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Si quiere solicitar servicios de traducción o adaptaciones para la discapacidad, contáctenos en/al **DTDcompliance@clackamas.us** | **503-742-4400**.

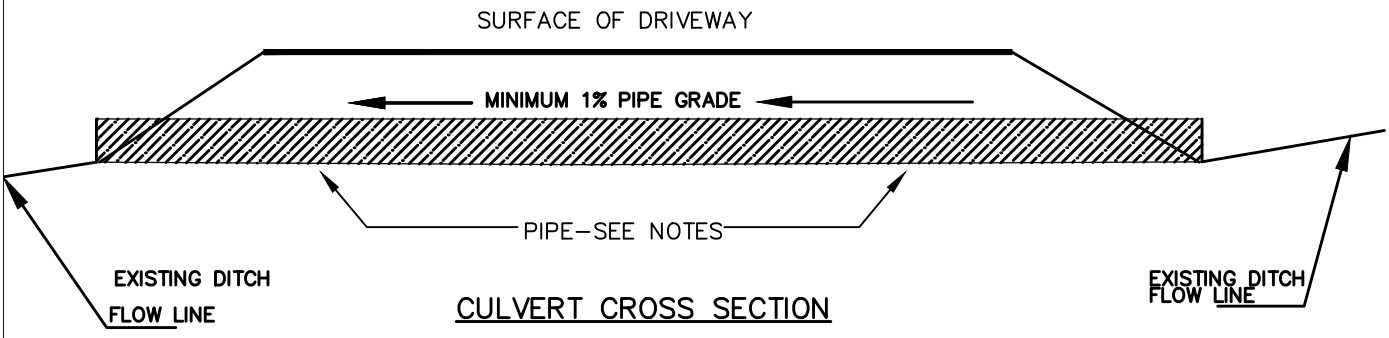
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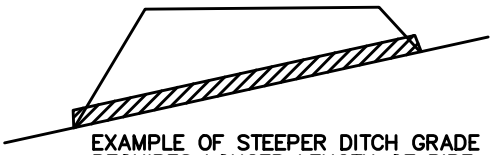
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Clackamas County
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CULVERT CROSS SECTION



EXAMPLE OF STEEPER DITCH GRADE REQUIRES LONGER LENGTH OF PIPE AND MORE FILL

NOTES

1. HDPE IS ADEQUATE FOR DITCHES 2' OR DEEPER.
2. DUCTILE IRON OR REINFORCED CONCRETE PIPE SHALL BE USED WHEN DITCHES ARE LESS THAN 2' DEEP.
3. EXCEPT WHEN CONDITIONED FOR LARGER DIAMETER PIPE, THE MINIMUM PIPE SIZE SHALL BE 12" INSIDE DIAMETER AND 20 FEET IN LENGTH.
4. SPECIFICATIONS FOR MATERIALS USED IN CONSTRUCTION SHALL CONFORM TO CURRENT ODOT/APWA STANDARD SPECIFICATIONS.
5. FILL OVER CULVERTS SHALL NOT BE ALLOWED TO BLOCK OR INHIBIT THE FLOW LINE OF THE DITCH.
6. PIPE SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS TO SUPPORT A 79,000 LB FIRE APPARATUS VEHICLE.
7. REFER TO SECTION 440.1.1 OF THESE ROADWAY STANDARDS FOR ACCEPTABLE PIPE MATERIAL.. PVC IS NOT ALLOWED FOR USE AS A DRIVEWAY OR ROAD CULVERT UNLESS IT HAS A STRUCTURE AT BOTH ENDS, E.G. CATCH BASIN OR MANHOLE. CORRIGATED METAL PIPE IS NOT ALLOWED.
8. PIPES AND DITCHES EXCEEDING 4% FLOW LINES SHALL PROVIDE A 5'x5'x12" DEEP CLASS 50 RIP–RAP PAD AT PIPE OUTLET.
9. PIPES SHALL PROVIDE A MINIMUM 1% POSITIVE FLOW, BE INSTALLED AT THE SAME GRADE AS THE EXISTING DITCH, MAINTAINING THE FLOW LINE OF THE EXISTING DITCH.

REVISION	DATE	BY
REV 1	11/19	BP

DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

150 BEAVERCREEK ROAD
OREGON CITY, OR 97045

CLACKAMAS COUNTY

APPROVAL DATE: 6/1/2020 SCALE: N.T.S.

TYPICAL PLAN FOR DRIVEWAY CULVERT INSTALLATION

STANDARD DRAWING

D250