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TO:	CHAIR AND MEMBERS ENVIRONMENT AND TRANSPORTATION COMMITTEE
FROM:	PETER W. STEBLIN, P.Eng. GENERAL MANAGER OF ENVIRONMENTAL SERVICES & CITY ENGINEER
SUBJECT	MEETING ON DECEMBER 9TH, 2002 ENVIRONMENTAL STUDY REPORT WONDERLAND ROAD SOUTH AND HIGHWAY 401 INTERCHANGE

RECOMMENDATION

That, on the recommendation of the General Manager of Environmental Services and City Engineer, the Environmental Study Report for the Wonderland Road South and Highway 401 Interchange **BE ADOPTED**; it being noted that the selected alternative includes the creation of a new interchange at Highway 401 and Wonderland Road South as shown in Appendix A.

BACKGROUND

There is currently a full interchange from Wonderland Road South to Highway 402 although no connection to Highway 401. The Long Term Corridor Protection Study recommended the creation of an interchange at the 401 to accommodate anticipated growth in the area. This project has been proposed as a Provincial Superbuild candidate.

URS Cole Sherman was retained by the Ministry of Transportation in November of 2000 to conduct a Preliminary Design for the Highway 401 corridor from 1km west of Colonel Talbot Road to 1km east of Highbury Road. This study is considering future needs for the corridor including new interchange configurations at all existing connections.

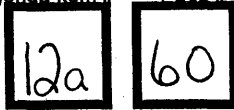
The City expanded the scope of this project through URS Cole Sherman to complete the Class Environmental Assessment and a Preliminary Design for the creation of a new interchange at Wonderland Road South and Highway 401.

The first public meeting was held in April of 2001 and the second was held in September of 2001. As well, special meetings were held, when necessary, with affected agencies and groups.

Design Alternatives

The following 5 interchange configurations were considered during the study process:

- A "Parclo A-4" with Morrison Road intersecting with Manning Drive east of Wonderland Road South
- A "Parclo A-4" with a shift in the horizontal alignment of Wonderland Road South to the west.
- A "Parclo A-4" with a shift in the horizontal alignment of Wonderland Road South to the east.
- A "Parclo B-4" with Manning Drive being realigned as well as having Morrison Road intersect with Manning Drive east of Wonderland Road South.
- A "Diamond" with Manning Drive being realigned. Also having Morrison Road intersect with



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Manning Drive east of Wonderland Road South.

Selected Alternative

The "Parcel A-4" with Morrison Road intersecting with Manning Drive east of Wonderland Road South was selected based on the following justification:

- Best matches alignment of Wonderland Road South
- Minimizes impacts to properties
- Comparatively lower construction cost
- Provides good site distance and safe ramp configuration

The selected alternative also suggests the widening of Wonderland Road South to 4 lanes to connect to the new interchange. The need for four lanes will not be evident for many years, therefore a two lane connection is adequate at this time. Wonderland Road South from Exeter Road south to Highway 402 will warrant widening to four lanes prior to the section between Highway 402 and Highway 401.

Major Issues and Mitigation

1. Property Impacts

The initial alternatives were modified, due to public concern, to minimize the impact of realigning Manning Drive and Morrison Road. Since the City now owns the property at the southeast quadrant of the interchange, it was possible to reduce impacts to two other properties.

2. Noise Impacts

The implementation of the selected alternative will not create a noticeable increase in noise levels, therefore no attenuation is recommended.

3. Impacts to Municipal Drains

There are two municipal drains that will be impacted. The Courtney Drain will require 100m of realignment and the Number 1 Highway Drain will require a culvert extension. Both drains will be reconstructed in a manner that protects aquatic life and vegetation. Erosion and sediment controls will protect the drains from sedimentation during and after construction.

4. Impacts to Wells

Existing wells within the project area will be tested for quality and hydraulic capacity prior to construction. They will be monitored during and after construction to ensure any impacts are mitigated.

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Preliminary Cost Estimate

The following chart represents preliminary cost estimates based on the selected alternative. The 2003 budget and subsequent years' budgets should reflect these estimates. During completion of the detailed design, the estimates should be updated based on tender items and quantities.

Item	Interchange and improvements to Wonderland Road South
Interchange	\$ 8,000,000
Wonderland Road Improvements	\$ 500,000
Utilities	\$ 200,000
Engineering - Detailed Design	\$ 500,000
Property Acquisition ¹	\$ 700,000
Total	\$ 9,900,000

- Notes: 1. Represents property acquisition from four residential properties and one agricultural property.
 2. Provincial Superbuild contribution is proposed as \$3,067,000.00



Conclusion:

The adoption of the selected alternative in this Class Environmental Assessment will address a need in the south-west quadrant of London's Transportation Network.

The principal benefits of the implementation of this project will be

- Improved egress and ingress between Highway 401 West and the west end of the City
- Decrease in travel times accessing Highway 401
- Decrease in congestion on Colonel Talbot Road and in Lambeth
- Increase in safety
- Overall reduction in fuel consumption/vehicle emissions
- Reduced shortcutting traffic on Decker Drive

The construction of this project was projected in the 2002 budget as a 2006 project, although the 2003 budget process may change that projection. The detailed design and property acquisition should start a minimum of two years prior to the construction year.

PREPARED BY:	RECOMMENDED BY:
	
SHANE MAGUIRE, P.ENG. TRANSPORTATION DIVISION MANAGER	PETER W. STEBLIN, P.Eng. GENERAL MANAGER OF ENVIRONMENTAL SERVICES & CITY ENGINEER

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Attachment: Appendix A
 cc. URS Cole Sherman, 75 Commerce Valley Drive East, Thornhill, ON, L3T 7N9

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APPENDIX A

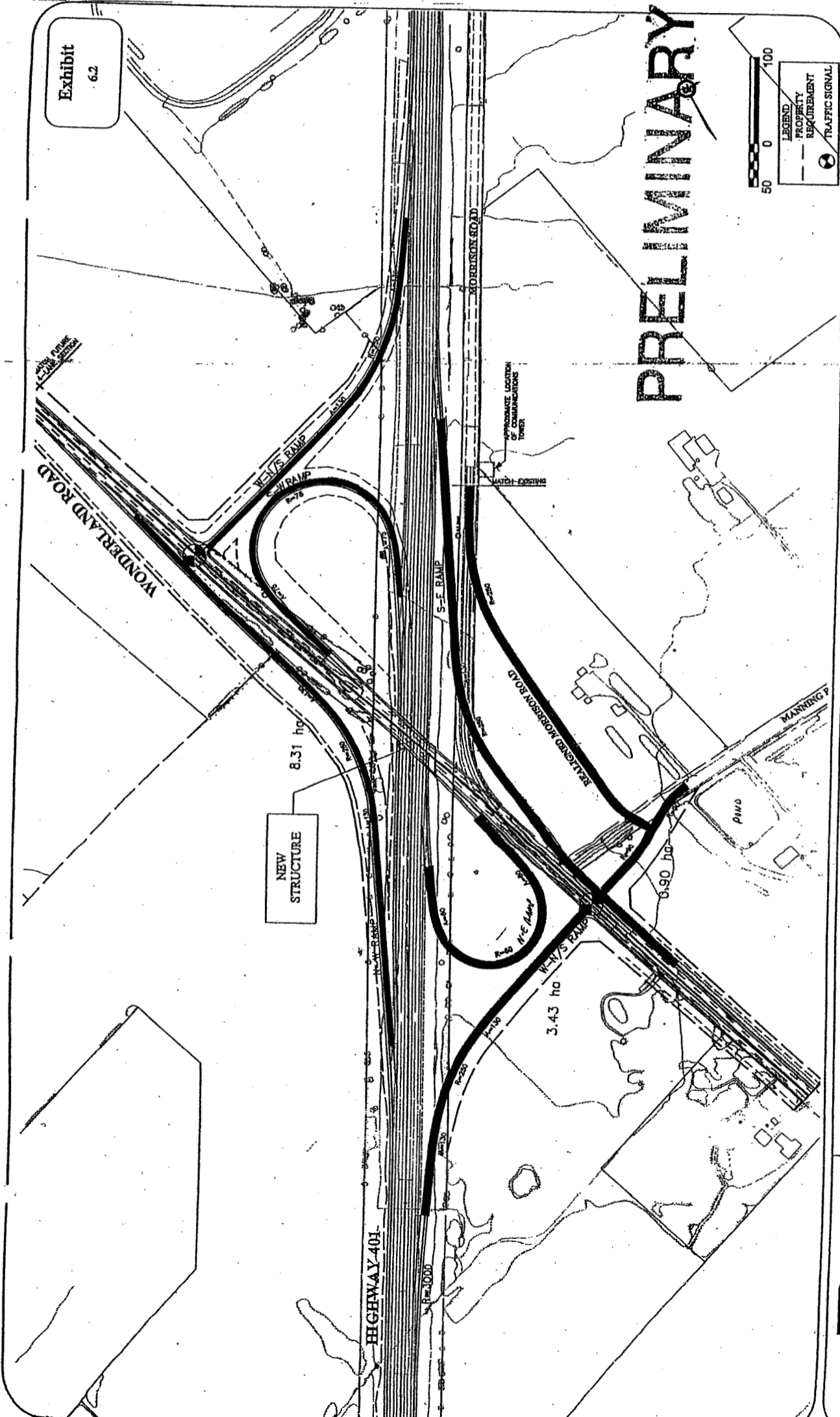


Exhibit 6.2

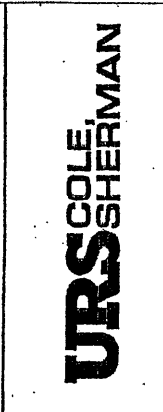
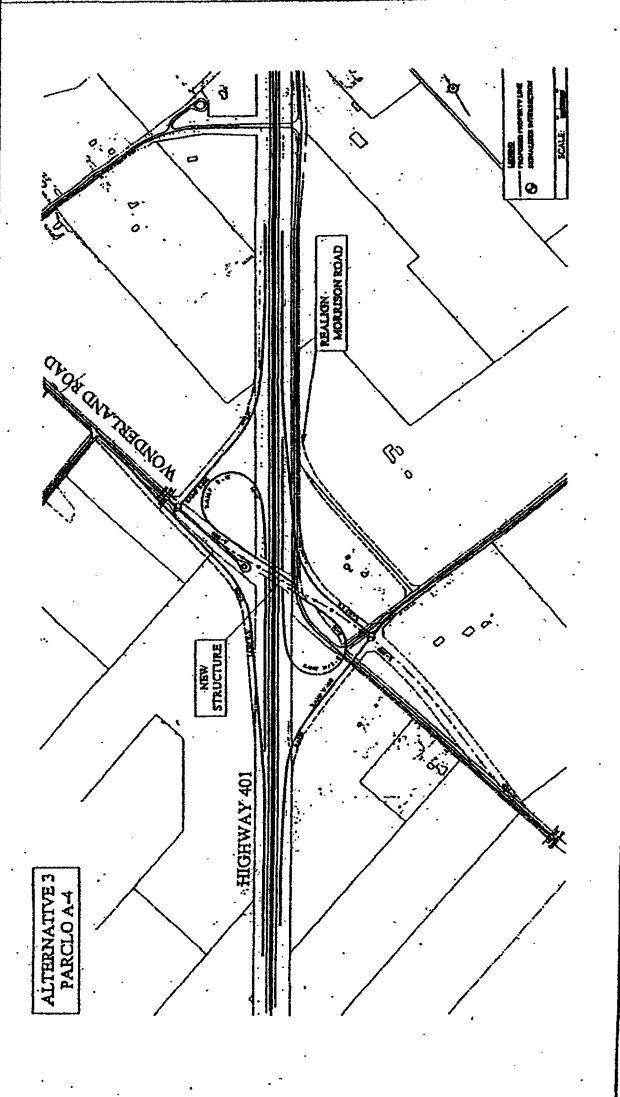
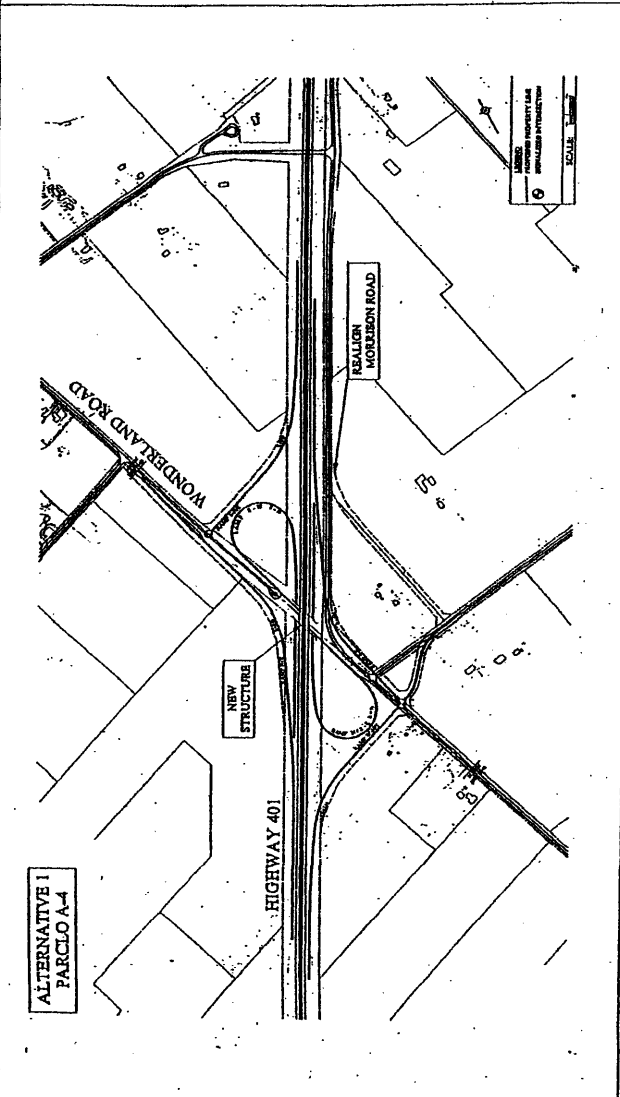
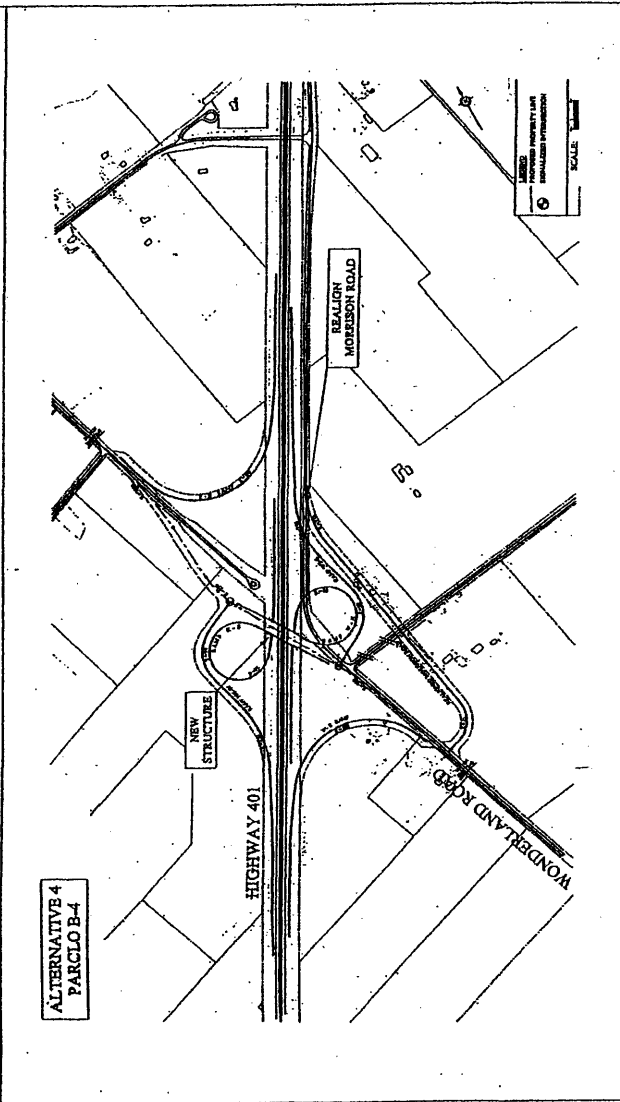
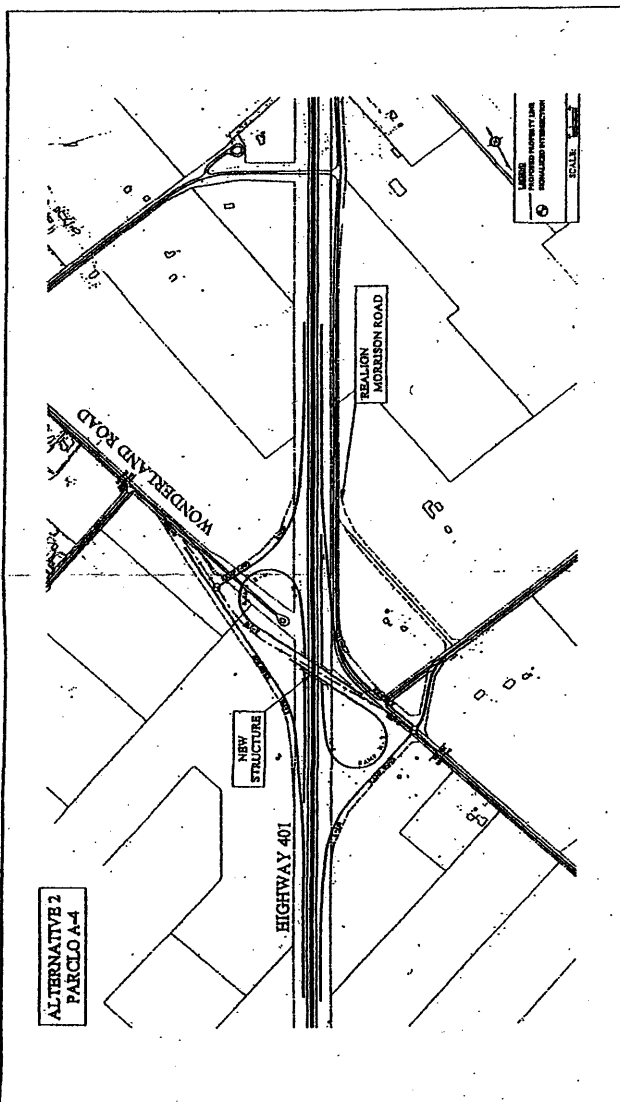
URS
COLE
SHERMAN

Recommended Plan for the
Wonderland Road South / Highway 401 Interchange

Wonderland Road South
Planning Study
Municipal Class Environmental Assessment



APPENDIX A – OPTION 1, 2, 3, and 4

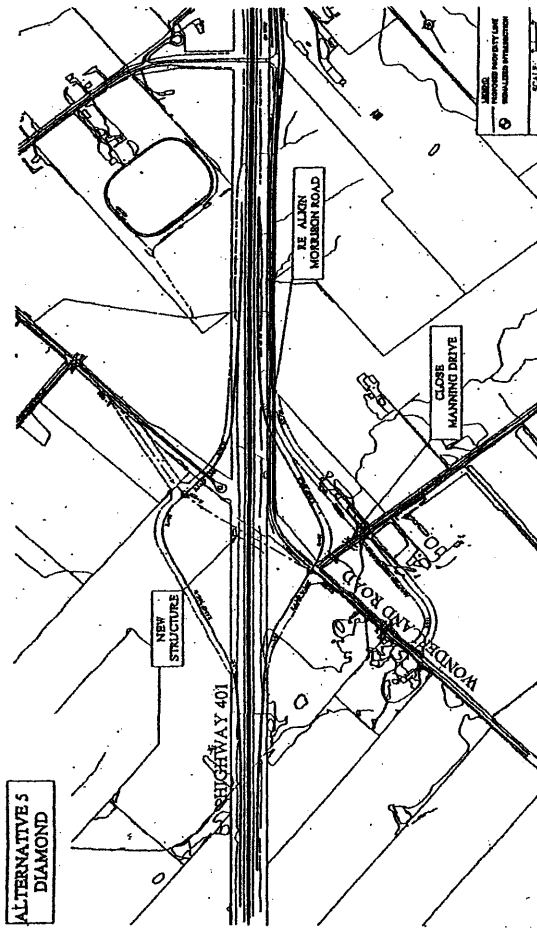


INTERCHANGE ALTERNATIVES AT
WONDERLAND ROAD

G.W.P. 476-89-00
HIGHWAY 401 IMPROVEMENTS PLANNING STUDY
HIGHWAY 4 EASTERLY TO HIGHBURY AVENUE



APPENDIX A – OPTION 5



G.W.P. 476-89-00
HIGHWAY 401 IMPROVEMENTS PLANNING STUDY
HIGHWAY 4 EASTERLY TO HIGHBURY AVENUE

INTERCHANGE ALTERNATIVES AT
WONDERLAND ROAD

