



City of Port Moody

Transportation Committee

Date: April 26, 2023
Submitted by: Engineering and Operations Department – Infrastructure Engineering Services Division
Subject: Moray Street Traffic Calming Pilot Project – Results and Recommendations

Purpose

To describe the results of the Moray Street Traffic Calming Pilot Project and recommend next steps.

Recommended Resolution(s)

THAT the Transportation Committee endorses the following resolutions:

THAT the Moray Street Traffic Calming Pilot Project be adopted as a permanent initiative with designs for future permanent works to consider the pilot project results as recommended in the report dated April 26, 2023, from the Engineering and Operations Department – Infrastructure Engineering Services Division regarding Moray Street Traffic Calming Pilot Project – Results and Recommendations;

AND THAT a project in the amount of \$75,000 be added to the 2024 Capital Program to complete the detailed design of permanent traffic calming changes to Moray Street.

Background

Moray Street is a collector road between Port Moody and Coquitlam that accommodates a significant amount of regional traffic and local access, about 7,000 vehicles per day. The street traditionally had one lane of traffic in each direction and on-street parking on both sides. Local residents have been concerned about vehicle speeds on the street for some time. Moray Street was repaved in the summer of 2020 and the City took the opportunity to establish traffic calming by narrowing travel lanes and adding a southbound uphill bike lane. The City received public feedback about the change, including concern from a number of residents about vehicle speeds still being high and the northbound downhill travel lane being uncomfortably close to the east sidewalk. In response, on February 9, 2021, Council resolved:

RC21/077:

THAT requests for Traffic Calming Initiatives be reviewed, prioritized, and initiated as outlined in the report dated December 16, 2020, from the General Manager of

Engineering and Operations regarding Moray Street Traffic Concerns and Proposed Traffic Calming Initiative Approach;

AND THAT a traffic calming study and concept design with public consultation be completed for Moray Street, including consideration of:

- reversing lane positioning, placing parking along eastern (sidewalk) side;*
- adding a pedestrian crossing at Pinda Drive (stop sign, push-button lights, signal); and*
- installing temporary curb bulges at key intersections, similar to Noons Creek Drive;*

AND THAT a speed reader board or speed feedback lights be temporarily installed in the southbound direction on Moray Street in the interim;

AND THAT the budget requirement of up to \$30,000 for the Moray Street traffic calming initiative and up to \$3,000 for installation of speed feedback lights be referred to the Finance Committee for identification of a funding source.

Staff retained a consultant to complete a traffic calming study, public engagement, and preliminary design assignment. On March 22, 2022, Council resolved:

RC22/115:

THAT the proposed traffic calming pilot design for Moray Street between St. Johns Street and Brookmount Avenue be endorsed as recommended in the report dated February 3, 2022 from the Infrastructure Engineering Services Division regarding Moray Street Traffic Calming Study and Pilot Project;

AND THAT the additional budget requirement of \$30,000 be forwarded to the Finance Committee for identification of a funding source;

AND THAT staff report back on the findings of the monitoring period, including public feedback about the project, after one year.

Discussion

The Moray Street Traffic Calming Pilot Project was implemented in July and August of 2022 and consisted of the following measures, as shown in **Attachment 1**:

- Paint to establish new lane lines and centre medians;
- White plastic delineators to establish new temporary curb geometry;
- Yellow plastic curbs and delineators to establish temporary centre medians;
- New concrete letdowns, crosswalk signage and rectangular rapid flashing beacons (RRFBs) at the Pinda Drive crosswalk;
- Temporary sidewalk for a short distance south of the Pinda Drive crosswalk to address a local concern regarding walking on the west side of the street.

Effectiveness of Traffic Calming Measures at Reducing Vehicle Speeds

The primary goal of the traffic calming project was to reduce vehicle speeds and improve comfort for other users of the street. As part of the project, the City had speed monitoring conducted before the measures were implemented, in June 2022, and twice afterwards, in September and November 2022. The results of this monitoring are summarized in **Table 1**.

Table 1: Traffic speeds pre- and post-implementation of traffic calming measures.

Direction	Total Vehicles	15 th Percentile Speed (km/h)	50 th Percentile Speed (km/h)	85 th Percentile Speed (km/h)	Maximum Speed (km/h)
Pre-implementation: June 23, 2022, AM Peak (6-9am)					
Northbound	580	41	46	53	69
Southbound	539	37	44	51	75
Post-implementation: September 29, 2022, AM Peak (6-9am)					
Northbound	547	36	41	47	63
Southbound	487	34	40	46	61
Post-implementation: November 17, 2022, AM Peak (6-9am)					
Northbound	589	36	42	47	61
Southbound	477	36	42	47	59
Pre-implementation: June 23, 2022, PM Peak (3-6pm)					
Northbound	1,217	40	45	50	63
Southbound	907	38	44	51	69
Post-implementation: September 29, 2022, PM Peak (3-6pm)					
Northbound	986	36	41	46	57
Southbound	820	34	40	46	59
Post-implementation: November 17, 2022, PM Peak (3-6pm)					
Northbound	1,222	34	40	45	57
Southbound	932	33	40	46	68

Comparing pre- and post-implementation, vehicle speeds after the traffic calming measures were implemented were about 5-6 km/h slower. Traffic volumes were not significantly affected.

Feedback from Members of the Public

The project generated considerable public interest, and comments were received along the following general themes, with staff commentary:

Feedback	Staff comments
Traffic calming measures were welcomed.	<ul style="list-style-type: none">• Feedback noted.
New crosswalk at Pinda Drive was helpful/appreciated.	<ul style="list-style-type: none">• Feedback noted.
Traffic calming measures were unattractive.	<ul style="list-style-type: none">• Temporary traffic calming measures are often highly noticeable to differentiate from the surrounding environment. Permanent implementation of the traffic calming would be with typical construction techniques seen throughout the city.
Traffic calming measures were ineffective: reports that the measures did not reduce speeds.	<ul style="list-style-type: none">• As noted above, monitoring of the project demonstrated that vehicle speeds were lower after implementation. However, vehicles traveling faster than the posted speed limit of 30 km/h were nevertheless observed. Public reports of ineffectiveness may have been referring to specific vehicles and not trends.

Traffic calming measures would make driving unsafe, particularly during the winter: commenters were generally concerned about loss of control type collisions.	<ul style="list-style-type: none"> Based on staff monitoring and conversations with Port Moody Police, there does not appear to have been an increase in loss of control type collisions through the pilot project.
Traffic calming measures would cause problems for specific classes of vehicles: concerns were raised about potential effects for emergency response, garbage collection, and snow clearance.	<ul style="list-style-type: none"> The design was completed with the needs of fire trucks in mind, and emergency responders have not indicated issues with response. Discussions and site observations with Solid Waste Services have identified some challenges with turning waste collection trucks from side streets onto Moray Street, primarily with the locations of the centre medians, that will require design changes for a permanent design. Discussions and site observations with Operations staff identified that lane width and geometry was more challenging for snow clearing prior to the winter season. Staff elected to leave the measures in place during the winter to observe the extent of the challenges during actual conditions and incorporate lessons learned into the permanent design.
Loss of cycling facilities and new design made cycling more difficult/less safe.	<ul style="list-style-type: none"> The loss of cycling facilities was recognized prior to the pilot implementation, but it was not possible to create a pilot traffic calming design that also incorporated cycling facilities meeting BC Active Transportation Design Guidelines. Cycling facilities comfortable for all ages and abilities would be incorporated into the permanent design or an alternative routing will be identified and planned.

Elements to Consider in Permanent Design

Based on the experience during the pilot, staff make the following observations of changes that should be considered during the permanent design:

Design Element	Notes
Need for west sidewalk	The need for a sidewalk on the west side of Moray Street was identified during public engagement for the traffic calming study, and City standards for new and reconstructed collector roads require sidewalks on both sides of the road. It was not possible to pilot a sidewalk, but the permanent design should explore adding a walking facility on the west side that is adequately separated from traffic.
All ages and abilities cycling facility	<p>Staff met with the City of Coquitlam in August 2021, which explained its direction to not have cycling facilities on Moray Street/Thermal Drive, but rather to direct cyclists to Clearview Drive and Park Crescent. Accordingly, staff have been scoping the permanent design to provide an all-ages-and-abilities (AAA) cycling facility between the St. Johns Street & Moray Street intersection and the Brookmount Avenue & Clearview Drive intersection. However, staff recently met again with the City of Coquitlam, which provided evolving direction from its Strategic Transportation Plan work and is now considering cycling facilities along Moray Street/Thermal Drive.</p> <p>This change increases the importance of potentially providing AAA cycling facilities on Moray Street and affects considerations of what kind of facility might be provided. If using Moray Street, the speed and volume of traffic requires consideration of separated cycling facilities, either protected bike lanes or boulevard facilities, under</p>

Design Element	Notes
	<p>BC's Active Transportation Design Guidelines. Broadly speaking, there are several alternatives to consider, including:</p> <ol style="list-style-type: none"> 1. Travel on St. Johns Street: This would direct cyclists to Clearview Drive along St. Johns Street, and cyclists would reach Moray Street via Brookmount Avenue and/or City of Coquitlam roads such as Palermo Street/Pinecrest Avenue or Park Crescent. 2. Connection from James Road: The current design of Moray Street between St. Johns Street and Moray Place does not have enough width to add AAA cycling facilities. It may be possible through development to connect Moray Street and James Road, via Moray Place, for active transportation. From there, cyclists would be directed onto Moray Street. 3. Moray Street: This alternative would seek to add AAA cycling facilities to Moray Street. This alternative would also need to consider changes to the design of Moray Street between St. Johns Street and Moray Place.
Centre medians	<p>The centre medians were an important feature of the pilot design to direct traffic through the lateral shifts in the road centreline, constrain the travel lanes to make driving fast uncomfortable, and keep opposite directions of traffic separate. However, the medians also created complications for property access, difficulties for snow clearance, and problems for solid waste trucks and snowplows exiting from side streets. The permanent design will need to further optimize locations of medians, their location, and design.</p>
Crosswalks	<p>Public feedback about the new crosswalk at Pinda Drive has generally been positive and the permanent design will likely retain it with few changes. The City has also received requests for consideration of a marked crosswalk at the intersection of Moray Street & Brookmount Avenue. The existing sidewalks along Brookmount Avenue suggest that the preferred location for a crosswalk would be on the south side of the intersection, within the City of Coquitlam and would be within that City's jurisdiction.</p>
Lighting	<p>The traffic calming study included an assessment of existing street lighting and determined the need for improvements. It was not possible to pilot these improvements, which include the need to add multiple street light poles. These would be incorporated into the permanent design.</p>

Considerations for Neighbourhood Traffic Calming Policy

The Moray Street Traffic Calming Study and Pilot Project was conducted with Council direction outside of the normal process described in the City's Neighbourhood Traffic Calming Policy. The study followed the broad direction and spirit of the policy, including the identification of a priority project through data collection, development of a design, and community engagement throughout the process. However, the specific requirements within the policy to establish a Neighbourhood Advisory Committee and seek to obtain 2/3 support of residents or property owners in the affected area have not been followed.

The City's 2017 Master Transportation Plan included a recommendation to update the Neighbourhood Traffic Calming Policy, which was originally written in 2001 and last amended in 2017 per Resolution RC17/031 (CW17/117). Lessons learned from the Moray Street Traffic Calming Study and Pilot Project suggest a potential path for updating the policy.

Recommendations

Staff recommend adopting the Moray Street Traffic Calming Pilot Project as a permanent initiative. For future permanent construction of the traffic calming project, the pilot results outlined in this report should be considered and as such staff recommend that the City consider adding \$75,000 to the 2024 Capital Program to complete a detailed design for Moray Street.

Other Option(s)

The City could revert Moray Street to one of its previous configurations through pavement markings only. This would not address the speeding complaints received by the City and would not add dedicated cycling facilities or additional facilities for pedestrians. However, because the City has been advised that illumination does not meet current guidelines, staff would recommend that lighting be improved to meet those guidelines. A potential resolution might be:

THAT the Transportation Committee endorses the following recommendation for Council consideration:

THAT staff be directed to revert Moray Street to a prior configuration through pavement markings and initiate a design and construction project to improve street lighting.

Financial Implications

The detailed design assignment for Moray Street is estimated to cost \$75,000. The cost to permanently implement the Moray Street conceptual design as originally devised in March 2022 was estimated at about \$720,000, which included street lighting and a 50% contingency factor. The detailed design assignment would arrive at a more accurate cost estimate based on any design revisions and more accurate estimates of construction materials and labour.

Communications and Civic Engagement Initiatives

The City conducted civic engagement during the Moray Street Traffic Calming Study as reported previously to Council. No direct civic engagement was conducted during the traffic calming pilot, but staff received and responded to public comments about the project.

Council Strategic Plan Objectives

The proposed recommendation aligns with Council's Healthy Community Development strategic priority area and the goal of providing safe, efficient, and accessible transportation options by aiming to provide safe and comfortable transportation options for all ages and abilities.

Attachment(s)

1. Moray Street Traffic Calming Pilot Design

Report Author

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Report Approval Details

Document Title:	Moray Street Traffic Calming Pilot Project - Results and Recommendations.docx
Attachments:	- Attachment 1 - Moray Street Traffic Calming Pilot Design.pdf
Final Approval Date:	May 12, 2023

This report and all of its attachments were approved and signed as outlined below:

Vanessa Washington, Legislative Services Coordinator - May 10, 2023 - 12:19 PM

Jeff Moi, General Manager of Engineering and Operations - May 10, 2023 - 1:30 PM

Jennifer Mills, Legislative Services Advisor - May 10, 2023 - 8:07 PM

Stephanie Lam, City Clerk and Manager of Legislative Services - May 12, 2023 - 10:07 AM