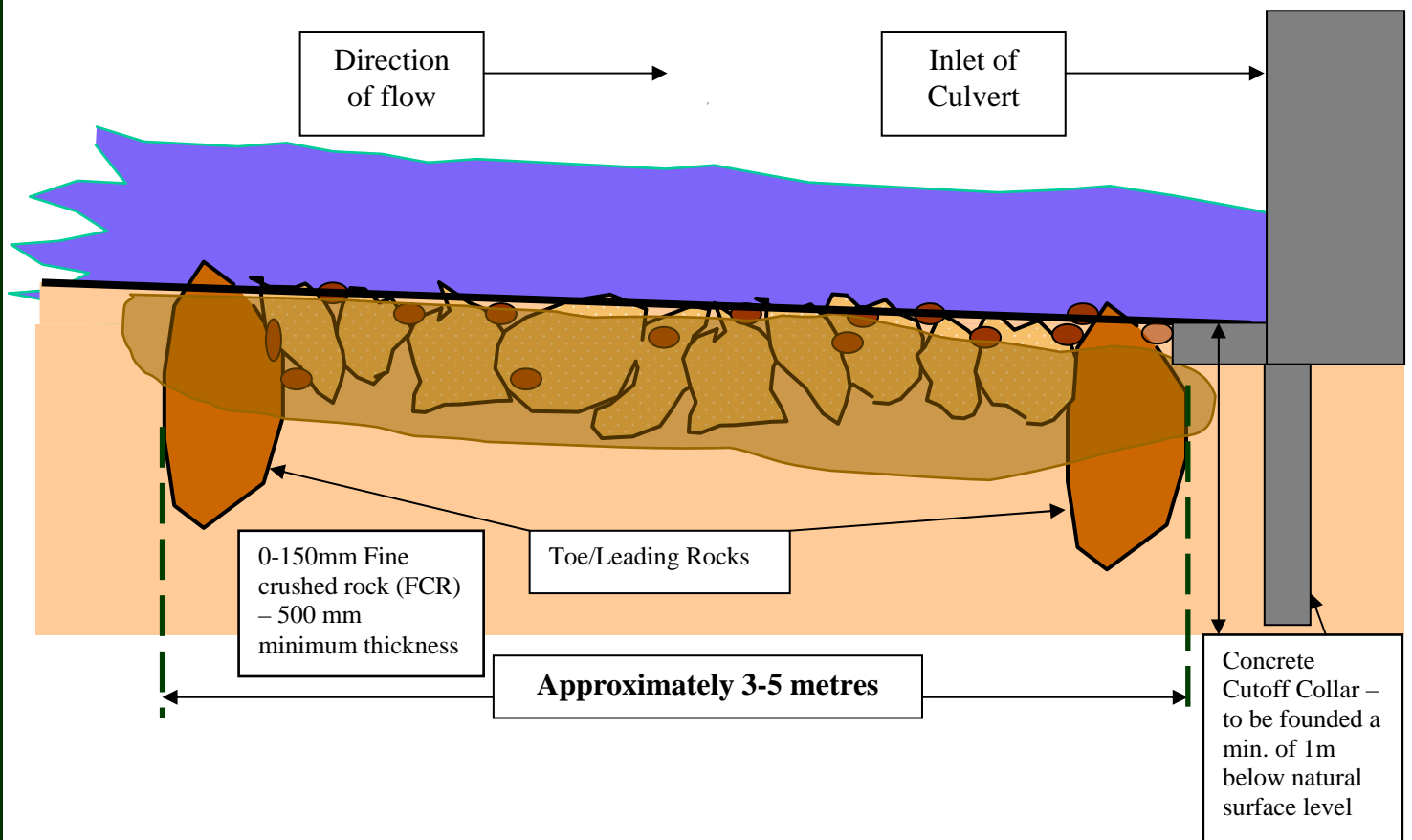


# Rockwork and Rip Rap Detail: Small – Medium Watercourse Culvert Crossing

Cross Section of Rock Work Detail – To be performed **upstream and downstream** of culvert crossing



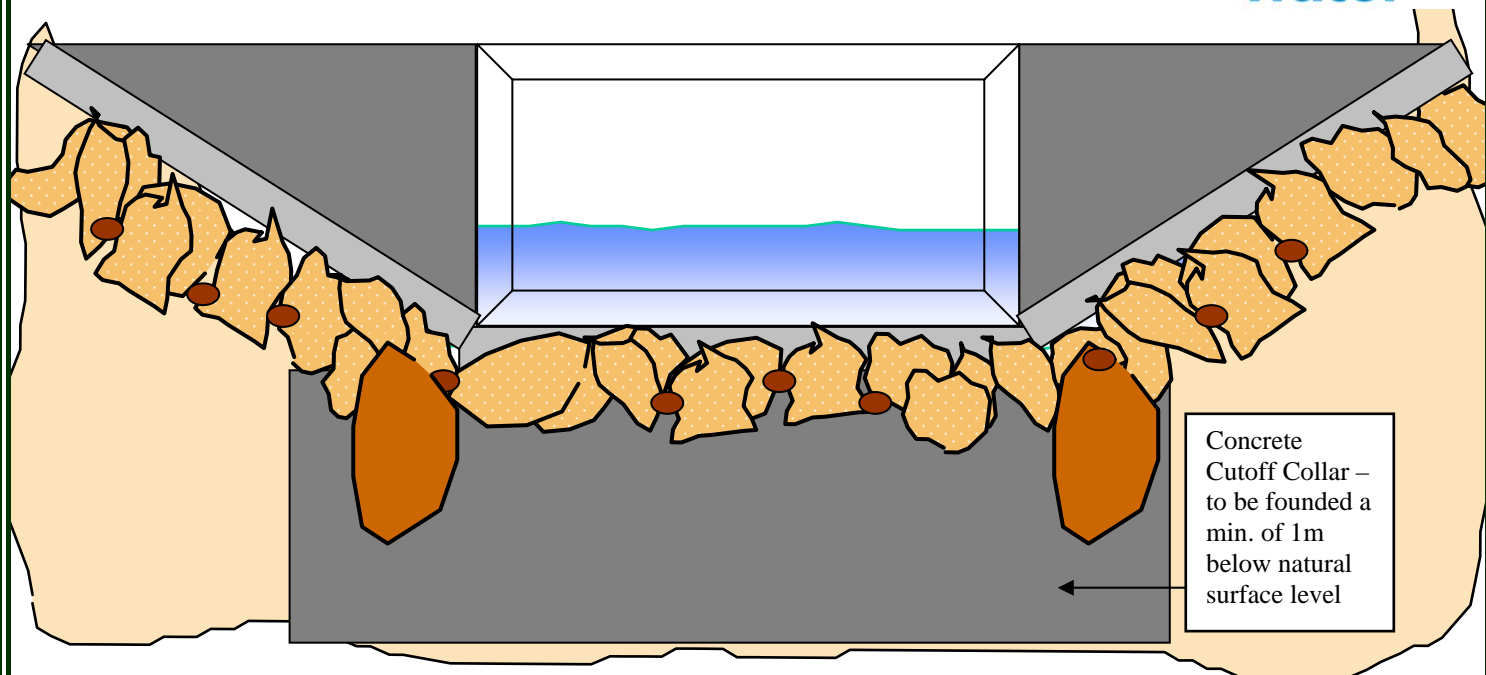
## Notes on Rockwork

- All rocks must be keyed into the undisturbed natural bed of the creek to two-thirds diameter.
- All voids shall be filled with smaller rocks.
- Appropriate silt/debris control measures must be installed
- Excavate/box out to enable toe and perimeter rocks to be placed first.
- Infill the chute with rock spalls.
- The contractor shall use methods for handling and placement of rock that will avoid segregation of rock size fractions. Rock shall be carefully placed into position. Rock shall not be dumped directly.
- It is imperative that rock spalls used to form the rock chute are well graded with minimal voids to produce a blanket of interlocking rock.
- Rock chutes shall be shaped in the vertical & horizontal planes such that flows are directed to the centreline of the creek ie the existing upstream & downstream IL' of creek are aligned.

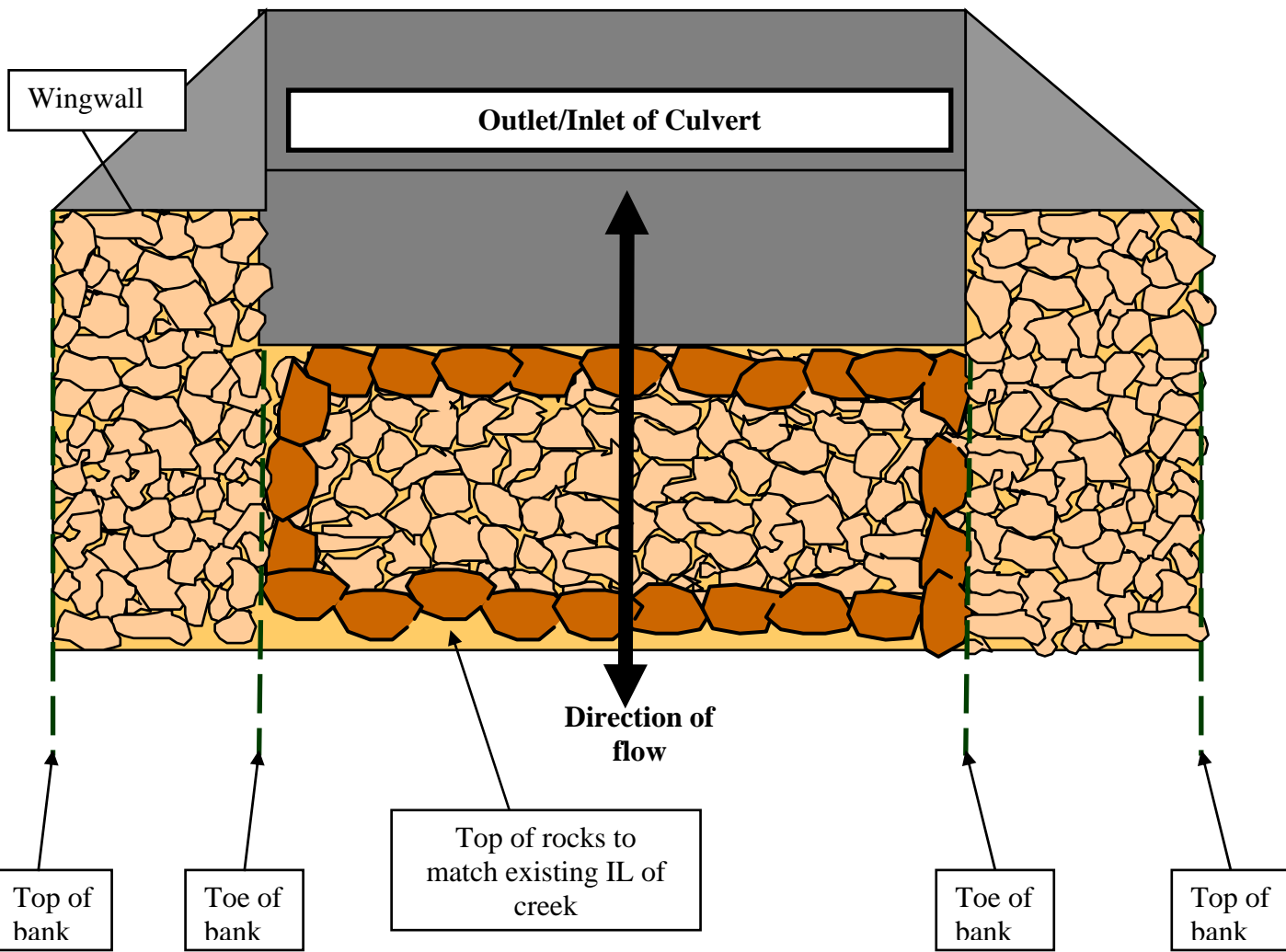
Not to scale – to be used as a guide only



Cross Section of Culvert and Rock Work Detail



Concrete Cutoff Collar – to be founded a min. of 1m below natural surface level



Wingwall

Outlet/Inlet of Culvert

Direction of flow

Top of bank

Toe of bank

Top of rocks to match existing IL of creek

Toe of bank

Top of bank

Not to scale – to be used as a guide only