

# Capri-Landmark Urban Centre Plan

## Transportation Technical Review Summary

### Context

The Urban Centre Roadmap (UCR), adopted in 2016, provides a framework to support the evolution of Kelowna's five Urban Centres into engines of sustainable growth. The Roadmap outlines challenges and opportunities within each centre while defining overall principles and targets. Centres are envisioned as vibrant, urban and amenity-rich nodes of dense employment, services and housing with good access to sustainable transportation. The development of urban centres will help Kelowna create attractive urban spaces to live, work and play while supporting community goals of reducing urban sprawl, greenhouse gas emissions and personal vehicle use. The Capri Landmark Urban Centre Plan (CLUCP) is the first in a series of plans that will help refine the specific planning, investment and development actions required to advance each urban centre.

Maintaining a safe, efficient and effective sustainable transportation system will be a challenge for all urban centres as they grow. As urban spaces, the demand for travel will be high while at the same time space available for transportation infrastructure will be at a premium. The UCR recognizes that success will require a mix of land uses to encourage shorter trips that are more convenient by walking, cycling, or transit; increasing the number of trips that stay within centres, while sustainable transportation options will reduce the impacts of trips both within and beyond centres. As part of the CLUCP, this memo provides a summary of existing transportation issues, strategies and network options being considered as part of the Capri-Landmark Urban Centre Plan.

### Existing Conditions

The following reported and observed transportation challenges within the Capri-Landmark Urban Centre have formed a starting point for the Urban Centre Plan transportation analysis.

Specific to Capri Landmark, the UCR identified four transportation challenges to be addressed, including a discontinuous street network, the lack of sidewalks and street trees, large block sizes, and a lack of pedestrian crossings on major roads.

Through the CLUCP public engagement, residents, stakeholders and workers identified their key concerns, including;

- a need for improved walkability,
- improved cycling access and facilities,

- improved transit / bus frequency, and
- road improvements to address access and traffic congestion within the Landmark area.

Site visits and traffic video data provided additional observations of specific issues. Typical morning and evening traffic peaks were observed with a smaller peak during the lunch period. Capri Landmark is centrally located and adjacent to major roads, allowing for excellent vehicle access at most times of the day. However, during the afternoon rush congestion occurs within the Landmark area due to the concentration of employment land uses (specifically office), resulting in workers leaving over a short period of time and attempting to access the surrounding major roads via a limited number of local streets.

Specific operational issues were observed at;

- **Burtch / Dickson** - Extended queues exist on Dickson from approximately 4-5:00 pm as office workers exit parkades on Dickson and access Burtch to head north and west. – periodic queuing was also observed during other periods but cleared quickly. The short distance between the Burtch / Dickson and Burtch / Sutherland intersections and queuing makes exiting onto Burtch from Dickson more difficult.
- **Burtch / Sutherland** – Southbound traffic experiences minor queuing, with a clear morning peak while in the northbound direction traffic spills back from the Harvey intersection during the evening peak.
- **Burtch / Harvey** – The northbound Burtch queue spills back from Harvey into the Sutherland / Dickson intersections throughout the PM peak hour – contributing to operational issues in those intersections. Queues are exaggerated by a long signal cycle length which favors east-west traffic on Harvey Ave / Hwy 97. Minor queuing was observed during lunch but cleared quickly.
- **Kirschner / Harvey** – One of two access routes from Landmark to the east; queues form due to limited gaps in traffic on Harvey and queue spillback from Spall.
- **Dayton / Springfield** – Provides access to Springfield Rd, queueing observed during the busiest portions of the afternoon peak and recent laning changes have reduced congestion.

The lack of an internal east-west street network within the Landmark area forces traffic to use Springfield Rd and Harvey Ave, or informal connections through parking lots for short internal trips within the area - consuming capacity and increasing congestion on the surrounding major corridors. It also results in many trips having one or two access points onto the surrounding major road network, increasing congestion and reducing the redundancy in the road network. In the Capri area, a lack of north-south connections results in traffic using Lindahl Street to travel north-south between Sutherland and Springfield.

Within the Landmark area, most streets lack defined on-street parking, cycling facilities, curbs or sidewalks, making walking and cycling difficult and resulting informal parking along roadway edges. In some cases, pedestrians are forced to walk within the roadway beside parked cars and a lack of basic walking facilities makes it difficult for transit riders to access bus stops.

While cyclists and pedestrians have access to the Dayton Street Overpass – reaching this link can be challenging. Transit currently routes around the edges of the Landmark area due to a lack of a strong east-west road network.

As part of the City-wide DCC Roads / Active Transportation Program Bylaw a number of improvement projects are planned within the Capri-Landmark Urban Centre area over the next 15 years, including;

- 1) The addition of a second northbound lane and median improvements on Burtch Rd between Sutherland and Harvey Ave. (Burtch 4 – with development)
- 2) Intersection capacity improvements at Highway 97 and Gordon Dr including upgrades along Gordon between Bernard and Sutherland. (Highway Link @ Gordon)
- 3) Sutherland ATC Gordon to Burtch – Protected bike lanes along this corridor with improved safety measures at major intersections

It is important to note that these works have been identified as part of the DCC program and are to accommodate general City growth and do not resolve the issues identified within the Capri-Landmark Urban Centre. The currently planned Sutherland ATC will connect to the City of Kelowna Primary Active Transportation Network.

In summary, the study area is surrounded by some of the City's largest transportation corridors, including Harvey Ave, Springfield Rd, Burtch Rd, Spall Rd and Gordon Dr. These routes benefit the urban centre by providing direct access to the major road network, however, during the afternoon, they experience congestion and can be difficult to access from side streets. Within the Capri area, the existing street network generally works well, but a lack of north-south routes results in the use of local connections such as Brookside-Lindahl to travel north-south. In the Landmark area, concentrations of office development generate strong peaks in vehicle traffic as workers leave at the end of the day. The departure of this peak demand is compounded by a lack of east-west streets, restricting departing traffic to a few routes and leading to congestion approaching adjacent major roads. Sustainable transportation options, such as the nearby Sutherland Active Transportation Corridor and rapid/frequent transit routes (97,11,8,7) are less effective because they don't directly pass through the Urban Centre and a lack of sidewalks and bike lanes within the urban centre makes reaching nearby transit and active transportation corridors more difficult.

## Strategies for Improvement

To support the future growth of the Capri Landmark Urban Centre the following strategies have been considered as part of the CLCUP. These strategies are designed to improve the existing transportation network, improve transportation choice and reduce future travel demand.

Landuse - Select future land uses that do not mimic the travel patterns of existing office development. Growth of residential and other commercial uses would allow growth to occur with a smaller impact on peak travel times / directions. Encourage a diverse range of land uses

so future residents can access more services and employment by short trips within the Urban Centre. These short trips can be better accommodated by walking and cycling, reducing future vehicle demand.

**Sutherland Extension** – The realignment of Sutherland Ave at Burtch Rd and extension of Sutherland to the south-east would remove the short block and associated operational issues between Dixon and Sutherland while providing Landmark direct access to the Burtch/Sutherland intersection. Through the Landmark area, an extended Sutherland Ave would eventually connect to Spall Rd creating a strong east-west corridor. This new connection will encourage local trips to stay within the local street network, improve access to surrounding major roads including Spall Rd and create a street to facilitate an active transportation corridor and transit within the urban centre core. The Sutherland extension would be part of the major road network, but should be developed to strongly accommodate pedestrians, cyclists and transit users, particularly through the densest areas of Landmark and Capri.

**A Strong Pedestrian Network** – In dense urban centres walking will be the dominate mode of transportation for short trips. Encouraging walking will require creating a safe, efficient and effect walking network. In Landmark, many streets lack any walking facilities and recent pedestrian improvements are utilitarian often focused on linking individual buildings versus developing a larger walking network. Streetscapes should make walking comfortable by including boulevards and street trees to buffer pedestrians from traffic and enhanced crossings to make it easier/safer to cross streets, particularly major roads. Block and development patterns should create an efficient walking network by using small blocks and pedestrian walkways through development sites.

**Active Transportation Corridors** – Expanding from the existing Dayton Street Overpass Active Transportation Corridor, complete the currently planned Sutherland Active Transportation Corridor and extend it through the Landmark area along Sutherland and possibly to the Mid Town Urban Centre. Support the AT corridor with bike lanes on adjacent streets.

**Transit** – Possible rerouting of Route 11 through the core of the Landmark area using the extended Sutherland. Improve pedestrian and cycling networks to link dense land uses within the Urban Centre to adjacent transit routes along Harvey Ave, Springfield Rd and Burtch Rd.

**Major Road Connections** - Creating additional connections to the major road network, with intersections and controlled pedestrian crossings, will give urban centre traffic more route options to adjacent major roads, distributing traffic to multiple locations and providing a resilient network. By providing more direct routes, some trips to the adjacent destinations and corridors will become shorter. These new intersections will also benefit cyclist and pedestrians by create new improved crossings of major roads.

**Harvey / Burtch** – Field observations have highlighted that vehicles travelling northbound on Burtch are queuing through the Burtch / Sutherland intersection, impacting traffic operations into the Landmark area. Capacity improvements at the Harvey / Burtch intersection could improve

conditions but require additional analysis of this complex multi-jurisdictional intersection. The extension of Sutherland to Spall may redistribute some trips from Burtch that are destined to the north.

## Options Assessment

Two transportation network / land use options were assessed as part of the initial phase of the Urban Centre Plan. While many elements are common to both options, there are differences in network layout and infrastructure: particularly the proposed alignment of Sutherland Ave east of Burtch Rd.

Option 1 envisions Sutherland extending east onto Dickson, turning down Dayton and then turning again at Dolphin towards Spall. This option requires the realignment of the Sutherland / Burtch intersection and a short extension to link with Dickson. Multiple turns will make the new route less effective as a vehicle and transit route and the constrained right of way may make the provision of an ATC more challenging. All east-west traffic will travel through the busiest segments of Dickson / Dayton and the overall redundancy of the network would be only marginally better than the status quo.

Option 2 creates a stronger connection by directly linking Sutherland to Dolphin and then continuing east to Spall. This more direct routing would be ideal for vehicles, transit and cyclists moving east-west and connecting to Spall Rd. By bypassing some of the busier segments of Dickson / Dayton it will be more reliable and allow for alternative routes, making a more reliable network. The realignment of Sutherland to Dolphin will also create more flexibility for Dickson and Dayton to be pedestrianized.

Due to the less infrastructure and land requirements Option 1 may be marginally easier to develop in the short term, however Option 2 is better aligned with the goals and objectives set out in the UCR. The table below displays the relative ranking of each option and the existing condition for each criteria that was used for review and analysis.

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Mode	Criteria	Existing Condition	Option 1	Option 2
Pedestrian	Improved Permeability			
Pedestrian	Improved Major Road Crossings			
Pedestrian	Reduced Exposure Risk/Conflict Points			
Cycling	Improved Permeability			

Cycling	Improved Connectivity			
Cycling	Reduced Exposure Risk/Conflict Points			
Cycling	Increased Access to AT Network			
Transit	Improved Permeability			
Transit	Potential to Bring Transit to Core			
Transit	Improved Transit's Competitiveness			
Vehicular	Improved Connectivity within Urban Centre			
Vehicular	Improved Connectivity to Major Road Network			
Vehicular	Improved Permeability / Redundancy			
Vehicular	Anticipated Vehicular Use of Network - Internal			
Vehicular	Anticipated Vehicular Use of Network - External			

Not Achieve				Achieve
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Based on the review completed, there are significantly more transportation benefits from Option 2 – the Sutherland realignment to Dolphin through to Spall. This option best mitigates existing traffic issues, creates redundancy and connectivity for all modes and accommodates future growth. It also prioritizes walking, cycling, and transit, enabling a shift to these modes. Facilitating and encouraging this mode shift is key to the success of the continued urbanization and growth of the city. The marginal increase to infrastructure costs between Option 1 and Options 2 is outweighed by the multimodal benefits achieved by these investments; therefore, Option 2 is preferred from a transportation perspective.

## Next Steps

Following to adoption of a preferred network option, refinement of the option will be undertaken through a more detailed analysis. This analysis will assess the performance of individual elements of the proposed transportation network and recommend refinements to the proposed concept moving forward.