



*Shell Pipeline Company LP
150 N. Dairy Ashford, WCK A0226
Houston, Texas 77079*

SHELL PIPELINE COMPANY LP

**GENERAL REQUIREMENTS FOR CROSSING SHELL PIPELINES
WITH PIPELINES/ROADS/UTILITY LINES**

We appreciate the opportunity to work with you and your company in the early planning stages of your development activity.

Working together and following our pipeline safety requirements will help:

- Protect the safety of your employees, the environment and the surrounding community.
- Reduce the risk of damage to our pipeline and related facilities.
- Ensure an adequate work area for future pipeline maintenance and/or repair work.
- Enable effective corrosion protection for our pipeline.
- Minimize any conflicts that may arise.

To assist in this effort, project scope along with construction drawings should be submitted to Shell for our comment/approval before any construction over or around our pipeline commences. This includes the design and construction of temporary roads or work pads where equipment is to operate or cross over the pipeline. Plans should include the three phone numbers listed in item #11 below and have a printed reminder to notify Shell at least 48-hours prior to commencement of work near the pipeline.

A SHELL REPRESENTATIVE WILL ERECT TEMPORARY FLAGS MARKING THE PIPELINE LOCATION AND SHALL BE PRESENT DURING ALL ACTIVE WORK PERIODS AS DEFINED IN ITEM #12 BELOW TO OBSERVE EXCAVATION OR OTHER CONSTRUCTION ACTIVITIES NEAR THE PIPELINE. ALL SHELL REPRESENTATIVE ASSOCIATED COST WILL BE REIMBURSED BY THE PROJECT OWNER AND/OR THEIR CONTRACTOR.

ANY WORK PERFORMED NEAR THE PIPELINE WITHOUT THE PRESENCE OF A SHELL REPRESENTATIVE WILL NECESSITATE THAT THE PIPELINE BE EXPOSED FOR INSPECTION AND NEEDED REPAIRS PERFORMED AT THE CONTRACTOR'S OR RESPONSIBLE PARTY'S COST.

DESIGN AND CONSTRUCTION

1. **ALL PIPELINES, UTILITY LINES and other underground facilities constructed across a Shell Pipeline Company LP ("Shell") owned or operated pipeline ("Shell Pipeline")** must be installed with a minimum vertical separation of 24 inches between structures. All facilities crossing a Shell pipeline shall be made of, or encased in, steel pipe with threaded or welded joints the entire width of Shell's right of way. Horizontal separations will be determined on a case-by-case basis. Electrical conduit and cables are excluded (please refer to paragraph 2). All work and cleanup will be conducted in a manner acceptable to Shell's on-site representative.
2. **ALL UNDERGROUND ELECTRICAL CABLES** shall be installed with a minimum vertical separation of 24 inches between structures with all plans, work and cleanup conducted in a manner acceptable to Shell's on-site representative. The electrical cable must be enclosed in conduit (steel or Schedule 80 PVC). It should be covered with red reinforced concrete with a minimum width of 6 inches on each side and above the conduit, for the entire width of Shell's right of way.
3. **ALL UNDERGROUND FIBER OPTIC CABLES** shall be installed with a minimum vertical separation of 24 inches between structures with all plans, work and cleanup conducted in a manner acceptable to Shell's on-site representative. Horizontal separations will be determined on a case-by-case basis. In addition, the fiber optic cable must be enclosed in conduit (steel or Schedule 80 PVC).
4. **ALL PROPOSED ROADS, STREETS, OR DRIVEWAYS** shall be constructed with a minimum cover of 48 inches, including the sub-grade, as measured from the top of the Shell pipeline to the bottom of the pavement (road, street, or driveway). If a Shell pipeline will require adjustment to accommodate a roadway, street or driveway crossing, the cost of any such lowering or relocation shall be borne by the party or parties requesting the adjustment. With each request involving roads, streets or driveways, Shell will reserve the right to excavate to expose and inspect its pipeline(s) to determine the need for pipe replacement, full encasement, or heavy wall pipe. The cost of this activity will be at the expense of the requesting party.

PIPELINE MINIMUM COVER REQUIREMENTS

1. 48 inches from bottom of pavement under a road, street, or driveway.
2. 36 inches under all other surfaces within the right of way.

General Requirements for crossing Shell's Pipelines

5. **ALL ROAD DITCH AND DRAINAGE CANAL/DITCH** crossings shall be constructed with a minimum cover, and measured from the lowest point in road bar ditch, to the top of pipe, as follows:

1. Concrete lined – 12 inches.
2. Unlined – 36 inches.

Any drainage canals shall be constructed with a minimum of 60 inches of cover below the ultimate flow line.

6. **ALL PAVING** (other than for road, driveway or street crossings of a Shell pipeline, e.g., parking lot) to be constructed over a Shell pipeline shall (a) be reinforced, (b) not exceed 4 inches in thickness, (c) be sectioned in 10 foot by 15 foot panels (15' dimension shall be perpendicular to the pipeline) with appropriate expansion joints, (d) contain lifting rings, and (e) conform to the minimum cover requirements stipulated above.

Shell shall have the right to cut and remove any pavement or other surface structures now or hereafter located over or across a Shell pipeline, without any obligation to repair, replace, resurface or dispose of removed material, for the purpose of exercising any rights granted to Shell under the pipeline rights of way and easements.

7. **TEMPORARY (HAUL) ROAD** crossings shall be constructed with a minimum ground cover (as measured from the surface of the road to the top of the pipeline) of five (5) feet. A temporary earthen berm may be constructed to meet this requirement. Where it is necessary for heavy equipment to cross the pipeline, additional measures may be needed to effectively distribute the weight of such equipment, for example, installing additional cover, timber matting and/or a temporary bridge for passage over the pipeline.
8. **LAKES OR OTHER BODIES OF WATER** shall not be constructed over the pipeline or within the boundaries of the pipeline easement. Additionally, the surface cannot be developed or changed in any way that would cause rainwater or runoff to collect on the pipeline right-of-way.
9. **DIRECTIONAL DRILLING OR BORING** shall require additional damage prevention measures, whether installing a crossing or otherwise conducting such operations within twenty (20) feet of the pipeline. It is Shell's option whether peepholes or sheet piling be installed to an elevation lower than the pipeline, before drilling/boring to help ensure its protection. Shell requires continuous tracking of the drilling head as well as using a physical technique (such as probing) to ascertain the exact location of the head before it crosses the Shell

pipeline. Shell may also require that the pipeline be exposed when near drill/bore entry or exit points.

10. If Shell determines it is necessary to lower, encase or otherwise adjust a Shell pipeline because of the landowner's (developer, etc.) construction activity, the landowner or developer shall reimburse Shell for the cost of lowering, encasement or other adjustment.

COMMUNICATION AND ADDITIONAL REQUIREMENTS

11. Please notify **Mr. James Lawrence, ROW Supervisor, at (832) 337-6056, of Shell's Maintenance Department in Pasadena, Texas** at least 48 hours prior to commencing any excavating or construction activity in the vicinity of any Shell pipeline. Excavators are required by law to contact the appropriate One-Call Center for their state prior to commencing excavation or other such construction activity, which may impact an underground facility.

For State of Texas, call the One-Call Notification Center, at 811

If you are unable to contact the above Shell representative, contact the Pipeline Control Center, and the information will be relayed.

Pipeline Control Center
24 Hours
1-800-852-3602

12. No excavating or other construction activity that could impact the pipeline (e.g., directional drilling, boring, sheet piling, setting trench boxes, etc.) shall be conducted within ten (10) feet of any Shell pipeline in the absence of a Shell representative. Notice shall be given to Shell at least forty-eight (48) hours prior to commencing each occurrence of construction activity within ten (10) feet of any Shell pipeline.
13. Any contractor, developer, etc., planning blasting operations within 500 feet of any Shell Pipeline shall submit a blasting plan to Shell for approval. This plan will include hole depth, diameter, spacing, burden, delay times, maximum charge weight per delay, sequence, explosive type and blast zone location relative to the Shell pipeline. Under NO circumstances will blasting or seismic shot holes be allowed within one hundred (100) feet of any Shell pipeline.

General Requirements for crossing Shell's Pipelines

- 14. No signs, monuments, building, structures, manholes, shrubbery, or trees shall be located within a Shell right of way and easement area so that the pipeline can be maintained without damaging these structures or being impeded by them.**
- 15. No excavations shall be made on land adjacent to any Shell pipeline which will in any way impair, withdraw lateral support, cause subsidence, create the accumulation of water, or cause damage to the Shell pipeline or right of way.**
- 16. No fence shall be placed across a Shell right of way without written permission from Shell. If fences are permitted, 14-foot gates must be installed on the right of way.**
- 17. Side cutters shall be removed from the bucket of excavation equipment, and a bar shall be installed across the teeth during excavation in the vicinity of any Shell Pipeline.**
- 18. No paving is to be placed over any Shell right of way without written permission from Shell.**
- 19. Any damage to existing Shell Pipeline markers and/or signs, test leads, vent pipes, fences, gates and/or any other associated pipeline apparatus resulting from any construction operations shall be repaired to Shell's satisfaction or replaced at the sole cost and expense by the damaging party within 15 days after the damage has occurred.**
- 20. All written requests should be supported with plans and forwarded to:**

Shell Pipeline Company LP

ATTN: Clarinda Maldonado – Encroachment Specialist

Phone: 1-800-438-7752

SPLC-Encroachments@shell.com

**Physical 150 N. Dairy Ashford
 WCK A0226
Address: Houston, TX 77079**