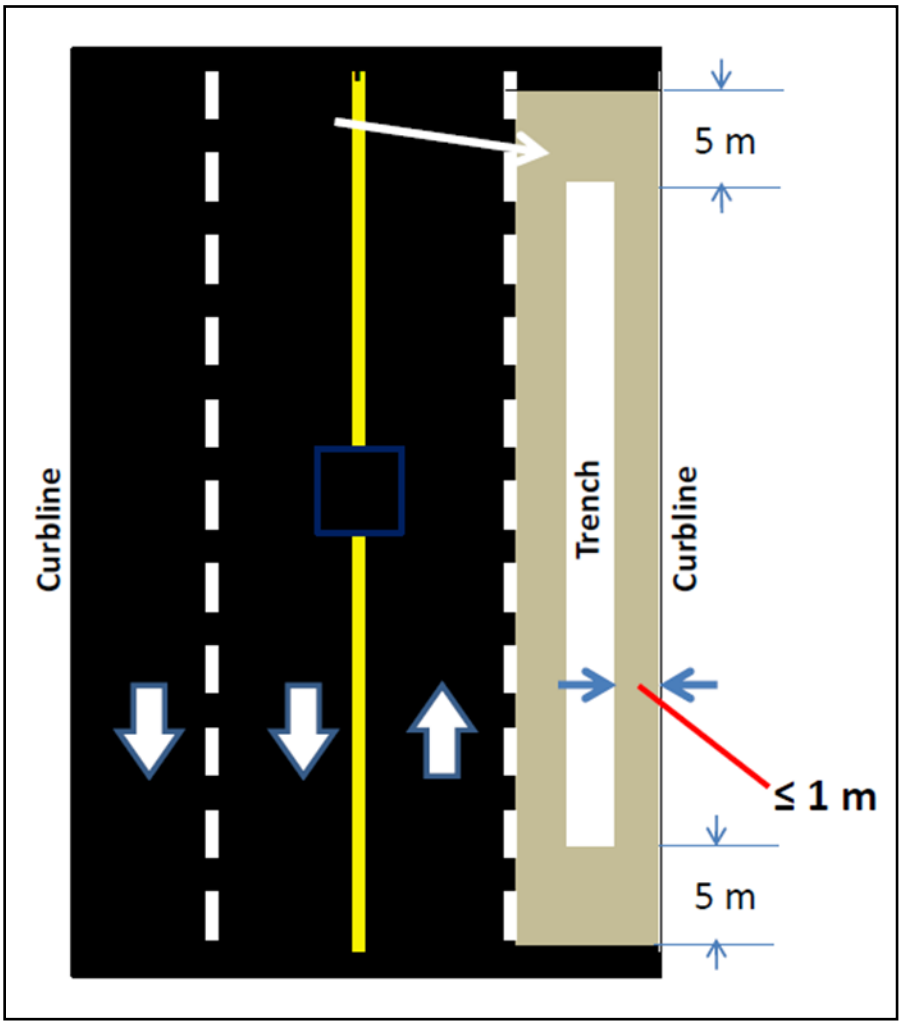
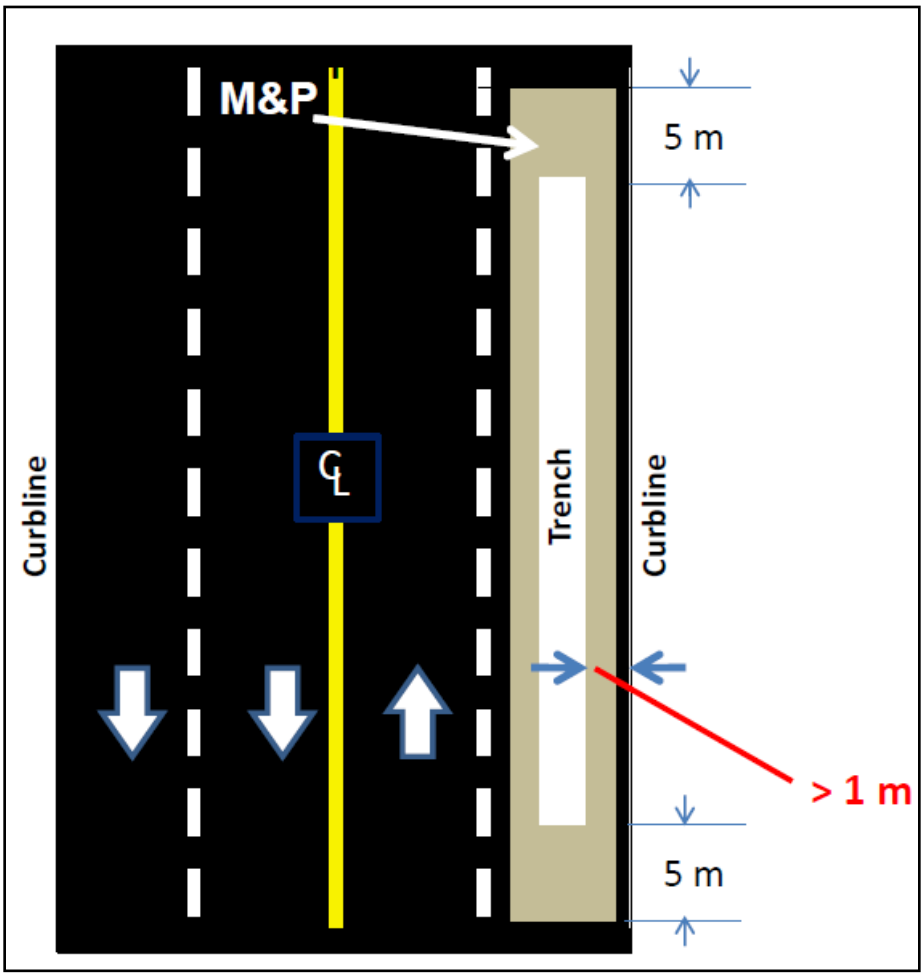
Appendix W – Extent of Repairs for Various Types of Utility Cuts

Scenario #1: Trench located 1 m or less from curb line or construction joint



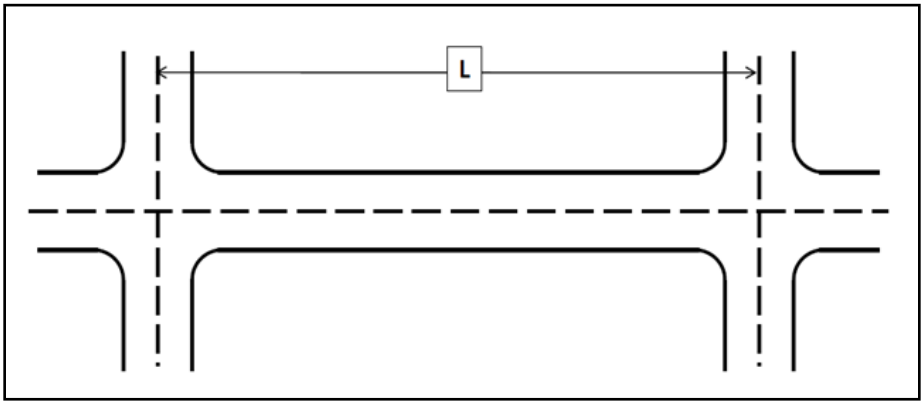
- Permanent repair of utility cut shall include removal and repair of portion of pavement between trench and curb or construction joint.
- Permanent repair of utility cut that is close to the wheel path shall include the wheel path as well.
- Milling and paving lane width, allowing 5 metres on each end of permanently repaired trench, as shown.
- Milling and paving minimum width 3.0 m and minimum milling 40 mm.

Scenario #2: Trench located > 1 m from curb line or construction joint



- Permanent repair of utility cut shall include removal and repair of portion of pavement affected by the cut. For details, refer to MCR and TS 4.60.
- Milling and paving the lane width, or at least 3 metres wide strip within the lane, allowing 5 metres on each end of permanently repaired trench.
- Milling and paving minimum width 3.0 m and minimum milling 40 mm.

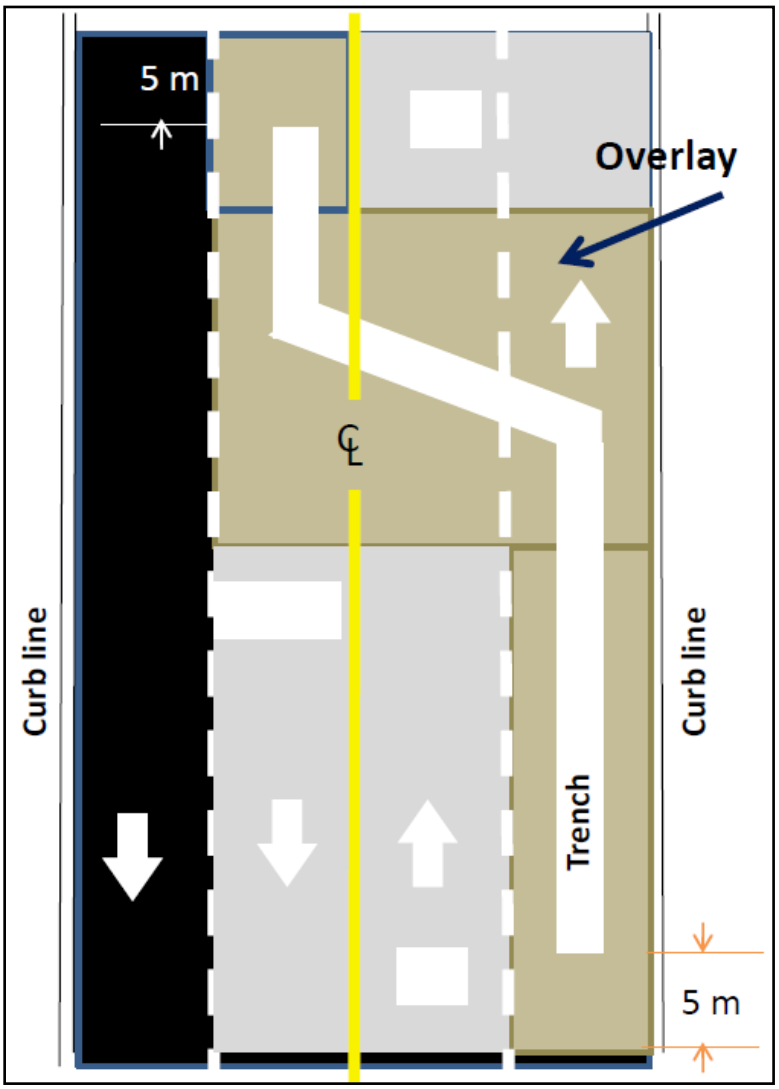
Scenario #3: Trench located between the blocks



Milling and paving is required as below.

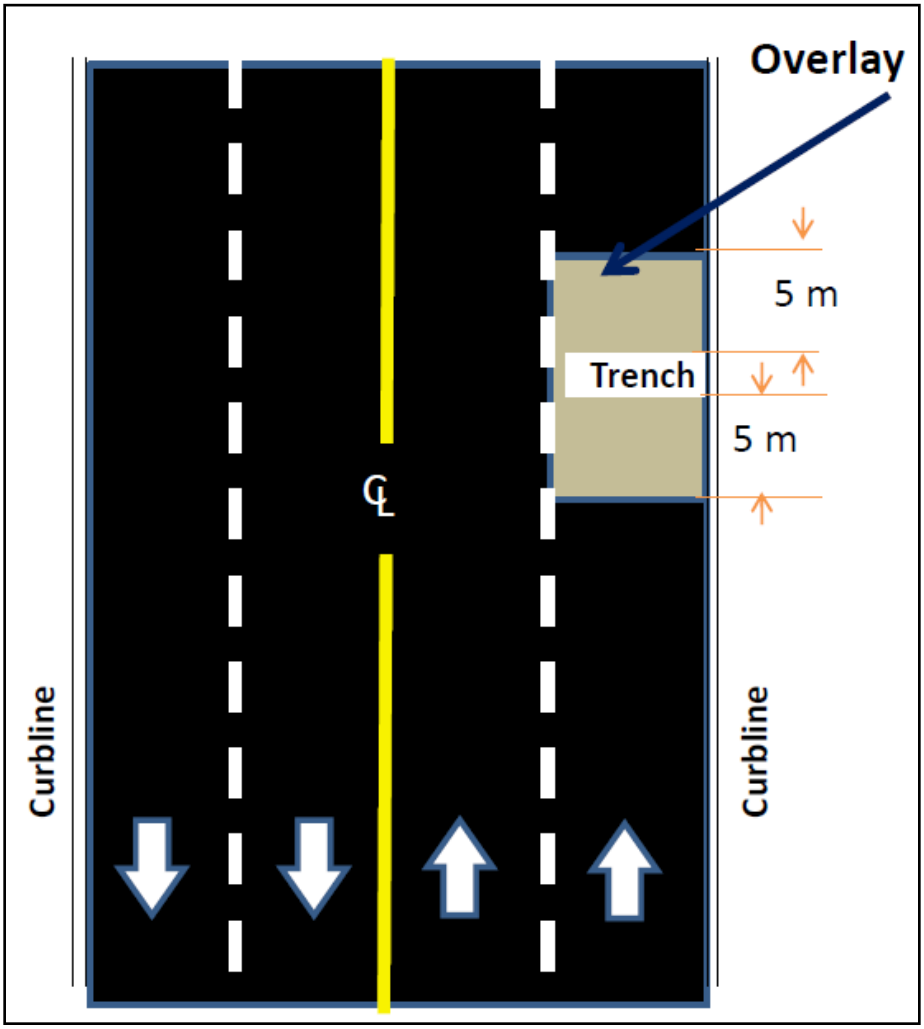
Block Length	Extend of Damage	Outcome
Length (L) > 250 m	75% length trenched	Full milling and paving
Length (L) ≤ 250 m	60% length trenched	Full milling and paving

Scenario #4: Trench located > 1 m from curb line or construction joint



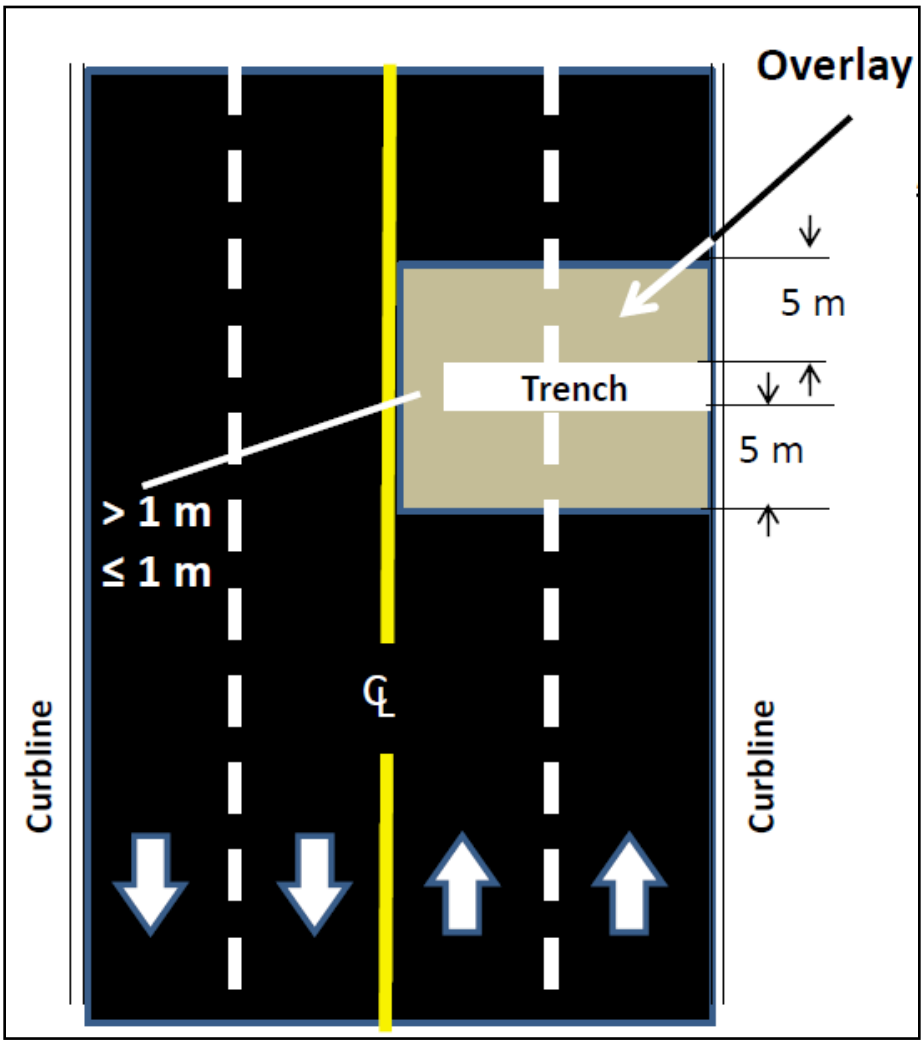
- Milling and paving shown as taupe coloured area will be undertaken and expensed to utility owner.
- If in the opinion of the utility cut examiner, the pavement area high-lighted in grey has sufficient deterioration that warrants milling and paving, then it will be funded through Pavement Degradation Fees (PDF) reserves.
- Milling and paving minimum width 3.0 m and minimum milling 40 mm.

Scenario #5: A single transverse cut contained within one lane



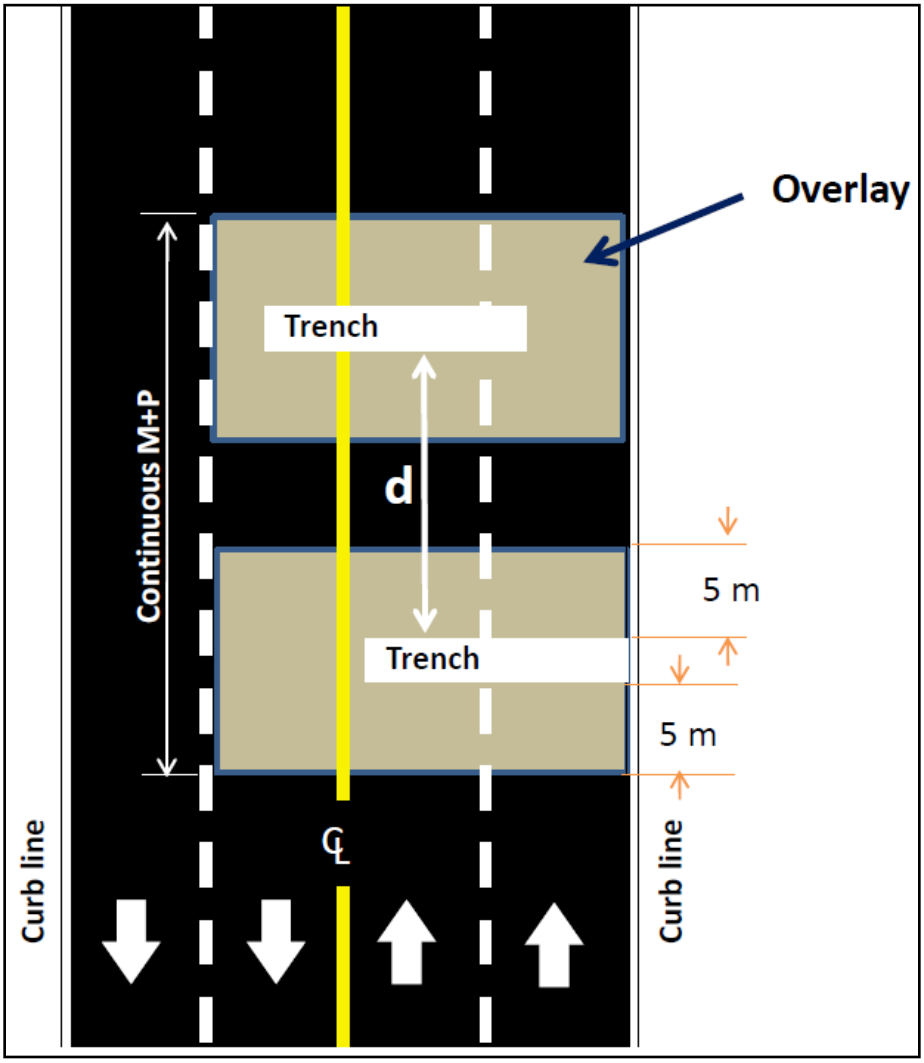
- Permanent repair of utility cut will include removal and repair of portion of pavement affected by the cut.
- Milling and paving 3 metres wide strip within the lane, allowing 5 metres on each end of permanently repaired trench.
- Milling and Paving minimum width 3.0 m and minimum milling 40 mm.

Scenario #6: A single transverse cut extending to more than one lane



- Permanent repair of utility cut will include removal and repair of portion of pavement affected by the utility cut as long as the trench is greater than one metre from a construction joint; otherwise, if the distance is less than or equal to one metre, the trench will be repaired from curb to joint.
- If the transverse cut extends into a second lane, both lanes will be milled and paved, allowing 5 metres on each side.
- Milling and paving minimum width 3.0 m and minimum milling 40 mm.

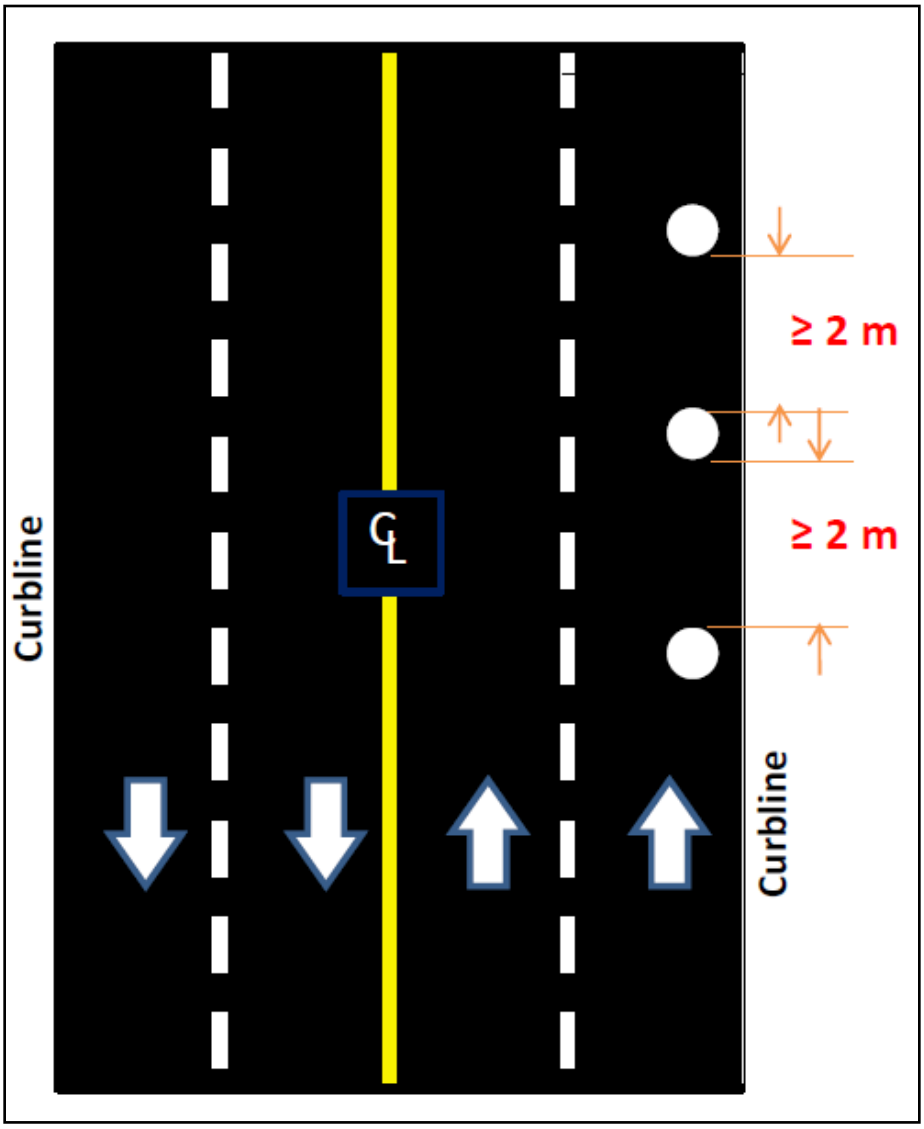
Scenario #7: Multiple transverse cuts



- If d is ≤ 12 m, continuous milling and paving
- If d is > 12 m, separate milling and paving

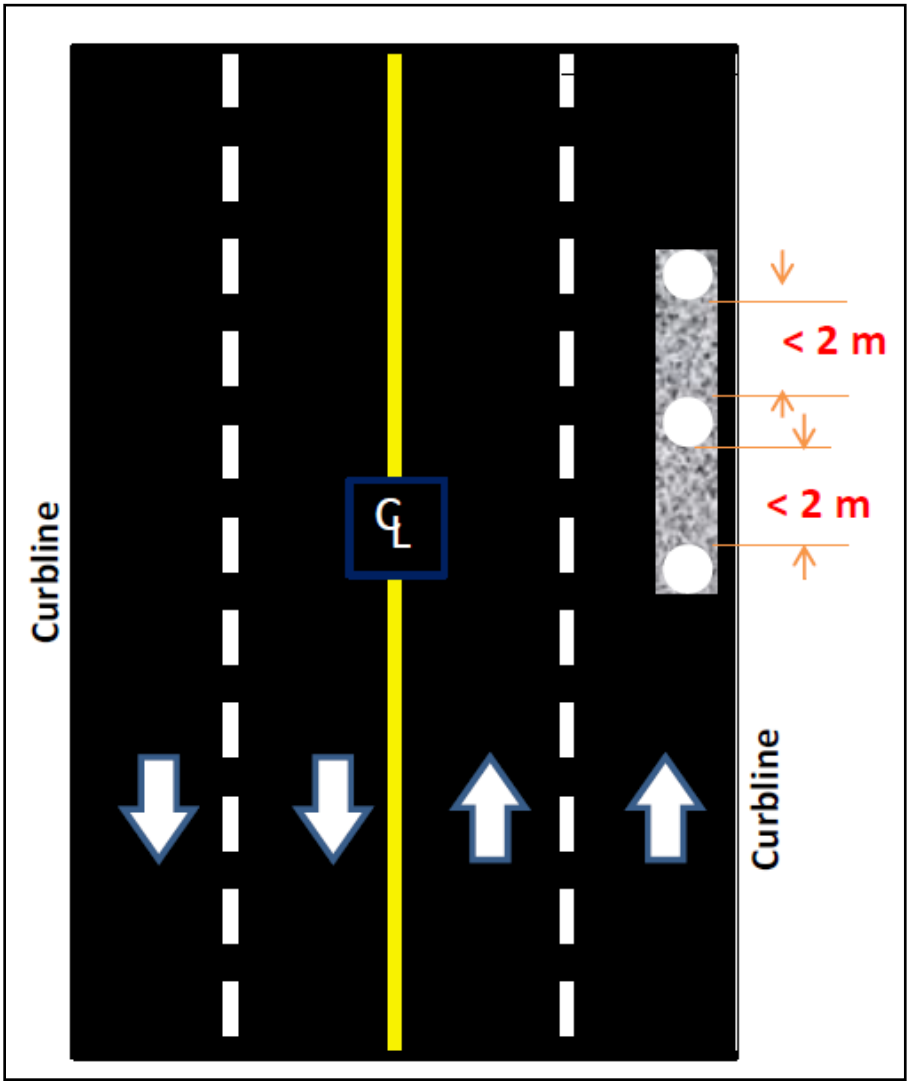
- In both situations, allow for 5 metres on either side as shown
- Milling and paving minimum width 3.0 m and minimum milling 40 mm.

Scenario #8: Keyhole cores are > 2 m apart, edge to edge



- Since keyhole cores are sparsely separated, treat them as separate entities; PDF is charged according to the area of each.
- If some keyhole cores are showing signs of distress, then treat them as needing permanent repairs; refer to TS 4.70 for guidance.
- Milling and paving minimum width 3.0 m and minimum milling 40 mm.

Scenario #9: Keyhole cores are ≤2 m apart, edge to edge



- Since keyhole cores are densely located, treat them as a trench in both repairs and PDF charges
- In permanent repair, excavate a trench enveloping all the keyholes and fix according to the rules and guidelines for trench repair discussed earlier.
- Milling and Paving minimum width 3.0 m and minimum milling 40 mm.

Calculation for PDF

Pavement Degradation Fees (PDF) are kept in separate account and will be used for road repairs only—approved by Toronto City Council in March 2010.

PDF will be calculated based on the repair area (Length – L and Width-W) as provided by the utility companied/vendors and as verified by the Transportation Services.

PDF is calculated as fees/m2 of the cut repair area (L×W m2).