

REGION OF OTTAWA-CARLETON  
RÉGION D'OTTAWA-CARLETON

REPORT  
RAPPORT

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Our File/N/Réf.                   **50 12-00-P417**  
Your File/V/Réf.

DATE                               05 June 2000

TO/DEST.                        Co-ordinator Transportation Committee

FROM/EXP.                      Director Engineering Division  
                                      Environment and Transportation Department

SUBJECT/OBJET                 **MODIFICATIONS AT HIGHWAY 417 WESTBOUND OFF-  
RAMP/PINECREST ROAD**

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### DEPARTMENTAL RECOMMENDATIONS

**That Transportation Committee recommend Council approve the preliminary design for the proposed modifications at the Highway 417 westbound off-ramp/Pinecrest Road intersection, as illustrated on Annex 'B' to:**

- 1. Provide a dedicated westbound approach bus lane at the intersection;**
- 2. Relocate the northbound right-turn movement to Pinecrest Road and remove the existing right-turn channelization lane.**

### BACKGROUND

At its meeting of 24 February 1999, Regional Council approved the recommendations to undertake transit improvement initiatives in the Highway 417 corridor, between the Southwest Transitway and Eagleson Road, to improve bus schedule adherence and reliability to enhance transit service. These proposed initiatives included the construction of modifications at the Highway 417/Pinecrest Road off-ramp intersection to provide buses with queue priority at the intersection.

Currently, westbound rapid transit services utilize the existing acceleration/deceleration lane between Woodroffe Avenue and Pinecrest Road and, at this time, this operation is relatively unhindered by traffic conditions on Highway 417. However, at the Pinecrest Road off-ramp buses have to enter a mixed

traffic environment and significant delays are being experienced due to the general traffic congestion conditions during the p.m. peak travel hours.

The construction of a dedicated bus approach lane at this intersection will improve westbound transit operations at this intersection.

### EXISTING CONDITIONS

Pinecrest Road at the Highway 417 westbound off-ramp intersection is classified as a six-lane divided urban arterial roadway with a posted speed limit of 50 km/h. On the approach ramp to the intersection there are two left-turns for the west to southbound traffic and a west to northbound channelized right-turn lane, as illustrated on Annex 'A'. The intersection is signalized.

#### Pedestrians

1.5 m. sidewalks are located along both sides of Pinecrest Road. On the east side of Pinecrest Road pedestrians presently cross the off-ramp's two left-turn lanes to the traffic island with a signal and then have to cross the right-turn channelization lane with no signal.

#### Bicycles

Pinecrest Road is designated in the Region's Transportation Master Plan and the Official Plan as a roadway with on-road cycling facilities. Currently there is a 4.2 m. wide curb lane to provide for cyclists.

#### Transit

All buses proceeding westbound from the Southwest Transitway at the Queensway Station exit Highway 417 at the Pinecrest Road interchange to service the westbound bus stop located on the west side of the intersection. One hundred and four buses proceed westerly through this intersection during the evening peak hours. Currently, transit services along this section of Pinecrest Road are provided by regular routes 172 and 181 travelling on regular headways.

### DESIGN PROPOSAL

The proposed modifications at the westbound ramp connection to Pinecrest Road are located entirely on the east side of Pinecrest Road are shown on Annex 'B' and described below:

1. Construct a dedicated bus lane on the approach to the intersection which will be located immediately adjacent to the existing double left-turn lanes, with sufficient storage length for all the buses entering the intersection.

2. Relocate the right-turn lane to the signalized intersection and remove the existing turn channelization lane, traffic island, and relocate the associated traffic control plant. The storage length of this lane will be sufficient to ensure that the right-turn queue length will not impact the double left-turn and dedicated bus lanes.

The implementation of these modifications will not require any modifications to the intersection's traffic control signal operations and will not adversely affect traffic operations on the ramp.

Since the Pinecrest Road westbound ramp and intersection is located within the limits of the Ministry of Transportation's Highway 417/Pinecrest Road interchange, the final design of the proposed intersection modifications is subject to Ministry approval. The preliminary design has received approval in principle.

#### CONFORMITY TO THE TRANSPORTATION MASTER PLAN

The guiding principles from the Transportation Master Plan is the provision of a modal hierarchy on walking, cycling and transit usage. This principle is reflected in the following design features:

1. The removal of the existing right-turn lane channelization will reduce the total intersection pedestrian crossing distance and improve safety since pedestrians can make crossing under signal control.
2. The provision of a dedicated bus lane which will give westbound buses priority through the intersection.

#### FINANCIAL COMMENT

The following cost estimates, which are at a preliminary design stage, are provided for the information of Transportation Committee and Council.

| <u>Item</u>             | <u>Cost Estimate</u> |
|-------------------------|----------------------|
| Construction            | \$100,000            |
| Engineering             | \$50,000             |
| Traffic Control Signals | \$75,000             |
| Utilities               | \$10,000             |
| Contingencies           | <u>\$25,000</u>      |
| Total Cost Estimate     | <u>\$260,000</u>     |

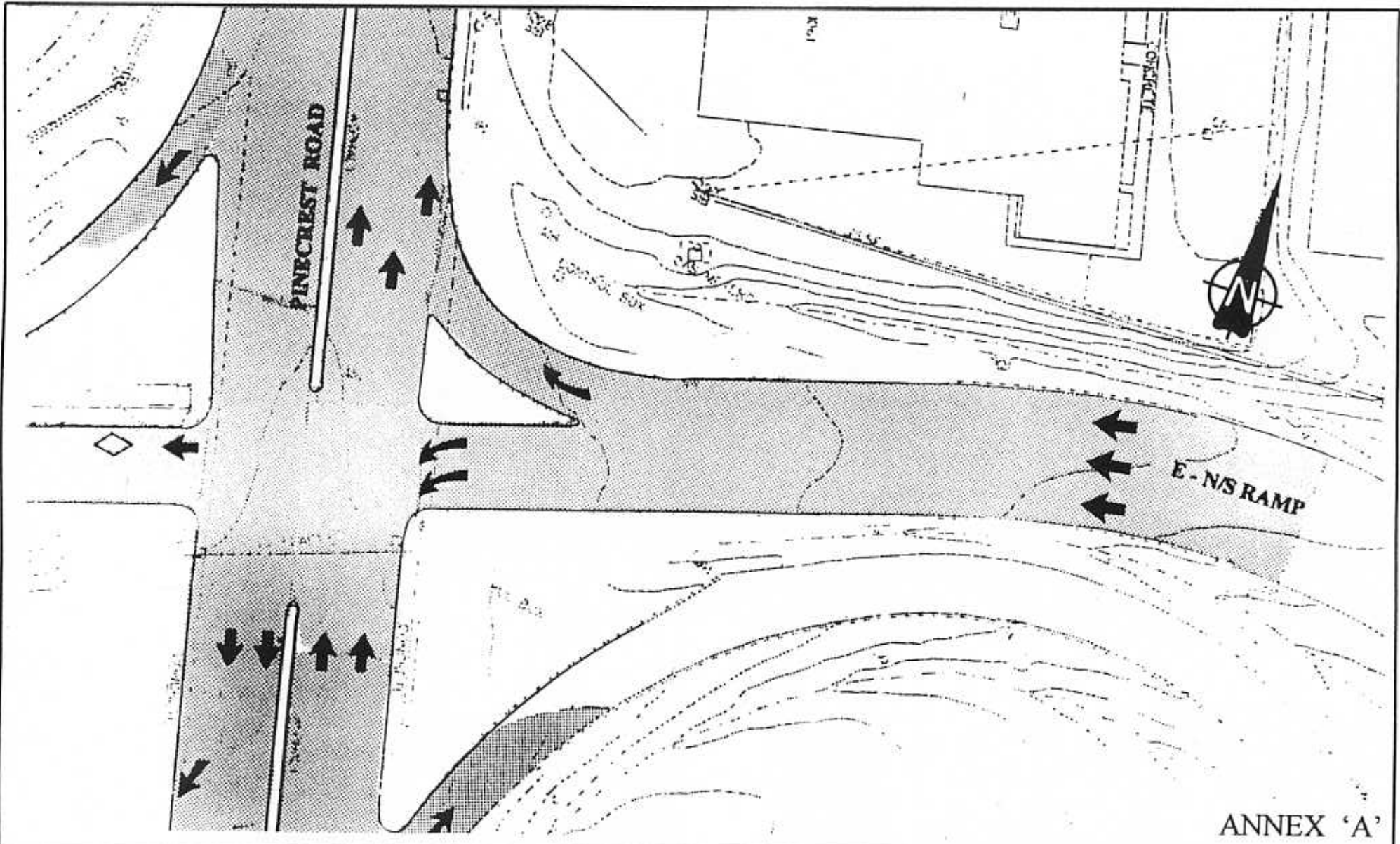
CONSULTATION

Notice of the proposed Highway 417 Westbound Ramp/Pinecrest Road modifications to provide a westbound dedicated bus lane and the incorporation of the right-turn lane into the intersection has been placed in the Ottawa Citizen, the Ottawa Sun and LeDroit for four consecutive weeks, starting on 26 May 2000.

*Approved by  
J. Miller, P. Eng.*

MJR/cpv

Attach ( 2 )



**OTTAWA-CARLETON**  
 Environment &  
 Transportation Department

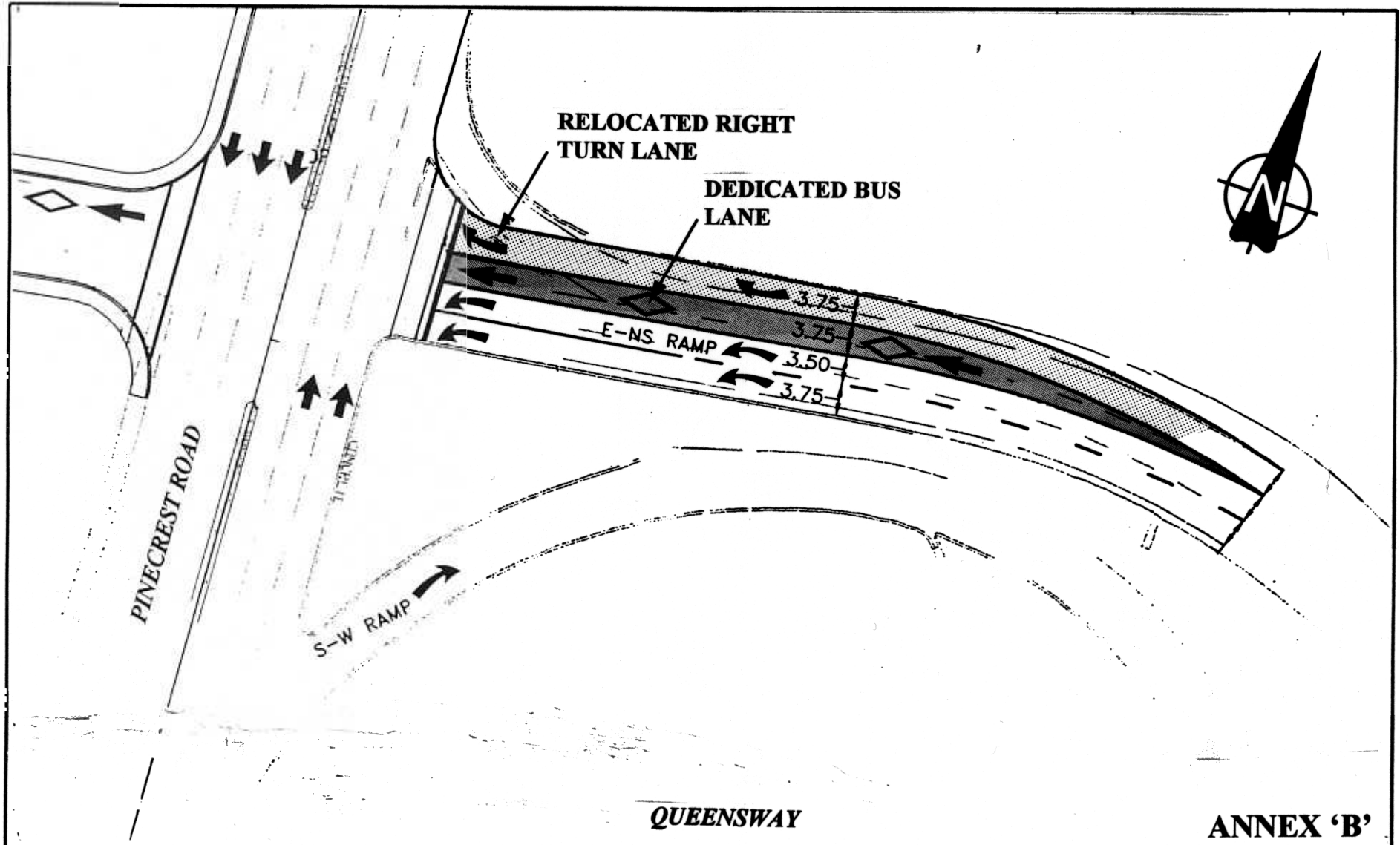
**QUEENSWAY/PINECREST ROAD E-N/S RAMP INTERSECTION**  
**PROPOSED BUS QUEUE JUMP LANE**  
**EXISTING CONDITIONS**

|       |         |                 |                 |
|-------|---------|-----------------|-----------------|
| Drawn | Checked | Date<br>MAR.'00 | Scale<br>N.T.S. |
|-------|---------|-----------------|-----------------|

ENGINEERING DIVISION

*W. Bennett, P.Eng.*  
 Manager Transportation Projects

RT - 2425



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| <b>OTTAWA-CARLETON</b><br>Environment &<br>Transportation Department |         |        | <b>QUEENSWAY/PINECREST ROAD E-N/S RAMP INTERSECTION</b><br><b>PROPOSED BUS QUEUE JUMP LANE</b><br><b>GENERAL ARRANGEMENT</b> |  |                  |
| Checked  | Date    | Scale  | ENGINEERING DIVISION   | <i>W. Bennett, P.Eng.</i><br>Manager Transportation Projects | <b>RT - 2426</b> |
|  | MAR.'00 | N.T.S. |  |  |                  |