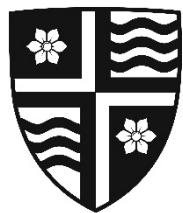


Township of
Langley



REPORT TO MAYOR AND COUNCIL

Est. 1873

PRESENTED: JUNE 24, 2024 - REGULAR MEETING
FROM: ENGINEERING DIVISION
SUBJECT: CAPITAL FUNDING REQUEST - 86 AVENUE FROM 200 STREET TO 202 STREET

REPORT: 24-133
FILE: 5330-23-163

RECOMMENDATIONS:

That Council endorse the conceptual design of 86 Avenue from 200 Street to 202 Street that includes four (4) vehicle travel lanes, bicycle lanes, sidewalks, and Multi-Use Paths.

That Council authorize \$3,400,000 in funding utilizing \$2,097,000 from Transportation DCC's and \$1,303,000 from Capital Project Reserve to construct 86 Avenue from 200 Street to 202 Street.

That Council endorse modifying the design of 86 Avenue between 200 Street and 201 Street to replace the unprotected bicycle lanes and sidewalk with a Multi-Use Path by reconstructing the north and south boulevards.

That Council authorize \$400,000 from the Capital Project Reserve for the reconstruction of the north and south boulevards on 86 Avenue between 200 Street and 201 Street.

EXECUTIVE SUMMARY:

At the November 06, 2023, Regular Meeting of Council, staff was directed to report to Council with a road widening project plan to complete:

- (1) *203 Street / 202A Street / 202B Street from 62 Avenue to 80 Avenue;*
- (2) *202 Street from 80 Avenue to 86 Avenue; and*
- (3) *86 Avenue from 200 Street to 202 Street.*

A preliminary conceptual design for the widening of 86 Avenue from 200 Street to 202 Street has been prepared for the Township of Langley (Township) and is included as Attachment A. The conceptual design of 86 Avenue includes widening to a four-lane arterial road standard with curb, gutter, multi-use paths (MUP's), protected bike lanes, sidewalks, raised medians/left turn lanes, street lighting.

The preliminary design has been reviewed by staff, and subject to Council endorsement of the concept, will be revised to include the following amendments:

- A traffic signal design with crosswalks on 86 Avenue at 201 Street.
- Restricted vehicle movements to right-in-right-out by extending the centre median at 86 Avenue and 201B Street intersection.
- A two-stage pedestrian Special Crosswalk on 86 Avenue at 201B Street.
- Extend the eastbound left-turn lane at 86 Avenue and 202 Street intersection to accommodate anticipated high demand for this movement.

UPDATE - 86 AVENUE FROM 200 STREET TO 202 STREET

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- Additional bike lane marking with green surface treatment on all sides of the intersection to provide additional visibility for drivers and cyclists at conflict areas.
- Reconfigure 86 Avenue between 202 Street and 202B Street to include a buffered bike lane along the north side of the roadway to match the proposed lane configuration on the west side of the intersection.

The preliminary (Class D) construction cost estimate for the preliminary conceptual design of 86 Avenue between 200 Street and 202 Street is \$3,400,000.

All remaining undeveloped properties along this section of 86 Avenue have submitted development applications and are at different stages of the development process. Even with advancing the road construction ahead of development, staff anticipate being able to acquire the necessary property acquisition and/or road dedication at minimal cost to the Township.

Staff note that the section of 86 Avenue between 200 Street and 201 Street does not have sufficient width to implement protected bike lanes. This section currently consists of a 2.5 metre concrete sidewalk and 2.0 metre grass boulevard with plantings and trees. The current curb to curb width provides only enough space for 1.5 metre painted bicycle lanes. An option has been identified to reconstruct the boulevards on both the north and south sides of 86 Avenue to provide wider MUP's at an additional construction cost of \$400,000.

PURPOSE:

To provide Council with updated information on the design of 86 Avenue from 200 Street to 202 Street and seek endorsement of a draft conceptual design and authorize the required funding.

DISCUSSION/ANALYSIS:

86 Avenue is designated as a Major Arterial Road in the 2009 Master Transportation Plan and in the Carvolth Neighbourhood Plan and serves to provide east-west connectivity into the Carvolth Business Park from the east and west sides of 200 Street. The intersection of 86 Avenue at 202 Street connects to the Carvolth Transit Exchange, Park and Ride, and underpass of Highway 1 to Walnut Grove and to the High Occupancy Vehicle (HOV) ramps connecting to Highway 1.

The Township is collaborating with TransLink on the proposed Langley to Haney Bus Rapid Transit (BRT) line that may be utilizing 86 Avenue from 200 Street to 202 Street for access to the Carvolth Transit Exchange. The conceptual plan for the BRT has yet to be determined, however, the 86 Avenue design includes four (4) vehicle travel lanes with the potential to convert two (2) of the lanes to dedicated bus lanes or HOV/Bus Lanes. The BRT may also include transit priority measures on 86 Avenue.

The preliminary conceptual design for the widening of 86 Avenue from 200 Street to 202 Street has been submitted to the Township for review (Attachment A). The preliminary conceptual design has been reviewed by staff, and subject to Council endorsement of the concept, will be revised to include the following amendments:

- A traffic signal design with crosswalks on 86 Avenue at 201 Street.
- Restricted vehicle movements to right-in-right-out by extending the centre median at 86 Avenue and 201B Street intersection.
- A two-stage pedestrian activated Special Crosswalk on 86 Avenue at 201B Street.
- Extend the eastbound left-turn lane at 86 Avenue and 202 Street intersection to accommodate anticipated high demand for this movement.
- Additional bike lane marking with green surface treatment on all sides of the intersection to provide additional visibility for drivers and cyclists at conflict areas.
- Reconfigure 86 Avenue between 202 Street and 202B Street to include a buffered bike lane along the north side of the roadway to match the proposed lane configuration on the west side of the intersection.

The addition of a new traffic signal at 201 Street and the pedestrian signal at 201B Street were not in the preliminary scope of the project but have been added due to the anticipated high-density development and future demand for enhanced active transportation facilities.

The scope of work for 86 Avenue includes a functional design for the road widening from a two-lane to a four-lane arterial road standard including improved vehicle, pedestrian, and cycling facilities, curbs and gutters, MUPs, protected bike lanes, raised medians/left turn lanes, and street lighting.

A preliminary (Class D) cost estimate has been prepared and the completion of works for 86 Avenue from 200 Street to 202 Street is estimated to cost \$3,400,000 for road and site improvement, utilities upgrades, earthwork, roadway lighting, and traffic signals. This includes a 40% contingency due to the conceptual nature of the design undertaken without a topographical survey.

Optional Recommendations/Alternatives:

Due to the constraints of the existing curb-to-curb road width of 86 Avenue between 200 Street and 201 Street, on-street protected bicycle lanes cannot be accommodated. This portion of 86 Avenue was designed and constructed prior to changes in guidelines for active

transportation facilities and currently consists of a 2.5 metre concrete sidewalk and 2.0 metre grass boulevard with plantings and trees.

The preliminary concept design between 200 Street and 201 Street includes a 1.5 metre painted bike facility on either side of the road segment as well as retaining the 2.5 metre concrete MUP. Although this design would result in the cheapest and quickest option, this is not considered as the preferred standard based upon best practices.

Staff recommend reconstructing the north and south boulevard between 200 Street and 201 Street to include a 3.0 metre wide MUP and 1.5 metre grass boulevard. This would require extensive work to reconstruct the boulevard, including the removal of several existing mature trees, and possible relocation of existing utilities such as streetlights, manholes, catch basins, and third-party infrastructure. This option has an estimated cost of \$400,000.

Respectfully submitted,

Paul Cordeiro
MANAGER, TRANSPORTATION ENGINEERING
for
ENGINEERING DIVISION

ATTACHMENT A 86 Avenue Conceptual Design

