

**4. WEST TRANSITWAY (LEBRETON FLATS) - FUNCTIONAL DESIGN**

**COMMITTEE RECOMMENDATIONS**

**That Council:**

- 1. Approve the West Transitway (LeBreton Flats) Functional Design;**
- 2. Authorize staff to proceed to the next step of preliminary and detailed design of the West Transitway (LeBreton Flats).**

**DOCUMENTATION**

1. Commissioner, Planning and Development Approvals Department report dated 25 January 2000 is immediately attached.

REGION OF OTTAWA-CARLETON  
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REPORT  
RAPPORT  
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Our File/N/Réf.                    48-95-0008  
 Your File/V/Réf.

DATE                                25 January 2000

TO/DEST.                         Co-ordinator Transportation Committee

FROM/EXP.                        Planning and Development Approvals Commissioner

SUBJECT/OBJET                 **WEST TRANSITWAY (LEBRETON FLATS)**  
**FUNCTIONAL DESIGN**

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### DEPARTMENTAL RECOMMENDATIONS

**That the Transportation Committee recommend Council:**

- 1. Approve the West Transitway (LeBreton Flats) Functional Design;**
- 2. Authorize staff to proceed to the next step of preliminary and detailed design of the West Transitway (LeBreton Flats).**

### BACKGROUND

In 1989, a planning process was initiated to chart a new course for the re-development of LeBreton Flats. With extensive community and political consultation, a blue print for a new community was developed by the NCC with participation of the Region and the City of Ottawa. This community is to be a pedestrian-friendly place where people can work and live. In the early 1990's a preferred concept was chosen that incorporated a mix of land uses (residential, commercial, office, retail, and cultural/institutional, open space).

A transportation network was also developed to support this preferred land use concept. The Ottawa River Parkway would be re-located to the south to allow access to the waterfront. Preston Street would be extended northerly from its current terminus at Wellington Street. The local roads would follow as much as possible the former grid of past roadway layouts in LeBreton. The Transitway would

be relocated and grade-separated with Booth Street to improve overall transit service, and to allow appropriate sized parcels of land to be developed in accordance with the Concept Plan.

Even without the development in LeBreton Flats, the Station is already heavily used. It serves as a major transfer point to link transit passengers to and from Hull. Grade-separation, along with the construction of proper station facilities will improve the pedestrian/passenger environment at this location, reduce overall operating costs, and meet the objectives of the Concept Plan for LeBreton Flats.

Parallel to the work on the Concept Plan, property negotiations were initiated between the NCC, the Region, and the City. A Land Agreement was prepared that re-distributed the current patchwork of ownership. This Agreement would also ensure that the Concept Plan can be implemented. The Land Agreement was signed by the three parties in 1997.

This project remains exempt from the Provincial Environmental Assessment Act by way of the “Grandfather exemption”. An Environmental Screening Report was prepared for the NCC, to address Federal EA concerns.

One of the conditions of the Agreement stated that the Region would undertake the planning and design of the Transitway relocation and grade-separation of Booth Street. Through the Functional Design exercise, more accurate property limits for these facilities could be defined, and thus, the details of the land exchange could then be finalized. In November 1997, the Region retained the services of McCormick Rankin Corporation and David S. McRobie Architects to undertake the Functional Design.

The Functional Design assignment had two objectives:

1. To establish the boundaries of the new Transitway corridor, and Booth Street, in the context of current and future land uses.
2. To define at a concept level the architectural and urban design character of the physical elements of the Transitway corridor, Station, and Booth Street.

The major features of the recommended Functional Design are described below.

## DISCUSSION

### Transitway Alignment (Figure 1)

The new Transitway alignment, in relation to the existing alignment, is shown in Figure 1. It reflects the alignment that was established during the development of the Concept Plan. The Transitway is relocated approximately 30m south of its current location at Booth Street, and approximately 70m to the south at Preston Street. A relocated bus lay-by facility is situated at the western end. The Transitway will be grade-separated at Booth Street where a Station is proposed. Future roadways,

such as the Preston Street Extension, will also pass over the Transitway. The Transitway connects back into the local street system at the eastern end in the vicinity of Albert Street / Slater Street.

In its new alignment, the Transitway must maintain its current elevation in order to avoid conflicts with the high watertable. Given the existing sloping terrain, initially the Transitway will appear to be in a slight cut with graded back slopes. When development takes place on either side of the Transitway, retaining walls will be constructed as part of the development. The new grade of these adjacent development parcels will equate to the elevations of Booth and Preston Street bridges, as indicated in the Concept Plan.

### Station Design (Figures 2 and 3)

The Station is located immediately to the west of the Booth Street Bridge. This provides for reasonable walking distance between levels while providing the optimum visibility between levels which will reinforce opportunities for passive security monitoring. The Station abuts the lower level of future developed properties along its southern edge, but is entirely open to greenspace and the Aqueduct to the north.

The Station at the Transitway level will provide a similar level of service to passengers as that offered at most Transitway locations. Facilities include open platforms, enclosed and covered (fully glazed) stairs, covered shelters serving as links between stairs and enclosures, heating, and elevators. The platforms, shelters and weather-protected enclosures at the upper (Booth Street) level are linked by stairs and elevators to the lower level. The planning of the Station promotes clarity for users by the straightforward layout of walking routes and linkages between various facilities and destinations, reinforced by providing unobstructed sight lines to platforms, shelters and enclosures.

The Station scale and elements were designed to positively contribute to the character of the urban environment which will evolve in the LeBreton Flats community. There is a departure from the curved glass and red painted steel pipe evident at other stations on the Transitway network. The architectural form is intended to be in harmony with the character proposed for the new neighbourhood through the use of traditional building forms. Familiar building forms, describing outlines, massing and detailing of roofs, eaves, vertical elements, windows and doors, are intended to recall the heritage of the LeBreton Flats area. Materials and finishes will be compatible with the traditional palette envisaged for the LeBreton community.

### Booth Street (Figure 4)

Booth Street will remain in its current alignment, however the existing uneven profile will be improved with the introduction of the grade-separation with the Transitway. With appropriate clearances, Booth Street will gently slope down from Wellington/Albert to meet Fleet Street at grade. The roadway will accommodate four lanes of traffic and also provide for cycling and pedestrian movements. Given the limited roadway right-of-way, and the plan for development of adjacent commercial lands to abut the road, landscaping along the curb was not considered to be feasible.

The Booth Street Bridge is comprised of five sections spanning:

- the Transitway
- the groundspace between the Transitway and the Aqueduct
- the Aqueduct
- the section between the Aqueduct and the alignment of Ottawa Street
- the Ottawa Street alignment.

Functionally, the Bridge will replace the heritage bridge spanning the Aqueduct, although this structure will remain an important pedestrian link at the lower level between the Transit Station and the community to the north. The introduction of a lightwell in the median of the Booth Street Bridge will provide natural illumination for pedestrians using the heritage bridge below.

The scale and form of the bridge structures will reflect the traditional building forms being developed for the LeBreton neighbourhood. The materials and finishes will be in harmony with the traditional themes anticipated by the vision of the evolving neighbourhood. The fixtures, spacing, and height of light standards will express the human scale and architectural rhythm of the Bridge structure.

#### Wellington Street / Albert Street (Figure 5)

Wellington/Albert Street remains an essential artery in the Region's overall transportation network. Previous studies have illustrated that the desired route for much of the area traffic is on Wellington/Albert. These studies confirm that maintaining the appropriate level of service for this artery would require additional lanes to be constructed to accommodate the traffic projections. In support of the local communities' objection to an expansion of Wellington/Albert, Regional Council in its deliberation of Official Plan Amendment #66, took steps to ensure that Wellington/Albert is not expanded past its existing lane capacity. Council identified restrictions on the right-of-way widths, not only for Wellington /Albert Streets, but also for Booth Street.

The plans presented in the Functional Design respect the direction given by Council, however it should be noted that the intersections and lane configurations presented in this report maybe deficient in light of the anticipated development.

The major feature of the Wellington/Albert Street design is an improvement in the environment of the pedestrian route, particularly on the south side. West of Booth Street, the design proposes to move the south side curb line away from existing buildings to ensure adequate sidewalk (2.0m) and boulevard space (3.6m) for landscaping. On the north side, a sidewalk is included, however landscaping is assumed to be provided within adjacent private development, outside of the public right-of-way.

While a portion of the right-of-way, east of Booth Street, is required for an east-bound bus-only lane, it is possible to move the existing south side curb further from existing building frontage to provide for a wider sidewalk. Due to the restricted roadway allowance, landscaping in this section is proposed mainly as raised planters in the median.

#### Light Rail Integration (Figure 6)

In 1998, under a separate study, the Region initiated an assessment of a Pilot Project for Light Rail using the existing north-south rail line (CPR Champagne Corridor) from Bayview to South Keys. The Pilot Project includes several rail transit stations located along approximately 8 km of track, with the most northerly station near Scott Street between Champagne and Bayview streets. The development of the Light Rail Transit (LRT) station options was carried out with input from this West Transitway (LeBreton Flats) Study to ensure that the two modes could be interfaced in an appropriate manner. In September 1999, Regional Council approved the Light Rail Pilot Project for implementation.

In addition to the Pilot Project, a possible extension of the rail line towards the Central Business District, through LeBreton Flats, was investigated for feasibility by the LRT study team. The feasibility analysis concluded that the extension of rail through LeBreton Flats could share the Transitway alignment. As a result, the scope of the West Transitway (LeBreton Flats) Study was expanded to evaluate the impacts of such a rail extension on land requirements and vertical and horizontal clearances for structures spanning the Transitway corridor. This work was reviewed with the NCC. It was deemed that the inclusion of the LRT extension would not jeopardize the development plans for LeBreton Flats.

Generally, through the Flats, the rail line (double tracks) would straddle the Transitway corridor. This implies an additional 3m strip on either side of the Transitway. At the Transit Station, since there are already two bus lanes in each direction, one of these could be converted to rail in order to minimize additional property taking and impact on the Booth Street structure. The result is that within the station area, only an additional 0.5m widening on both sides of the Transitway is required to accommodate the rail extension. The rail platform will be placed end-to-end with the bus platform. A 1.0m extension of the Booth Street structure spanning the Station is necessary to accommodate the combined bus-rail system. The profile of Booth Street would be virtually unaffected.

#### Constructability

The Transitway construction has been identified by the NCC as a catalyst in the redevelopment of the site. It's early start would help to accelerate the planned redevelopment.

A series of detours will be required during construction of Booth Street which carries extremely high volumes of interprovincial commuter and truck traffic. Reduction of the roadway capacity in order to accommodate construction of the Booth Street overpass would be unlikely. A detour around the construction of the structure and approach fills will be required. Detour options include (to name a few) the construction of a bailey bridge across the Aqueduct in conjunction with minor detours of Booth Street; the construction of Preston Street Extension/LeBreton Boulevard Extension. Other detour options would be investigated at the detailed design stage.

The issue of when the light rail extension would be constructed was not investigated as part of this Functional Design Study. It would however, appear practical to lay the tracks at the same time that the Transitway is relocated.

### Cost

A “ball-park” estimate for the implementation of this project was established at roughly \$35 million. It represents construction costs for the Transitway relocation including the bus lay-by area and access at Champagne Avenue, the Station (both levels), the grade-separation of Booth Street (a series of structures), roadwork and landscaping on Wellington/Albert Streets, detours, design, and project management costs. Light Rail extension costs are not included. This estimate could be further fine-tuned with additional detailed design work.

### PUBLIC CONSULTATION

The Project Team worked closely with a Technical Advisory Committee (TAC) and a Public Advisory Committee (PAC) in developing the recommended functional design for the Transitway and Booth Street grade-separation.

TAC consisted of representatives from the NCC, the City of Ottawa, OC Transpo, and the Region’s Environment and Transportation Department, and Planning and Approvals Department.

PAC consisted of representatives from the following community and special interest groups: Friends of the Flats, Centretown Citizens Community Association, Dalhousie Community Association, Hintonburg Community Association, Good Companions Centre, OC Transpo Safety Committee, Disabled Persons Community Resources, Women’s Action Centre Against Violence, Ottawalk, Regional Cycling Advisory Committee, Citizens for Safe Cycling, Transport 2000, Centretown Citizens Ottawa Corporation, Laidlaw Co-Op, Dalhousie Co-Op, City Living, and Equity Realty Group.

In addition, several Open Houses were scheduled in 1998 and 1999 for the general public to review the project’s findings and recommendations.

## CONFORMITY TO OFFICIAL PLAN AND TRANSPORTATION MASTER PLAN

The West Transitway (LeBreton Flats) is identified in both the Official Plan and Transportation Master Plan. It is listed as a “second priority” transportation infrastructure project which is scheduled for implementation by approximately 2001-2006. The priority was established to reflect the importance of a quality transit station at LeBreton which is a major focus point for transit riders using east-west routes on the Transitway and travelling north-south to Hull. The priority was also established due to the fact that the Transitway relocation is fundamental to the LeBreton project and must take place before redevelopment can proceed.

Light Rail extension to the downtown will require further in-depth planning/design work and an Official Plan amendment. This Functional Design study only defines the land requirement needed to protect for a possible future extension of Light Rail through the Flats.

## COMMENTS FROM REGIONAL CYCLING ADVISORY GROUP

RCAG was consulted and was represented as a participant on the PAC. The LeBreton Flats Land Use Concept Plan has provisions for cycling/recreation pathways through the development site. On roadways, there are combinations of shared and separate cycling lanes on Booth and Preston Streets, based on the availability of rights-of-way. For grade changes at the Station (or between Booth Street and Ottawa Street) it is proposed that bike ramps be incorporated into the design of stairways. Other comments were of a detailed design nature such as: proper signage of facilities and the provision of a weather-protected area for bike parking.

## FINANCIAL COMMITMENT

There are no immediate financial commitments required at this time. The Functional Design was undertaken to mainly address the property requirements as outlined in the Land Agreement.

However, funding will be required for preliminary and detailed design, and eventual construction. The appropriate reports and financial statements will be prepared and presented to Committee and Council for approval prior to expenditure of any funds.

This project has been identified in the Capital Budget document (Account # 900281).

## NEXT STEPS

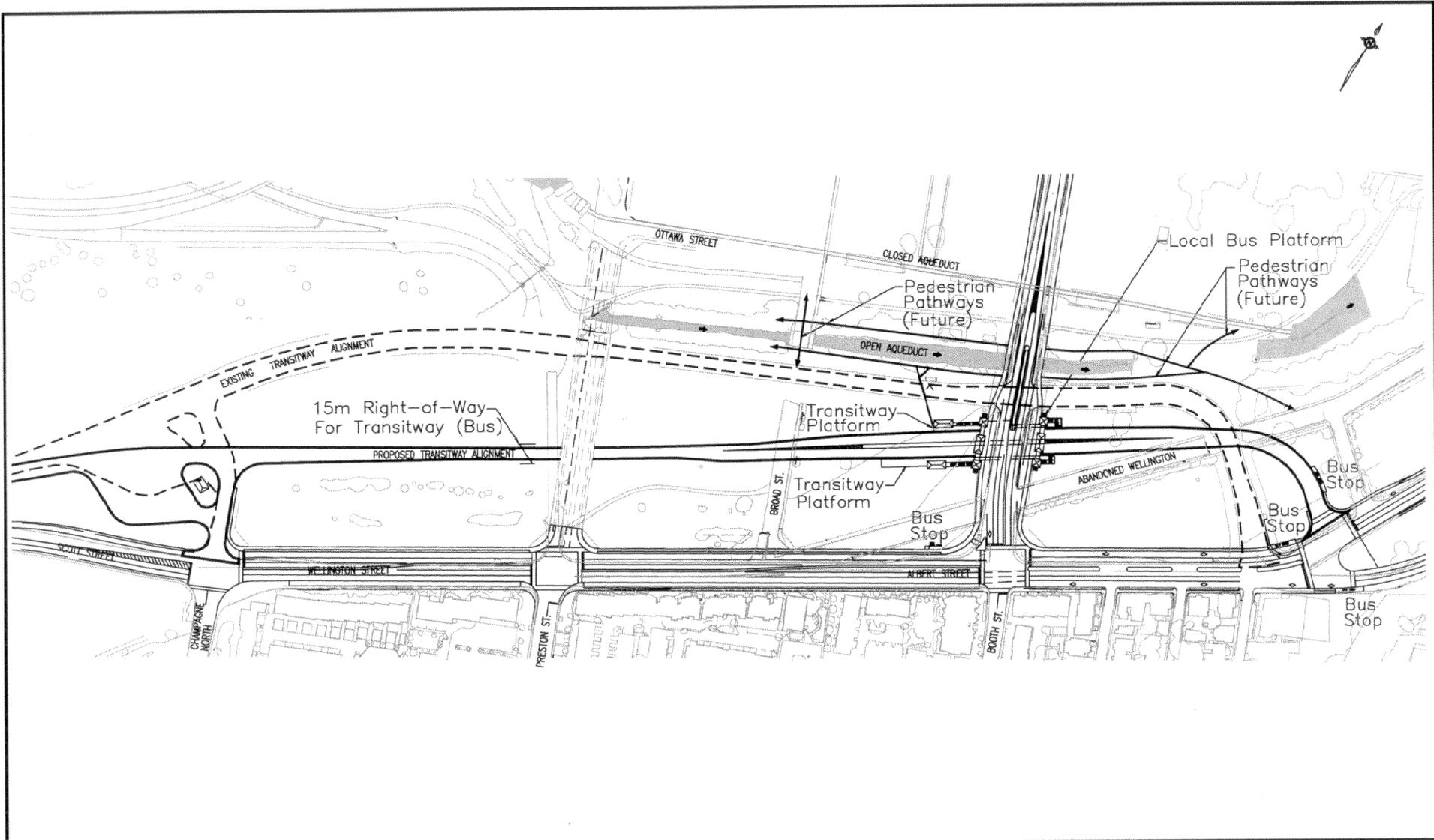
With the approval of the functional design, the Land Agreement can be fully executed. The land required for Light Rail is not part of the Land Agreement, however there is an understanding that the additional land would be transferred to the Region at no cost.

If Light Rail is to be extended through LeBreton Flats to the downtown, more detailed planning work will have to be undertaken, including an Environmental Assessment and an Official Plan amendment.

Preliminary and detailed design of the Transitway and grade-separation can be initiated once funding is in place.

*Approved by  
N. Tunnacliffe, MCIP, RPP*

VC/



EXISTING AND PROPOSED WEST TRANSITWAY ALIGNMENTS  
 WEST TRANSITWAY FUNCTIONAL DESIGN

FIGURE  
 1

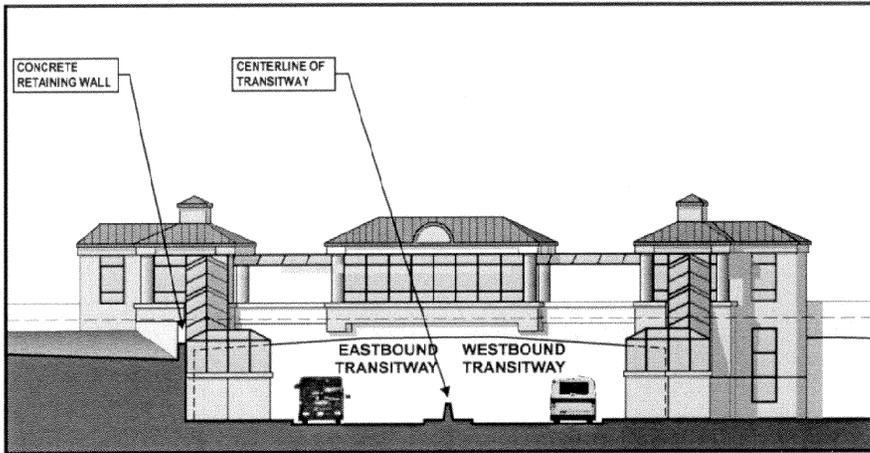


Figure 3a: Elevation - Northbound Shelter

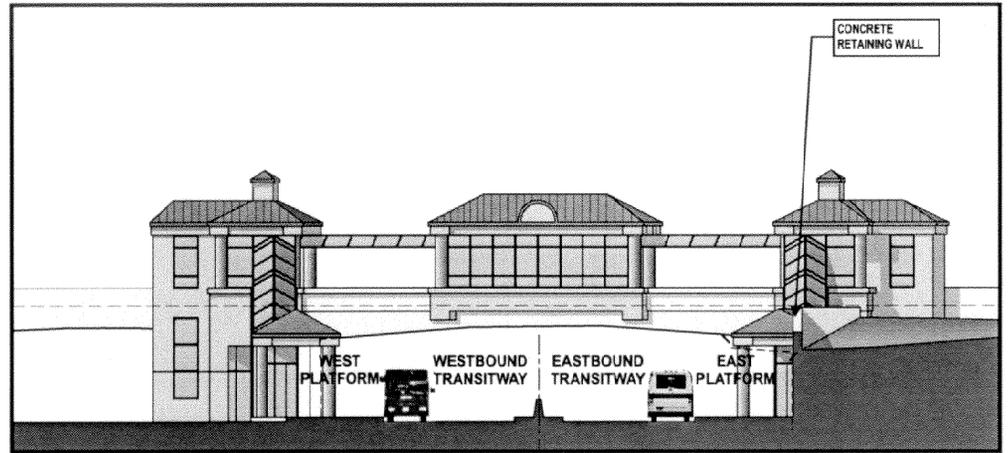


Figure 3b: Elevation - Southbound Shelter

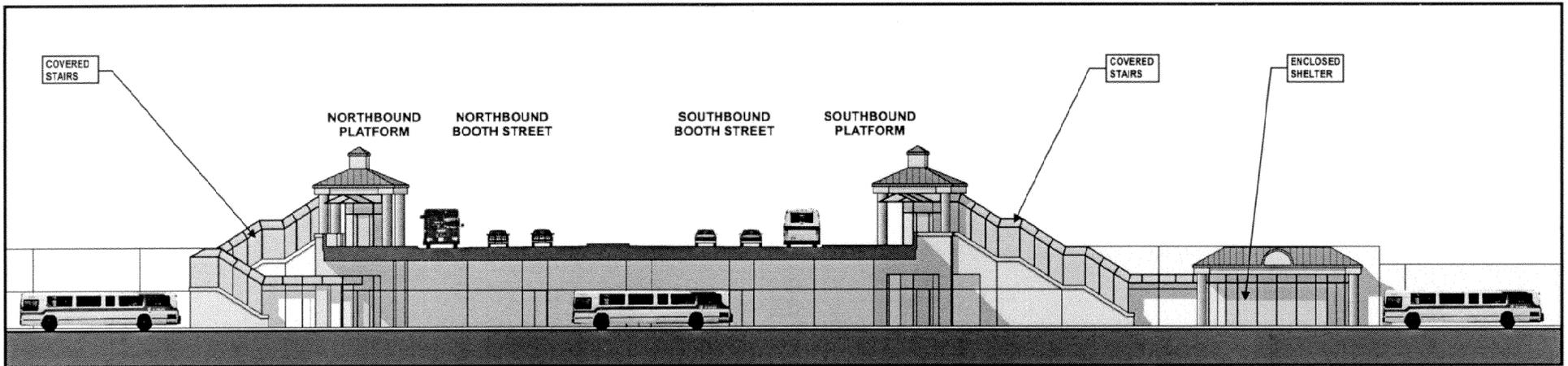


Figure 3c: Section Through Booth Street Bridge

<b>DAVID S McROBIE ARCHITECTS INC.</b>	<b>CONSULTANTS</b>  <b>MCCORMICK RANKIN CORPORATION</b> <b>CORUSH SUNDERLAND WRIGHT LANDSCAPE ARCHITECTS</b>	<b>Project</b> <b>RMOC WEST TRANSITWAY LEBRETON STATION</b>	<b>Scale</b> NTS	<b>Drawing No.</b>  Fig. 2
		<b>Drawing</b> SECTIONS AND ELEVATIONS THROUGH TRANSITWAY STATION	<b>Drawn</b> RJM	
		<b>Date</b> June 1, 1999	<b>Project No.</b> 97-137	

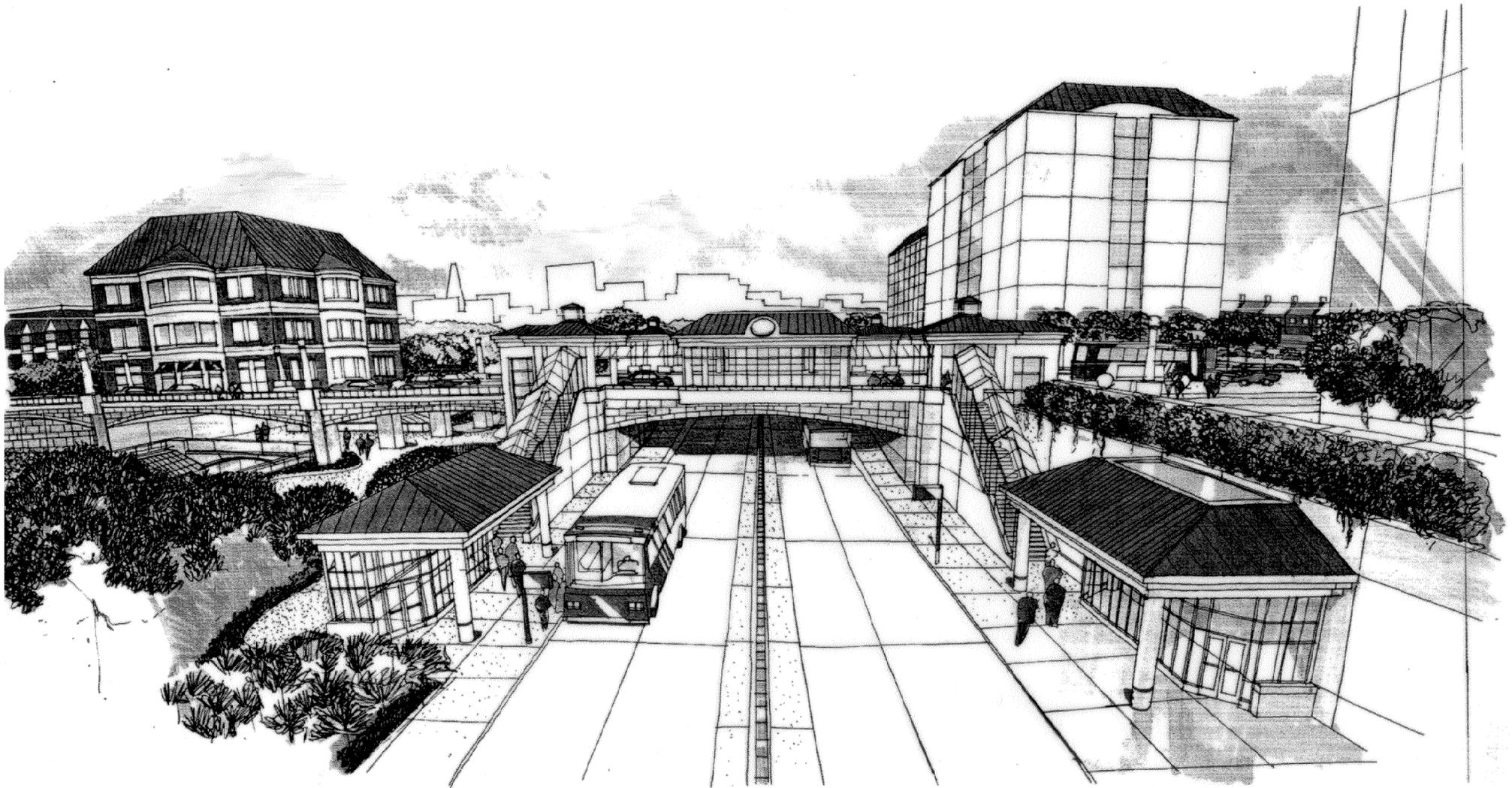
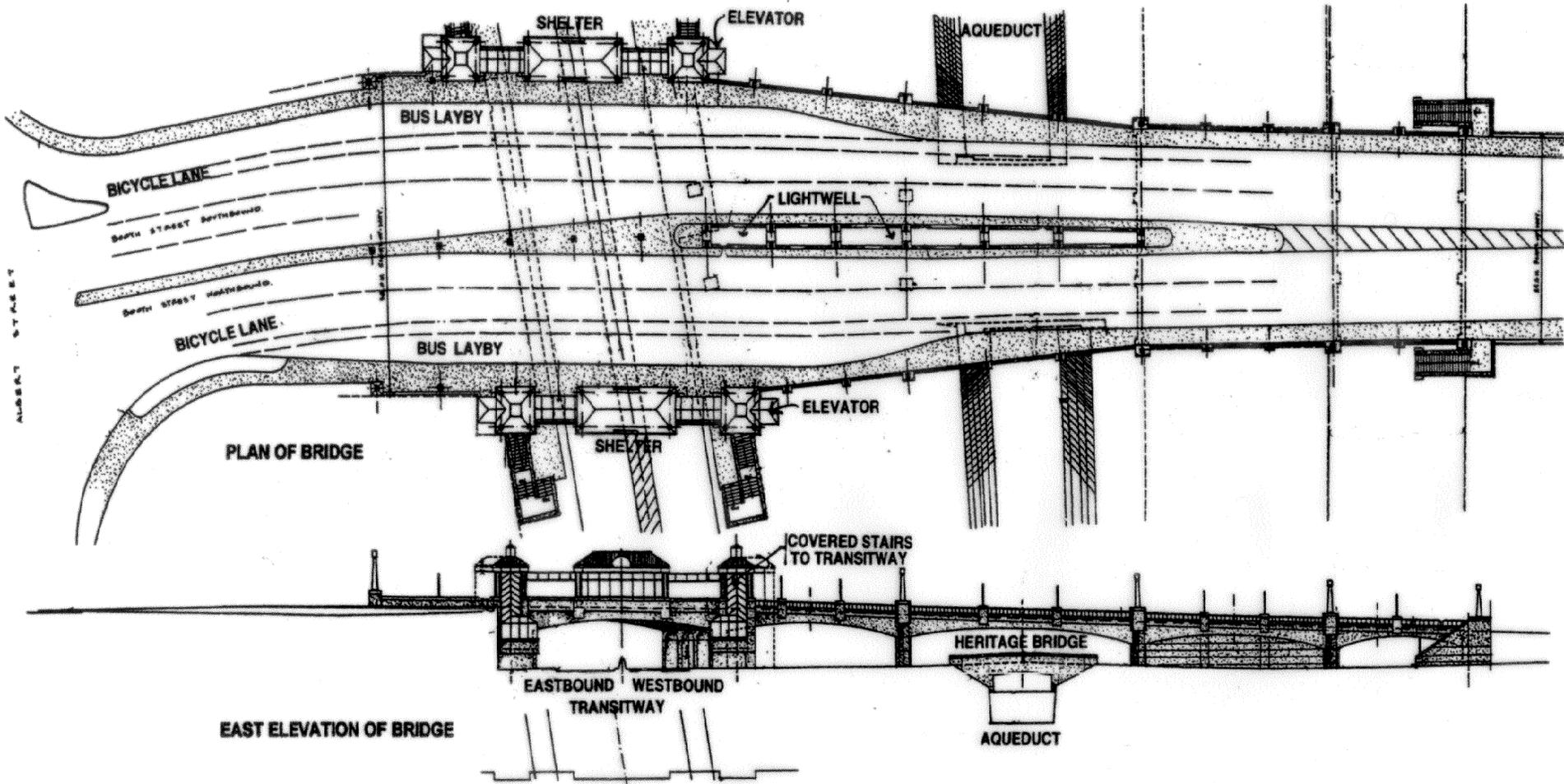


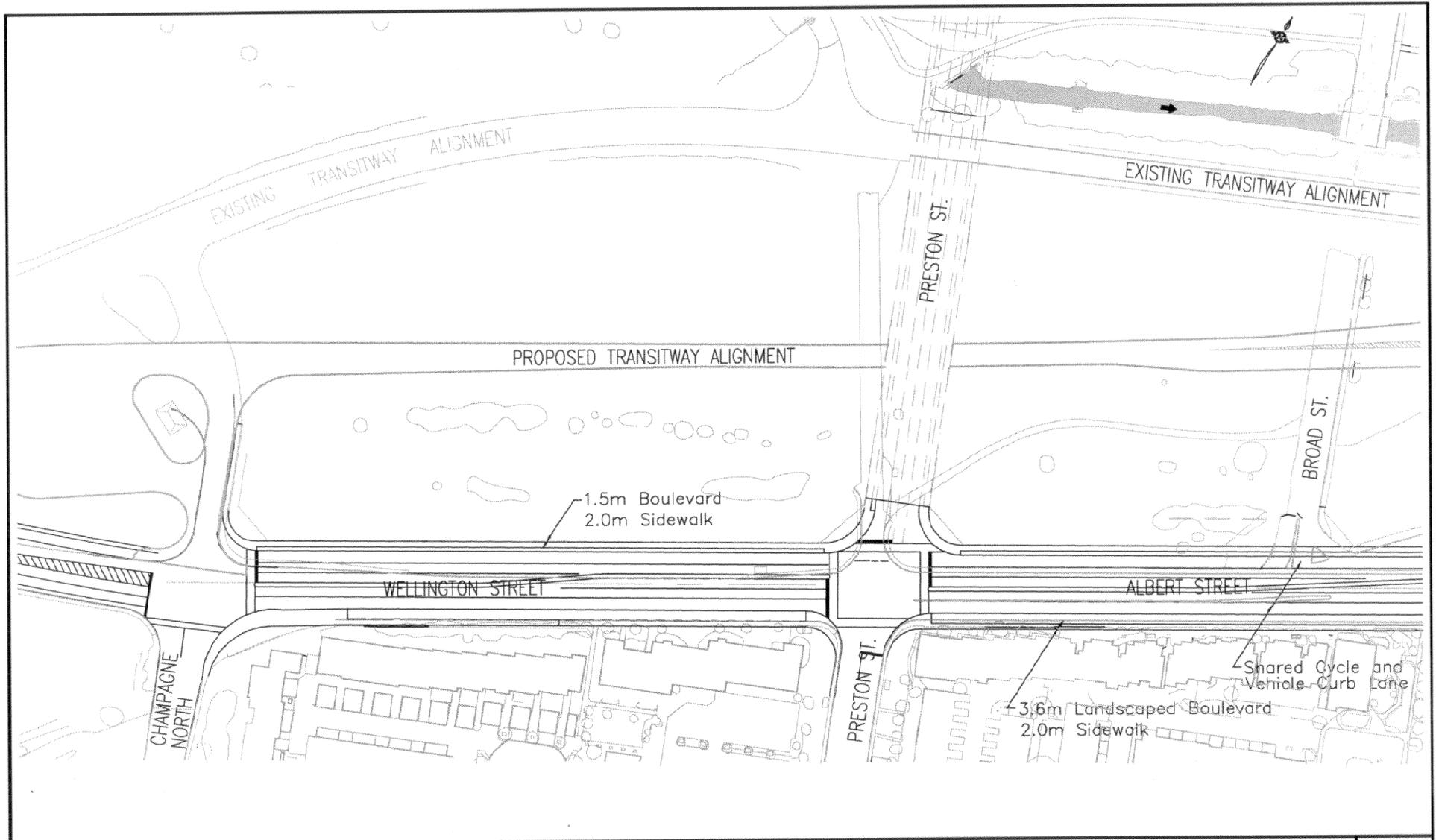
Fig. 3 - VIEW EAST AT TRANSITWAY STATION



**BOOTH STREET BRIDGE**

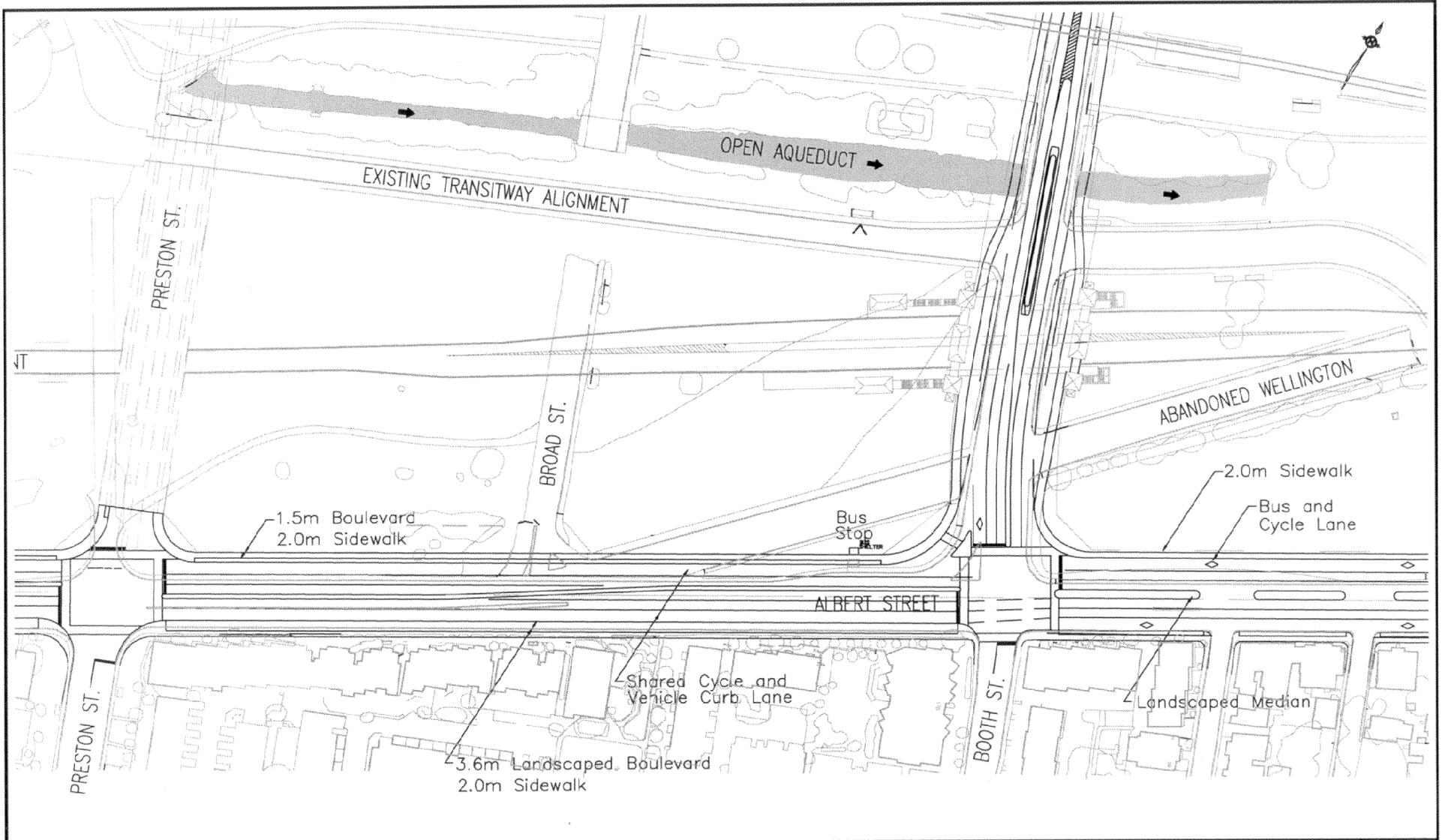
RMOC West Transitway Lebreton Station  
 DAVID S MCGROBIE ARCHITECTS INC SEPTEMBER 1998

Fig. 4 - PLAN & ELEVATION OF BOOTH STREET BRIDGE



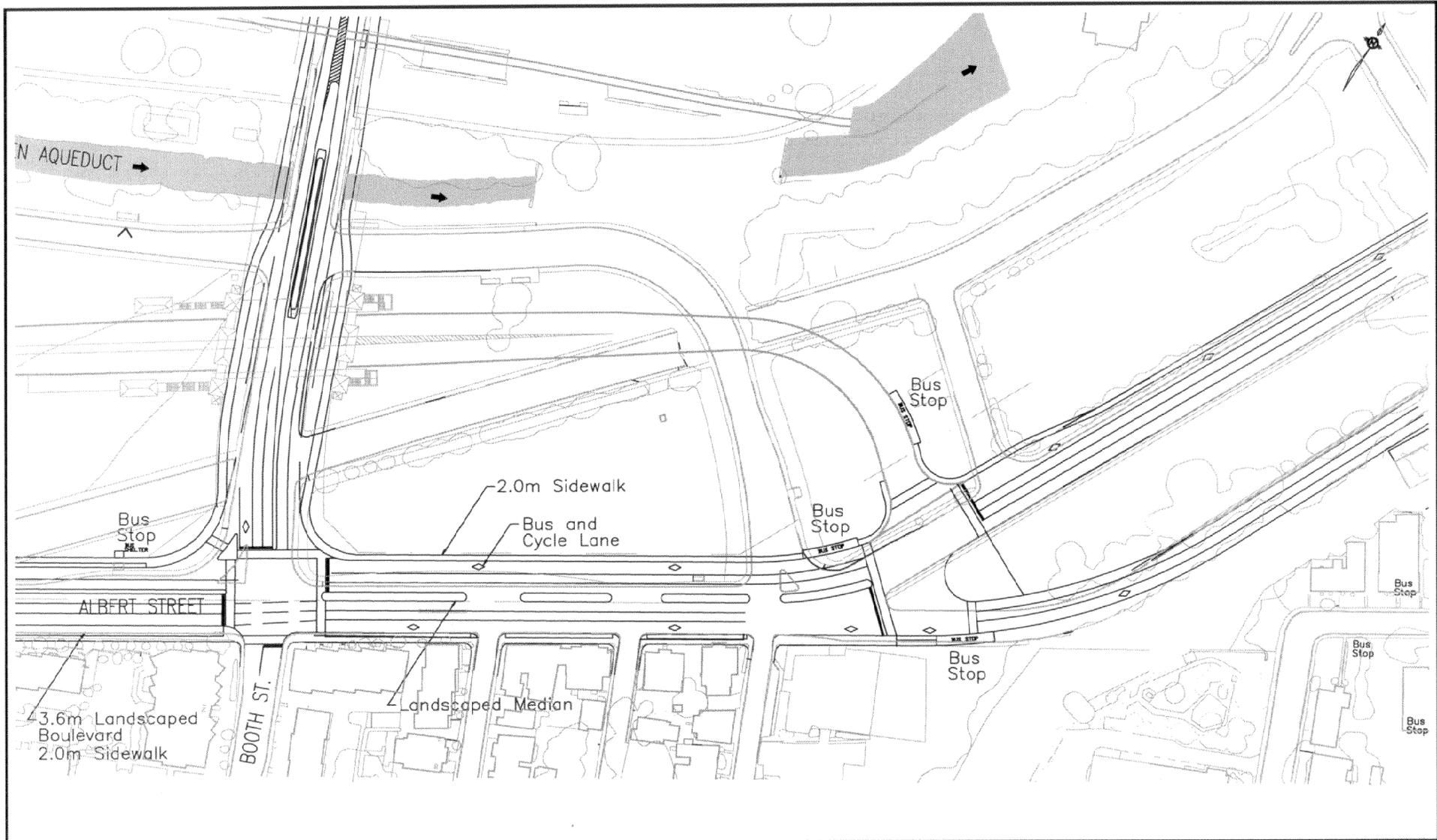
WELLINGTON/ALBERT STREET  
WEST TRANSITWAY FUNCTIONAL DESIGN

FIGURE  
5A



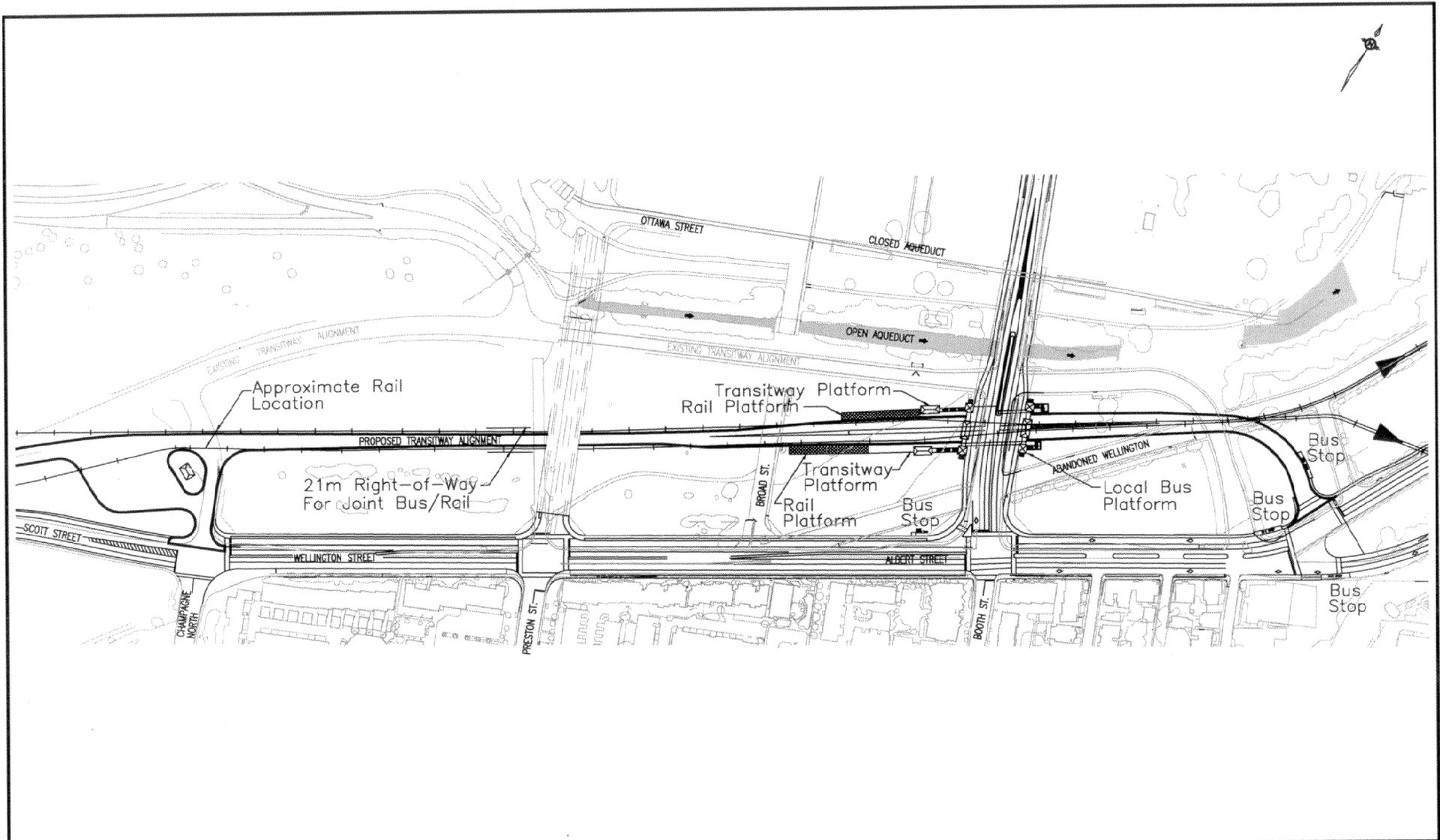
WELLINGTON/ALBERT STREET  
WEST TRANSITWAY FUNCTIONAL DESIGN

FIGURE  
5B



WELLINGTON/ALBERT STREET  
WEST TRANSITWAY FUNCTIONAL DESIGN

FIGURE  
5C



PROPOSED JOINT BUS/RAIL ALIGNMENTS  
 WEST TRANSITWAY FUNCTIONAL DESIGN

FIGURE  
 6

