

Report to:



Victoria Avenue Bridge Detailed Pier Inspection

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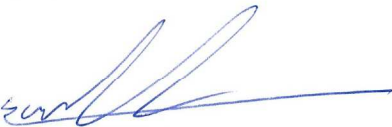
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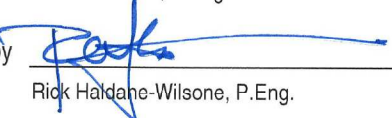


CITY OF SASKATOON

VICTORIA AVENUE BRIDGE DETAILED PIER INSPECTION

FEBRUARY 2006

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REVISION HISTORY

REV. NO	ISSUE DATE	PREPARED BY AND DATE	REVIEWED BY AND DATE	APPROVED BY AND DATE	DESCRIPTION OF REVISION

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1.0 INTRODUCTION

The City of Saskatoon retained Wardrop Engineering to undertake a detailed inspection and condition assessment of the piers and abutments of the 100 year old Victoria Avenue Bridge. Detailed inspection of the exposed concrete of the land piers, river piers, and abutment; in addition, an underwater inspection was performed on the river piers and their foundations. The underwater inspection was conducted by Dominion Divers under the supervision of Wardrop. Core samples were extracted from selected locations on the piers and abutment to assess the condition of the concrete. Core testing included compressive strength, chloride content, and air void analysis, and was undertaken by Clifton Associates Ltd.

To our knowledge the bridge substructure has never been rated structurally. The intent of our assessment is to confirm for the City the condition of the Victoria Avenue Bridge substructure, determine the capacity, and the remaining life span of the foundations. Repair options for both a 30 year and 75 year service life were to be developed. The repair options were modified to match the requirements of the Steel Inspection and Assessment Report. Thus only a 50 year life span repair is discussed in this report.

In addition to the above, the City asked Wardrop to determine if the existing substructure units are suitable to be used with a replacement of the existing superstructure with a new two lane facility designed to current standards.