. 3 above. However, the County Engineer or its designated representative will provide final approval of each utility location.
7. The length of any trench to be opened in advance of the pipe, conduit or ducts may not be longer than 400' if left open over night or unattended.
8. Crossings under a county road shall:
  - a. be bored or jacked. **ABSOLUTELY NO OPEN CUTS WITHIN COUNTY ROAD PAVEMENT;**
  - b. be pressure grouted for the full length of the crossing **if** the annular space between pipe and casing and soil exceeds one (1) inch. Brazoria County must be given 24 hours notice of pressure grouting operations and have the opportunity to have an inspector on site to observe pressure grouting operations;
  - c. TxDOT Standard Specification Item 476 shall be followed for all boring, jacking, tunneling and joints.
9. Bore Pits
  - a. no pits shall remain open longer than 2 days;
  - b. all pits shall have proper traffic control measures in place. See Traffic Control Plan listed above.

- c. pits shall NOT be located within ten (10) feet from the edge of pavement without prior approval from the County Engineer or his representative;
  - d. when pits are to remain open for more than 8 hours, due diligence will be used in protecting the spoil pile to prevent drainage problems;
  - e. based upon soil conditions, the County Engineer or his representative may require shoring to protect pavement integrity;
  - f. based upon soil conditions, the County Engineer or his representative may require pits be placed further from the edge of road.
10. Any installation within ten (10) feet of edge of pavement shall meet the following:
- a. location must be approved by the County Engineer or his representative
  - b. backfilled with cement stabilized material.
  - c. based upon soil conditions, the County Engineer or his representative may require shoring to protect pavement integrity.
  - d. All excess water and mud shall be removed from the trench prior to backfilling. Any backfill placed during a rainy period or at other times where excess water cannot be prevented from entering the trench will be considered TEMPORARY and shall be replaced with PERMANENT cement stabilized material as soon as weather permits;
  - e. All disturbed base and pavement materials shall be removed and restored to the satisfaction of the County Engineer or his representatives.
  - f. No side or lateral tamping to fill voids under the base and pavement materials is allowed.
11. Company must be careful to not jeopardize the slope or integrity of the shoulder of the road. In the event Company damages the slope, shoulder or any other portion of the right-of-way, Company will be responsible for repairing the damage and replacing the right-of-way to the condition it was prior to commencing construction.
12. Operation of construction and/or maintenance equipment on the traveled surface of any improved County road will not be permitted, except in an instance whereby the laying, construction, maintenance and/or repair of cables, conduits and/or pole lines cannot be accomplished by any other method and in this event all such equipment shall be of the rubber tire variety. Appropriate traffic control shall be provided meeting TMUTCD requirements.
13. In the event said construction and/or maintenance and/or repair requires Company to remove, cut or jeopardize any section of the road (asphalt, cement, road base, etc), Company will be required to provide a performance bond or letter of credit securing necessary repairs. Said bond amount will be determined by the County Engineer.
14. The applicant shall submit a letter of “No Objection” from the Army Corps of Engineers for all designated wetlands and environmentally sensitive lands.

***E. Emergency work***

- 1. In the event Company is required to perform emergency services, that requires excavation in a County Right of Way, and unable to notify the County Engineer prior to conducting emergency repairs, Company shall notify County Engineer within 24 hours of beginning construction/repairs. This will allow the County Engineer’s Office an opportunity to inspect the site to ensure the integrity of the County Right of Way and traffic safety controls used.

***F. Repairs to existing facilities***

- 1. Maintenance and/or repair to existing cables, conduits, and/or pole lines which require disturbance of the soil, shall not be performed until plans describing such maintenance and/or repair have been approved by the County Engineer or its designated representative and a permit has been obtained.

**G. Relocation of utilities:**

1. When and if the County Engineer determines that it is necessary for the construction, repair, improvement, alteration or relocation of all or any portion of said road, any or all poles, wires, pipes, cables or other facilities and appurtenances authorized hereunder, shall be removed from said road, or reset or relocated thereon, as required by the County Engineer within a reasonable time as determined by the County Engineer and Utility Company, and at the expense of the Utility Company.

**H. High Pressure Pipelines**

1. All utility Permits for high pressure pipelines (generally 60 PSI or greater), whether pertaining to controlled access or non-controlled access installations, should contain the following additional information in the description of the permit.
  - diameter
  - wall thickness
  - material specification
  - minimum yield strength
  - maximum operation pressure of the pipeline
2. With the exception of the maximum operation pressure of the pipeline, this information is to be supplied for both the carrier pipe and the casing.
3. Assurance must also be given that the installation material and design meet the minimum Federal Safety Standards for Liquid and Gas Pipe Lines. Assurance must be provided on company letterhead and signed by an authorized representative of the company.
4. Petroleum Pipelines:

<b><u>Type of Pipeline</u></b>	<b><u>Depth (below deepest ditch grade)</u></b>	<b><u>Special Requirements</u></b>
Encased Pipe	*Less than 10'	Must be covered with a concrete pad at least 36" deep
Encased Pipe	Greater than 10'	No concrete pad required
Non-Cased Pipe	*Less than 10'	Must be covered with a concrete pad at least 48" deep
Non-Cased Pipe	Greater than 10'	No concrete pad required

\*Depths less than 10' below deepest ditch grade will only be allowed in cases of a hardship. Concrete pad shall be a minimum of 3" thick and width shall be pipe diameter plus 18" minimum.

5. Under no circumstances will a pipeline be installed parallel to a County Road within the Right-of-Way. (See Commissioners Court Order No. 20, dated September 9, 1981). Transmission lines have been determined to be petroleum pipelines (which includes natural gas lines) and shall not be parallel to a County Road.
6. Natural Gas Distribution is a line that serves the final customer.