

# Design of Westminster Drive and Woodhaven Park Drive Improvements

## Woodhaven Park Drive Storm Drainage Maps

Managing the flows from a major (100-year) storm event is an important design criterion for the Woodhaven Park Drive project.

### Existing Conditions

Under existing conditions, runoff from a 100-year event would not be contained within the ditch system, and flooding of private property along Woodhaven Park Drive and Willowdown Road (rear yards) would occur. The thinner orange lines in Exhibit D-1, below, illustrate where Coronation Park EA identified that flows would not be contained within the ditch system in a 100-year storm. Willowdown Road and a portion of Hixon Street are part of the drainage system being addressed through the Woodhaven Park Drive project.

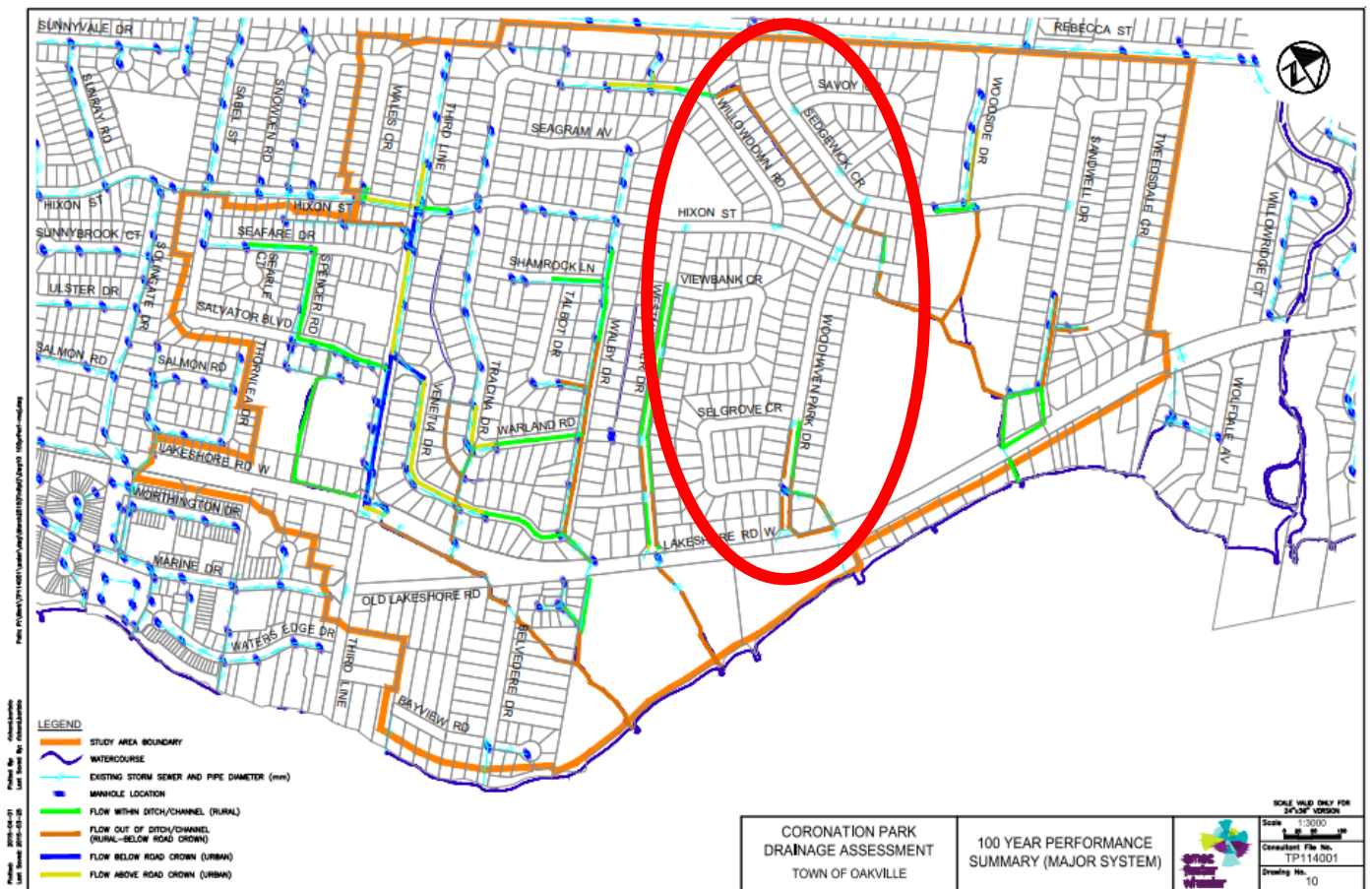


Exhibit D-1 – existing condition flood limit in a 100-year storm – Coronation Park EA

### Future Conditions

The Coronation Park EA recommended that the drainage infrastructure on Woodhaven Park Drive include roadside ditches with ditch inlet catchbasins, and a storm sewer. Exhibit D-2 (taken from the Coronation Park EA) shows the major drainage system performance, with these improvements in place for a 100-year storm.

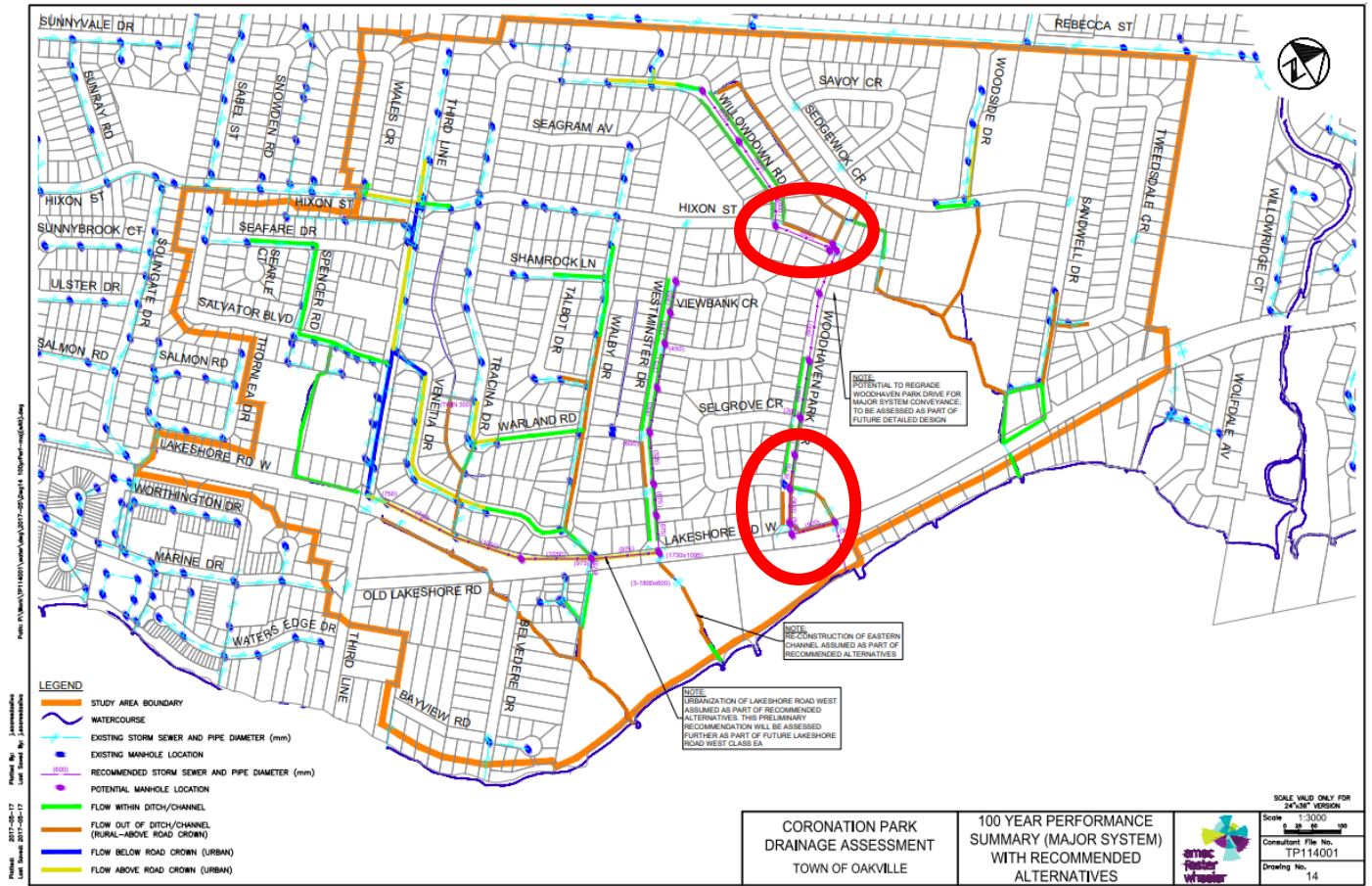


Exhibit D-2 – Coronation Park EA mapping of major system performance in a 100-year storm of the EA Preferred Alternative

The majority of storm drainage on Woodhaven Park Drive would be captured and conveyed by the ditches and storm sewer in a 100-year storm, but there would be an area, shown by the thin orange line, where flows will not be contained within the ditch and could impact private property.

**Conclusion**

Modeling and design work on Woodhaven Park Drive has not progressed as far as it has on Westminster Drive. The modeling conducted for the EA for a cross-section that includes a storm sewer and roadside ditches, shows that there will be some risk that stormwater will not be contained within the ditch system during a 100-year storms. Storm drainage that cannot be accommodated in the storm sewer or ditch will flow towards private property.

A cross-section that includes curb and gutter provides additional above ground stormwater storage capacity, between the curbs on the road, in the event of an extreme storm. Modeling has not yet been completed for the design option that includes a storm sewer with curb and gutter. This cross-section would facilitate the future construction of a sidewalk, if required, on Woodhaven Park Drive.