REGIONAL MUNICIPALITY OF OTTAWA-CARLETON REPORT
MUNICIPALITÉ RÉGIONALE D'OTTAWA-CARLETON RAPPORT

Our File/N/Réf. **25** 12-97-R125
Your File/V/Réf.

DATE 6 March 1997

TO/DEST. Co-ordinator Transportation Committee

FROM/EXP. Environment and Transportation Commissioner

SUBJECT/OBJET **CONROY ROAD (REGIONAL ROAD 125) RECONSTRUCTION HUNT CLUB ROAD TO WALKLEY ROAD**

DEPARTMENTAL RECOMMENDATIONS

That the Transportation Committee:

1. **Receive and approve the Project Report and the functional design for Conroy Road as detailed on the presentation drawings;**

2. **Authorize that a public hearing be held by the Transportation Committee for the project as required by Sections 297 and 300 of the Ontario Municipal Act;**

3. **Refer this report to Council for final approval following the public hearing;**

4. **Authorize the Environment and Transportation Department to initiate expropriation proceedings and proceed with acquisition of property to be identified in the detailed design stage;**

5. **Authorize the Environment and Transportation Department to proceed with the relocation of utilities to be determined in the detailed design stage.**

BACKGROUND

Conroy Road, Hunt Club Road to Walkley Road, was established as a project in the outcome of the Environmental Assessment Study of the Transportation Demands To and From the Southeast Sector (TC Report No. 63, 28 September 1994). Funding was later allocated to the Conroy Road project for the preparation of an Environmental Study Report (CSEDC Report No. 10, 26 April 1995). The project was subsequently confirmed as a priority 'for earliest implementation' (TC Report No. 19, 13 December 1995).

At its meeting on 26 February 1997, Regional Council considered Motions 40 and 41 as follows, the latter being carried:

MOTION NO. 40

Moved by Councillor P. Hume
Seconded by Councillor D. Beamish

WHEREAS the Conroy Road project from Walkley Road to Hunt Club Road has been the subject of an Environmental Assessment and is being recommended for upgrading. This project has been identified as a Regional Road priority project for earliest implementation by Council in November 1995.

THEREFORE BE IT RESOLVED that Regional Council allocate $1.1 million from the R.D.C. reserve fund to Project No. 912-30688 for the purposes of carrying out the detailed design and to have the project 'Shelf Ready' in the event further funds become available.

MOTION NO. 41

Moved by Councillor D. Beamish
Seconded by Councillor W. Stewart

RESOLVED THAT Motion No. 40 regarding Conroy Road be REFERRED BACK to the Transportation Committee to be dealt with as soon as staff report on the project can be prepared.

'CARRIED'

The attached Project Report identifies the project details, environmental assessment process, project scope for the preferred design, phasing and project cost estimating of the initial four lane reconstruction.

CONSULTATION

This project is subject to the Environmental Assessment Act and open houses have been carried out as detailed in the Project Report.

Approved by
M.J.E. Sheflin, P.Eng.

PROJECT REPORT

PROJECT NO.: 912-30688

PROJECT: **REGIONAL ROAD 125 (CONROY ROAD) Walkley Road to Hunt Club Road**

PROGRAMME: Capital Works

DESIGNED BY: Delcan Corporation
Consulting Engineers and Planners

CONSTRUCTION DATE: For earliest possible implementation, subject to funding

EXECUTIVE SUMMARY

Background

Regional Road 125 (Conroy Road) between Walkley Road and Hunt Club Road is approximately 2.5 km in length and is a two (2) lane rural cross-section arterial road with a posted speed of 60 km/h.

The majority of the subject section of Conroy Road is located in the City of Ottawa. There is, however, approximately 400 m of the project that extends south of Hunt Club Road. As the City of Ottawa/City of Gloucester municipal boundary is located approximately 100 m south of the Hunt Club Road intersection, the southerly 300 m of the project is located in the City of Gloucester. The project, in its regional context, is shown on Figure 1-1 (Annex A).

Conroy Road has been identified as deficient with respect to roadway capacity and pedestrian and bicycle accommodation. The road carries over 1600 vph in one lane in the peak direction, and there are no sidewalks or bicycle lanes/pathways over the length of the road.

The project (proposed widening) is subject to the planning and design process of the Class Environmental Assessment (Class EA), under the Environmental Assessment Act (Refer to Figure 1-2, Annex B). It is a Schedule "C" project in the Class EA type of projects (construction value exceeds $1.5 M) and therefore requires preparation of an Environmental Study Report (ESR).

There are five (5) phases to the environmental assessment process. Phases 1 and 2 of the Class Environmental Assessment for Municipal Road Projects have been previously completed with the conduct of the Environmental Assessment Study of Transportation Demands to and from the Southeast Sector. The recommendations related to the need for a widened Conroy Road, and its ultimate widening to six lanes, including two HOV lanes, was approved by Regional Council on September 28, 1994. The ESR for the Conroy Road Widening project is therefore only required in support of Phases 3 and 4 of the Class EA process.

Recommendations

It is recommended that Conroy Road be designed for six lanes, with the initial phase being a widening to a four (4) lane urban arterial standard with the following design features:

- two standard lanes in each of the northbound and southbound directions separated by a centre median;
- auxiliary lanes (left and right-turning) lanes at intersections, as warranted;
- delineated bicycle lanes adjacent to the outside curb lanes (one way in each of the northbound and southbound directions);
- provision of a sidewalk along the east side of the roadway as identified by the area municipality;
- provision of a recreation path along the west side of the roadway as identified by the area municipality;
- an at-grade crossing of the CN/CP rail line. The crossing will be protected with low level barricades, flashing lights and warning signs;
- an at-grade crossing of the existing recreation path. The crossing will be protected with traffic signals, bollards, barrier rails and pavement markings;
- bus stops, as required;
- high pressure sodium lighting;
- storm sewer for drainage;
- noise barriers as warranted and subject to agreement with area municipalities;
- landscaping to RMOC standards.

Public Participation

The public involvement in this project has been, and will continue to be based on:

- discretionary and mandatory public meetings at various phases of the planning and design process; and
- Public Hearings as a requirement of the Ontario Municipal Act.

The first mandatory meeting during Phase 3 of the EA process was held on June 22, 1995. Its purpose was to explain the EA Process as it applies to this project and to obtain initial public comment and input on the issues and the alternative solutions related to a widening of Conroy Road.

The second mandatory meeting during Phase 3, was on June 6, 1996 at which public comment was received on the preliminary preferred design, the background analysis/evaluation and its staging.

A detailed summary of the public consultation program and on the public input received at both Phase 3 public meetings is provided in Volume III - Public Consultation Report, of the draft ESR. The main public comment regarding the preferred road design and phasing include:

- most residents thought that the preferred design would address the existing problems related to congestion, pedestrian and cycling needs, and general safety concerns;
- most agreed with the selected alignment for the preferred design;
- four lanes are preferred over six lanes;
- there was no support for HOV lanes as part of the initial roadway construction;
- some residents thought that the widened road would lead to increased traffic, noise, vehicle speed and pollution;
- noise barriers, as shown on the preferred design, are viewed as a necessity;
- some residents thought that the grade-separations of the railway and the recreation path would be desirable (Note: grade-separation is not recommended as part of the preferred design).

Additional public input will be received as follows:

- RMOC Transportation Committee's receipt of this report and the subsequent public hearing as per the Ontario Municipal Act;
- the 30-day public review process following filing of the ESR with the RMOC, MOEE and the area municipalities.

Future Action Plan

This report will be input to and the basis for a Public Hearing held by the Transportation Committee.

Following the Public Hearing process, the ESR for the project will be filed with the Ministry of Energy and Environment and appropriate notification will be given.

Once the review period is over, and assuming no bump-up request, a report will be submitted to Corporation Services and Economic Development Committee and to Council requesting the allocation of funds to proceed with detailed design of the Conroy Road widening.

PURPOSE

The purpose of this report is to:

1. Advise the Transportation Committee of the various phases of the planning and design process which will culminate in the preparation of the Environmental Study Report (ESR) for the reconstruction and widening of Conroy Road.

2. Advise the Transportation Committee of the public comments received, as a result of the Public Information Centres which were held during Phases 3 and 4 of the planning and design process, on 22 June 95 and 6 June 96 respectively, and the Departmental response to these public concerns.

3. Seek approval of the Transportation Committee, in principle, for the following items:

a. Approve the scope of works contained in the attached Project Report.

b. Approve the functional design for the project, as detained On the presentation drawings.

c. Authorize the Engineering and Transportation Department to proceed with acquisition of property identified in the functional design drawings.

d. Authorize the Engineering and Transportation Department to proceed with relocation of utilities to be determined in the detailed design stage.

INTRODUCTION AND PROJECT JUSTIFICATION

Conroy Road, between Walkley Road and Hunt Club Road, has been identified as deficient due to:

1. Severe congestion in peak hours.
2. Safety concerns of road users due to a combination of:
   - no sidewalks;
   - no bicycle facilities;
   - deep ditches;
   - unsignalized intersections at Thurston and at Johnston.

The reconstruction and widening of the roadway from the existing two (2) lane rural section to an initial four (4) lane urban cross-section; and ultimately to a six (6) lane urban cross-section, will:

- provide the needed road capacity;
- reduce traffic congestion;
- provide bicycle lanes in each direction on the roadway;
- provide an adjacent sidewalk and a recreation path;
- provide provisional plant for traffic signal control installation on Conroy Road at the intersections of Thurston Drive and of Johnston Road.

In April 1995, Regional Council appointed Delcan Corporation, consulting engineers and planners, to undertake Phases 3 and 4 of the Environmental Assessment process. These phases include identifying alternative designs, environmental assessment and evaluation, selection of a preferred design and preparation of the Environmental Study Report (ESR).

PLANNING AND DESIGN PROCESS

The planning and design process undertaken for the Conroy Road project addresses both the requirements of the Class Environmental Assessment (EA) for Municipal Roads, as well as the Ontario Municipal Act.

The Class Environmental Assessment (EA) is a planning and design procedure developed to ensure that the potential social, economic, and natural environmental effects are considered in

undertaking certain projects. The Municipal Engineers Association of Ontario received approval of the Class EA documents by the Minister of the Environment on 9 April 1987, which now provides the Municipalities with a Class EA process for road projects. The Class EA was revised in 1993.

The Class EA for municipal road projects provides a methodology for planning projects covered under the EA Act, including obtaining and documenting the necessary public input and also outlines the methodology for preparing Environmental Study Reports (ESR).

Conroy Road is considered a Schedule "C" undertaking and requires completion of an ESR.

The process generally consists of the following phases as summarized in Figure 1-2 (Annex B):

1. Project Need and Justification.
2. Identify and Evaluate Alternative Solutions and Select the Preferred.
3. Identify and Evaluate Alternative Design Concepts, Select the Preferred Solution and prepare Draft ESR.
4. Environmental Study Report (ESR).
5. Detailed Design including Drawings and Tender Documents.
6. Construction and Monitoring.

To date, Phases 1 to 3 of the process are complete. The Environmental Assessment Study of Transportation Demands to and from the Southeast Sector satisfied Phases 1 and 2, and its recommendations regarding Conroy Road were approved by Regional Council on September 28, 1994. Phase 3, leading to the draft ESR has recently been completed.

In the Conroy Road corridor, the sensitive environmental attributes have been inventoried, the alternatives developed, reviewed and commented on, a functional design prepared, and two public open houses have been held. Following RMOC Transportation Committee review and completion of the public hearing and Regional Council approval, the ESR will be finalized incorporating any changes required as a result of the public review. The ESR will then be filed with the Regional Clerk, as well as the Clerks of the City of Ottawa and the City of Gloucester and with the appropriate area libraries. If public concerns regarding this project cannot be resolved, any person may request that the project be "bumped up" to an individual Environmental Assessment. Should there not be any concerns expressed within 30 days of filing the ESR and notification thereof, the project can proceed in accordance with the functional design and ESR.

EXISTING CONDITIONS

1. Roadway

The Conroy Road widening project area extends from the north side of Walkley Road to a point approximately 400 m south of Hunt Club Road. The project's overall length is approximately 2.5 km. The project is predominantly located within the City of Ottawa except for the southerly 300 m which is in the City of Gloucester.

The existing roadway consists of a two (2) lane rural arterial providing single lane service in the north-south directions. The posted speed limit is 60 km/h.

There are six (6) major intersections on Conroy Road through the study area. These are at Walkley Road, St. Laurent Boulevard, Thurston Drive, Johnston Road, Lorry Greenberg Drive, and Hunt Club Road. The Thurston and Johnston intersections are not signalized, the others are signalized. At the signalized locations, left-turn lanes are provided on Conroy Road as appropriate. On the northbound approach to Walkley Road, double left-turn lanes are provided.

There are three (3) major non-roadway facilities that cross Conroy Road. A major Ontario Hydro corridor extends east-west across the corridor and is located between St. Laurent Boulevard and Thurston Drive. A CN/CP rail line (two tracks) extends at-grade across the corridor and is located between Thurston Drive and Johnston Road. The primary recreation path linking Greenboro to Hunt Club Park extends at-grade across the corridor and is located between Lorry Greenberg Drive and Hunt Club Road.

Surface drainage in the corridor is provided for by open ditches. The ditches ultimately discharge to the Eastern Community Trunk Sewer (ECTS) which crosses Conroy Road at Johnston. The ECTS eventually outlets to McEwan Creek approximately 3 kilometres east of Conroy Road. McEwan Creek in turn flows into Green's Creek which flows into the Ottawa River.

No specific stormwater quality (treatment) mechanism currently exists in the drainage system for this corridor. It should also be noted that surcharging will occur in the ECTS for 5, 10 and 25-year storm events due to existing capacity deficiencies. The Conroy Road drainage area, however, is not the cause of this potential problem, as it is only about 1 percent of the ECTS drainage area.

2. Land Use

There is a wide variety of land use along the corridor. Adjacent to the north of Walkley Road is the Alta Vista Parkway corridor lands. It is currently open space onto which backs single family residential neighbourhoods.

From Walkley Road south to the railway tracks is predominantly the Ottawa Business Park. It is a low-density business campus of primarily commercial and office uses. On the west side of Conroy Road, opposite the Thurston Drive intersection, is the RMOC snow dump. The Ontario Hydro corridor also extends east-west through this area.

South of the Ottawa Business Park are the railway lands and open space owned by the NCC. The railway lands consist of two tracks crossing the Conroy Road corridor, two access roads extending westward into the railway marshalling yard, and the marshalling yard itself. The NCC lands on the east side of Conroy Road accommodate the Thunderbird Golf and Go-Karts as well as grassed and forested areas.

South of the railway corridor on the west side of Conroy Road is primarily undeveloped open space comprised of the previous Inner Ring Road corridor and what is commonly known as the Zaidan lands. Residential development of the Zaidan lands is commencing in 1997.

South of the NCC lands on the east side of Conroy Road is a short stretch of vacant land currently designated for industrial and residential development.

The remainder of the corridor south to Hunt Club Road is bounded by existing residential development, but with three exceptions. They are all on the east side and include Fire Hall #14, a small commercial plaza and a public school. Regarding the residential development, approximately 53 homes currently back directly onto the existing Conroy Road right-of-way.

Immediately south of Hunt Club Road, there is an old brick home in the southeast corner of the intersection and an ESSO Convenience Centre in the southwest corner. South of these uses, and within the City of Gloucester, is the NCC Greenbelt.

3. Traffic Conditions and Operational Concerns

Sections of Conroy Road carry 1600 vph per lane in the peak hour which is at or beyond, the capacity of this two-lane roadway. In the morning peak hour, vehicle queues have been observed to extend from St. Laurent Boulevard south two kilometres to Hunt Club Road.

The combination of lack of road capacity, lack of pedestrian and bicycle facilities, and lack of traffic signal control at the Thurston and Johnston intersections, results in a very undesirable driving environment through the study area.

4. Pedestrian, Cyclist and Motor Vehicle Safety

Conroy Road is designated as a *Primary Cycling Route* in the Regional Official Plan. There are currently no sidewalks or bicycle facilities along the Conroy Road corridor. A paved shoulder is provided in both directions between the traffic lane and the ditch. It is used by pedestrians and cyclists.

Bus stops are provided at intersections along Conroy Road; however, not all intersections are signalized (i.e., at Johnston and at Thurston). Therefore, pedestrians have to cross unprotected at these locations. The lack of traffic control signals at these two locations can also cause significant delays for turning vehicles.

The existing recreation path that crosses Conroy Road south of Lorry Greenberg Drive is a signalized crossing and is monitored by school patrols during peak school periods. Over a 24-hour period, as many as 200 pedestrians/cyclists have used this crossing.

The CN/CP rail crossing is signalized and has gates. Current train traffic is comprised of two to three local switching manoeuvres a day, down from the seven to eight daily train movements that occurred in 1995. With the reduction in both train volume and length of train, vehicle delays at the track crossing have been significantly reduced. The railway companies have indicated there is no potential for future growth in train volumes.

With respect to reported accidents, there were 182 motor vehicle-related accidents from January 1, 1992 to June 30, 1995, with the highest accident location being the Conroy/Walkley intersection.

5. Socio-economic Environment

The existing Conroy Road corridor has a variety of land uses - residential, commercial, retail, recreational, industrial and open space - along its length. The many needs of these uses, combined with the volume of traffic along Conroy Road, the lack of sidewalks, the lack of bicycle facilities and the lack of traffic signal control at two major collector road intersections, produces a somewhat people-hostile environment.

The present two-lane road, with its lack of capacity to accommodate existing peak hour, peak direction traffic volumes, causes traffic delays, increased travel time and increased accident potential which, in combination, have an adverse affect on the socio-economic community in this area.

6. Topography

Generally, the landscape of the study area is flat and has been greatly modified by urban development. The southernmost point of the study area is a high point from which there is a view of the whole study area to the north. McEwan Creek is the only watercourse in the study. It causes no significant topographic changes and can be dry at various times of the year.

7. Heritage Resources

There are no known heritage resources located within the project limits.

8. Archaeological Resources

A Stage 1 and Stage 2 Archaeological Assessment was completed for the study area.

The only structural remains from the pre-development agricultural period within the study area is the former Paterson House located at the southeast corner of the Conroy/Hunt Club intersection.
No registered archaeological sites are present within the study area; however there were four sites that were identified as having archaeological potential which resulted in Stage 2 test pitting. The only test results of note were for the site in the southwest quadrant of the Walkley/Conroy intersection. This is the site of the historic “Spratt home” and

"Hedgedale Dairy Farm". The test pitting produced positive evidence of one structure and possibly a second.

9. Agricultural Capacity

Agricultural lands are not present within the project limits.

10. Natural Environmental Features

(a) Ecological Features: There are a variety of natural environmental features within the project area. Those features identified as having valued ecological components include:

- any area having locally significant wildlife habitat;
- the Conroy Swamp;
- the McEwan Creek.

These exist as follows. South of Thunderbird Golf and Go-Kart on the east side of Conroy Road is a red ash woodlot which is of value for the east-west movement of species of birds and mammals. This land is zoned for development but is not affected by the proposed widening.

Parts of the Zaidan land located on the west side of Conroy Road south of the tracks accommodates wildlife habitats. This land is zoned for development.

The Conroy Swamp located south of the railway tracks and approximately 550 m to the west of Conroy Road is a significant swamp forest located on a clay substrate. Adjacent lands within the Zaidan subdivision are zoned for development.

Fisheries habitat is present in McEwen Creek. West of Conroy Road the creek is in a natural channel, whereas east of Conroy Road the flow is collected in a catch basin and transported east three kilometres. Fish cannot migrate upstream because of the outfall at the east end of the trunk sewer. The creek west of Conroy Road is classified as Type 3, which has low capacity for fish reproduction. This section of the creek can be dry for significant periods throughout the year.

(b) Subsurface Conditions: North of Johnston Road the subsurface conditions are primarily thick deposits of sensitive silty clay over deposits of glacial till. Bedrock exists at 10 m to 20 m below ground surface. There is a downward hydraulic gradient in this area.

In the area around Johnston Road there are peat deposits and stiff silty clay over deposits of silty sand and glacial till. Bedrock exists at 5 m to 8 m below ground surface.

South of Lorry Greenberg Drive, there is a combination of sand and silty clay on top of glacial till. Bedrock is 10 m to 12 m below ground surface.

There is a fill area on the east side of Conroy Road north of Johnston Road. There was also combustible gas encountered in boreholes in the vicinity of the CN/CP tracks.

11. Traffic Noise

Computer models are used to predict existing and future noise levels along the corridor. Based on 1995 volumes, noise levels were predicted at thirteen locations throughout the project area. The predicted levels varied from 54 dBA to 68 dBA at these locations. The typical noise level in an urban area well removed from an arterial roadway is 55 dBA.

The impact of the projected noise levels due to additional Conroy Road traffic and the recommended mitigation measures are discussed later in this report.

ALTERNATIVE DESIGN SOLUTIONS

RMOC Council, on 28 September 1994, approved the widening of Conroy Road, ultimately to six lanes, as a priority and preferred solution to the road capacity deficiency in the Southeast Sector. The next task (Phase 3 of the EA process) was to identify alternative designs for the ultimate six-lane roadway.

Two alternative solutions have been identified, with the difference between the two being their alignment (location) north of Johnston Road. There is no flexibility in the location of the ultimate six-lane roadway south of Johnston Road due to the limited right-of-way that exists between the existing residential development on either side of Conroy Road. There is no surplus right-of-way to vary the road alignment.

North of Johnston Road the situation is different due to the wide strip (50 m) of available right-of-way adjacent to the east of the existing road. This provides an opportunity to consider alternative alignments from Johnston Road north to Walkley Road.

Alternative Design 1 is the more easterly of the two alignments. In the vicinity of St. Laurent Boulevard, the widened road is almost entirely east of the existing road. Alternative Design 2 is the more westerly of the two alignments and follows the existing road alignment. The greatest spatial separation of the two alignments is approximately 15 m.

A number of natural environmental, community, economic and technical indicators were established to compare the two design solutions. These included:

- noise;
- safe pedestrian, cyclist & vehicular conditions;
- traffic congestion/operation;
- pedestrian and cyclist routes;

- access to facilities and property;
- land acquisition requirements;
- cost of land acquisition;
- road construction costs;
- landscaping costs;
- air quality;
- greenspace;
- aesthetics;
- compatibility with future Transitway;
- compatibility with future grade separations;
- fish habitat;
- significant natural corridor areas.

Following evaluation, both alternatives compared equally, except for the following three areas in which Alternative Design 1, the easterly alignment, rated higher. Alternative Design 1 was considered more aesthetic due to its gradual curvature and the resultant increased flexibility for landscaping. It also requires less land acquisition, and it would therefore cost less.

The preferred design solution and the rationale for its selection was presented to the public on 6 June 1996, and was well received. There was no comment on the alignment chosen, but there were comments on the elements of the preferred design and the staging of the road. These are discussed later in this report.

FUNCTIONAL DESIGN OF THE PREFERRED SOLUTION

The proposed elements and cross-section of the ultimate six-lane roadway are based on a combination of the projected traffic volumes on the road, the projected train traffic, the direction provided by RMOC Council at the commencement of the study, and the requirements of the City of Ottawa. They are as follows:

- an at-grade crossing of the railway tracks. Train crossings of Conroy Road have decreased from seven to eight per day in 1995 to an average two or three local switcher movements per day in 1996/97. Current train lengths range from three cars (CP) to twenty-five cars (CN). Previous train lengths were substantially longer, often in the fifty to one hundred car range, or more. As a result of this low volume, a grade separation is not technically justified. The preferred design solution, however, has the flexibility to accommodate future grade-separation, if required. Evaluation to date identified a roadway underpass as preferable, should it ever be required;

- an at-grade crossing of the existing recreation path. The east-west pedestrian/cycle traffic on this path is not sufficiently high to technically justify a grade separation. The preferred design solution has the flexibility to accommodate a future grade separation, if required. Evaluation to date identified a recreation path overpass as preferable should it ever be required;

- an ultimate six-lane roadway with the potential for two of these lanes to be for HOV;

- 2.0 m cycle lane in each direction on Conroy Road located adjacent to the outside curb;
- a 1.5 m sidewalk on the east side of Conroy Road (a City of Ottawa responsibility);
- a 3.0 m recreation path along the west side of Conroy Road (a City of Ottawa responsibility);
- a 5.0 m centre median and 3.0 m boulevards;
- modifications to existing traffic signals and the provision of new traffic signals at both the Thurston and Johnston intersections, when warranted;
- provision of additional turn lanes at key locations to optimize traffic flow, traffic operations and safety;
- bus stops, as required by OC Transpo;
- storm sewers for drainage;
- high pressure sodium street lighting;
- noise barriers at the back of all existing homes that back directly onto the Conroy Road corridor;
- landscaping consistent with the current RMOC guidelines in the Greening Guideline, for Regional Roads in Urban Areas.

Other Major Design Elements

Walkley Road: It is proposed to provide another westbound to southbound left-turn lane on Walkley Road at Conroy Road resulting in double left-turn lanes at this location. This is a capacity (level of service) requirement and will necessitate widening on the north side of Walkley for some distance on both sides of the Conroy intersection.

St. Laurent Boulevard: It is proposed to provide dedicated right-turn lanes on both the St. Laurent Boulevard approaches to Conroy Road. This would result in a left-turn lane, a through lane and a right-turn lane on these approaches to Conroy Road. This is a road capacity/traffic operations improvement.

Access to Existing Office/Retail Development

Three existing office/retail buildings located north of Thurston Drive currently have all-movement driveway connections to Conroy Road. With the widened road, median breaks will not be

provided at these driveway locations, thus preventing left turns in and out. Alternative access is, or will be, provided to these developments to accommodate their access/egress needs.

South of the railway tracks, existing all-movement access/egress to Thunderbird Golf and Go-Kart is proposed to be restricted to right-in/right-out only. With respect to Fire Hall #14, a median break will be provided to accommodate all movements.

Noise Barriers/Privacy Fences

Privacy fences currently exist at the back of all existing residential development that backs directly onto Conroy Road. For the projected 2009 traffic conditions, there are no locations where a 5 dBA increase is experienced; however, there are locations where a 70 dBA is reached. A number of other locations will have noise levels in the 68 dBA to 69 dBA range. Although these latter locations do not warrant noise attenuation as they do not meet either the 5 dBA increase or 70 dBA level, noise barriers are recommended due to the combination of a very high noise level, and consistency in landscaping and fencing treatment.

Street Lighting

It is proposed to install high pressure sodium lights; however, the type of luminaires and the location of street light poles is dependent, in part, on the initial four-lane staging, and will require further discussion with the area municipality and the hydro authority.

Property Requirements

The Regional Official Plan designates this section of Conroy Road with a right-of-way protection of 40 m which reflects an anticipated ultimate roadway capacity for six lanes. Due to the combination of: the RMOC requirement for bicycle lanes in each direction on Conroy Road, the City's requirement for a recreation path along the west side of Conroy Road, and the elevation of adjacent lands, there are some locations along the corridor where more than a 40 m of right-of-way is required. In these instances/locations, the additional right-of-way requirements have been identified for acquisition by the RMOC.

At this functional design stage, these property requirements have been identified on the presentation drawings. These requirements will be further refined during the detailed design stage and reference plans will be prepared by the Regional surveyor before acquisition of property can be initiated.

Generally, the property requirements related to the preferred Design Alternative 1 are all west of the existing right-of-way and included property from the Zaidan lands, property from CN/CP and property from the City of Ottawa (southwest corner of Conroy/Walkley intersection).

STAGING

Analysis of the projected 2009 traffic volumes concluded that a four (4) lane Conroy Road would have the capacity to accommodate the projected volumes at an acceptable level of service. The

additional two lanes (for a total of six) can be added later if/when the need arises. On this basis, an initial phase comprised of four standard lanes is recommended.

The four-lane roadway could have all the same design elements as the ultimate six-lane cross-section, including sidewalk, recreation path, bicycle lanes and turning lanes. The only difference would be the number of north-south through lanes (four versus six). The initial four-lane roadway would therefore have wider boulevards and/or median in which the future two additional lanes would be built.

HOV lanes are not recommended as part of the initial four-lane phase. The appropriateness of HOV lanes as part of either the four-lane or six-lane roadways may be assessed, once the *Transportation Master Plan* is complete and an HOV policy has been developed and approved.

ENVIRONMENTAL EFFECT OF THE PREFERRED DESIGN

While the Conroy Road widening project has the potential to have negative effects on the human and natural environment in its vicinity, these effects will be mitigated with prescribed design features and sound environmental management practices, where possible and practical. No "significant" environmental effects (individual or cumulative) are expected to prevail after mitigation.

PUBLIC PARTICIPATION

Public and agency consultation was an integral part of Phases 1 to 4 of the environmental assessment process. With respect to Phases 3 and 4, a Project Communications Plan was prepared to promote clear recognition and consideration of all interested parties, including:

- abutting land owners;
- utility and railway companies;
- general public;
- RMOC and local municipal officials;
- community associations;
- federal and provincial review agencies.
- special interest groups;

In addition to the many meetings and contacts with the affected agencies and municipal government staff and elected officials, two public open houses were held.

The first public open house was held Thursday, June 22, 1995 (90 attendees). The purpose of this meeting was:

- to explain Phases 3 and 4 of the assessment process as it applies to the Conroy Road widening;
- to identify the possible number of future lanes (six) and the potential use of two of these lanes for HOV;

- to discuss the potential elements of a widened road including sidewalks, a recreation path, railway and pedestrian path grade separations and noise attenuation.

The public comments at this first public meeting focussed on the following:

- delays to traffic flow on Conroy Road due to frequent and lengthy trains;
- safety concerns related to walking and cycling on the shoulders along existing Conroy Road;
- need for a north-south bicycle path/lane and a north-south sidewalk;
- too much traffic and not enough lanes;
- no justification for six lanes initially or HOV lanes initially;
- increased noise and pollution due to increased traffic.

These comments were input into the next phase of the study which resulted in identification of the Preferred Design for the Conroy Road widening. The Preferred Design and all the proceeding evaluation and assessment were presented at the second public open house held on June 6, 1996. This meeting had 96 attendees. The new comments were:

- the majority supported the preferred design and staging and felt they had sufficient opportunity to comment on the project;
- some felt the road should not be widened;
- some were displeased that grade separations at the railway tracks and at the existing east-west recreation path were not recommended;
- there was some concern about neighbourhood traffic infiltration into the communities located north of Walkley Road;
- some did not see the need for both bicycle lanes and a recreation path;
- increased noise and pollution remained a concern, as was the proximity of the proposed widening to existing housing.

Response to Public Concerns

These comments were considered by the Department and the following responses provided:

Widening: The road is currently congested in peak periods and is at or beyond its capacity. The combination of existing traffic, background traffic growth and traffic from the developing Zaidan lands necessitates additional road capacity.

Grade Separation: At the railway crossing, daily train movements have decreased from an average of six to seven trains per day (March 1995) down to an average of two to three per day, with the remaining train traffic being local switcher movements, not the long-haul multicar freight trains. Current train lengths range from three cars (CP) to twenty-five cars (CN). Previous train lengths were substantially longer, often in the fifty to one hundred car range, or more.

With there being no likelihood of the train traffic volume increasing, the warrants for railway grade separation are not satisfied. Therefore a grade-separated crossing of the railway tracks is not technically warranted.

At the recreation path crossing of Conroy Road, analysis similarly indicates that a grade separation is not warranted, and in fact, the existing traffic signal control is not warranted; although, it exists. Therefore, a grade separated recreation path crossing is not technically justified.

Neighbourhood Traffic Infiltration: A traffic infiltration analysis was undertaken of projected Conroy Road traffic volumes and the likely potential of additional traffic infiltrating through adjacent neighbourhoods. The analysis results indicated that the proposed widening and increased volumes would likely have the following effects by the 2009 horizon:

- reduce through (non-local) traffic on Lorry Greenberg Drive;

- increase through traffic on Ryder, Harding and Halifax by 15 vph to 20 vph two-way total in the peak hours. This would represent a six percent (6%) increase in traffic on these streets;

- increase traffic on St. Laurent Blvd. north of Walkley Road by 180 vph two-way total in the peak hours. This would represent an eleven percent (11%) increase in traffic on St. Laurent Boulevard.

Each of these effects is considered either *positive*, *not significant*, or *not an issue* from a community impact and a road capacity perspective.

Bicycle Lanes and Recreation Path: Bicycle lanes in each direction on a widened Conroy Road are consistent with the current RMOC policy. The recreation path is a City of Ottawa requirement and will only be provided if paid for by the City.

Increased Noise and Air Pollution: Noise barriers will be constructed along Conroy Road where either a 5 dBA increase is projected or where the 70 dBA threshold is reached. Noise barriers are also being recommended at noise sensitive locations where the project projected sound levels are slightly less than 70 dBA (68 and 69 dBA range). This is because the noise levels are high and there is also merit to having a visually consistent landscaping and fencing treatment. Accordingly, noise barriers will be erected at the rear lot line of all existing homes backing directly onto Conroy Road.

Air Pollution: Air quality pollutant levels along Conroy Road were compared to provincial criteria and it was concluded that since the air quality modelling for Conroy Road was conducted using a worst-case scenario, any exceedences would occur infrequently, if at all.

As well, providing additional road capacity would improve traffic flow, which could have a positive effect in reducing emissions.

DETAILED DESIGN/CONSTRUCTION SCHEDULE AND COST ESTIMATE

Detailed design work is scheduled to start in June 1997. Construction will start when funds are made available. Details regarding which four lanes of the ultimate six lanes will be built initially will be resolved in the initial stages of the detail design.

The project cost estimate for construction of the initial four-lane widening (excluding ESR costs) is $12,200,000, broken down as follows:

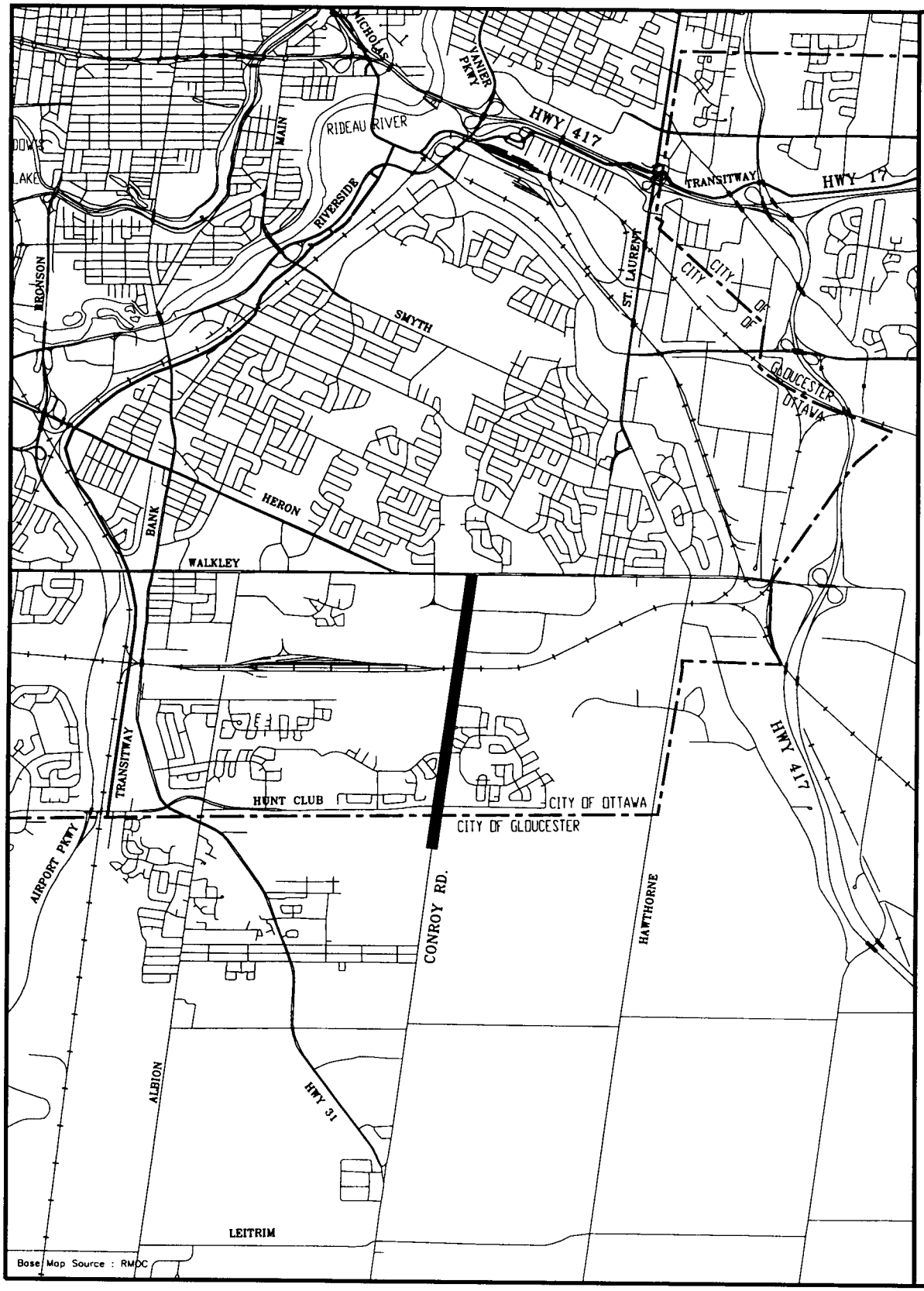
TOTAL PROJECT COSTS OF THE INITIAL FOUR-LANE RECONSTRUCTION - WALKLEY ROAD TO HUNT CLUB ROAD

Component	Estimated Cost (1997 dollars)
	Initial Four-Lane Cost - Walkley to Hunt Club -
Grading, Drainage and Paving	$6,270,000
Traffic Plant	$380,000
Roadway Lighting	$730,000
Landscaping	$420,000
At-Grade Railway Signals	$500,000
Subtotal 1 (Construction Cost)	$8,300,000
Engineering - Detailed Design[1] - Contract Administration[1]	$1,100,000 $1,100,000
Property Acquisition[2]	$200,000
Utility Relocation	$450,000
Miscellaneous[3]	$460,000
Subtotal 2 (Additional Costs)	$3,310,000
Contingency[4]	$590,000
TOTAL ESTIMATED PROJECT COST	$12,200,000

Notes:

1. Assumed to be approximately 13% of construction cost.
2. Property acquisition cost is based on land values estimated by the RMOC for budgeting purposes only.
3. Assumed to be approximately 5% of construction cost.
4. Assumed to be 5% of subtotals 1 and 2.

Approved by
Jim Miller, P.Eng.



Conroy Road
Widening
Class Environmental
Assessment

Ottawa-Carleton

FIGURE 1-1
Regional Context of Project

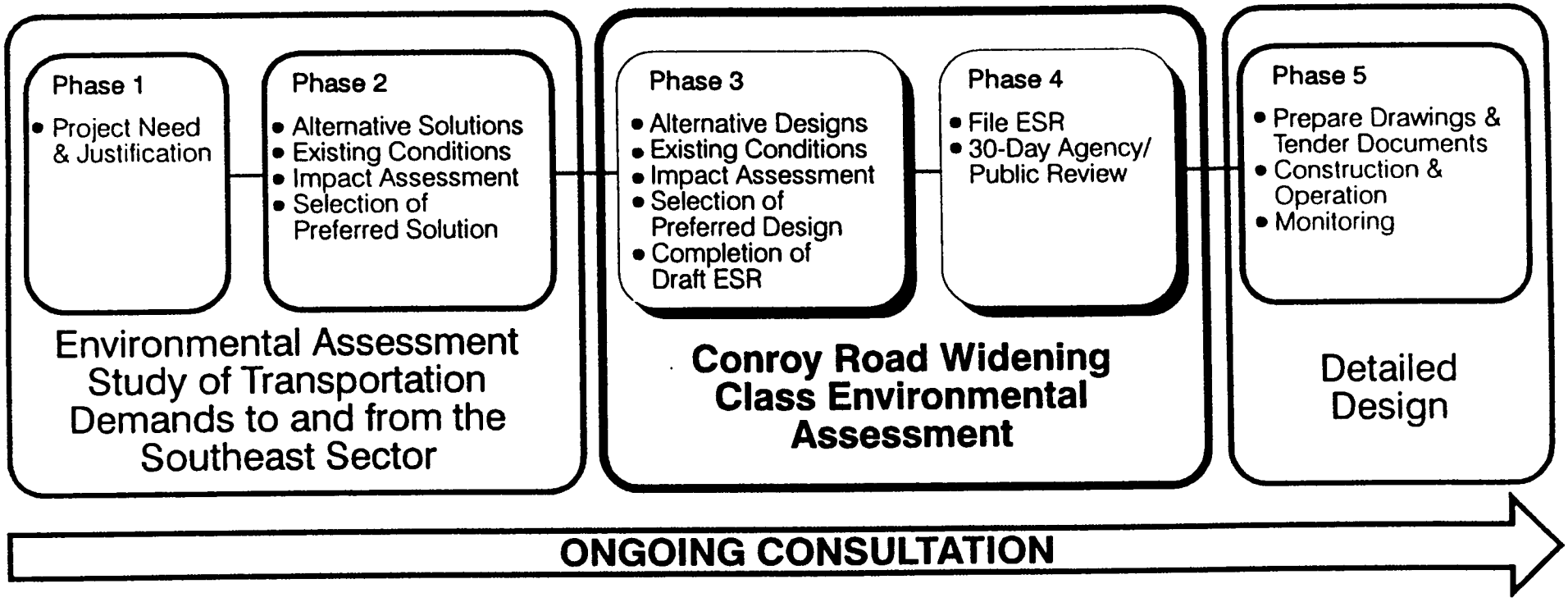
Project Location

N

0 250 500 1000m

DELCAN

FIGURE 1-2
ENVIRONMENTAL ASSESSMENT STUDY PROCESS



ANNEX B