

7. REGIONAL ROAD CORRIDOR DESIGN GUIDELINES

COMMITTEE RECOMMENDATIONS AS AMENDED

That Council:

1. Endorse the *Regional Road Corridor Design Guidelines*, distributed under separate cover, to achieve a more balanced transportation system and livable communities;
2. Circulate the guidelines to Area Municipal Councils in anticipation of the need for design guidelines for urban arterial road corridors in the new City of Ottawa;
3. That if the inner boulevard is less than 1.25m, that every effort be made to widen the boulevard to increase the survivability of turf and trees in this space;
4. That the Walking Security Index be included in the Appendix;
5. That the Council approved Regional Road Corridor Design Guidelines document be placed on the RMOC's Web Site.

DOCUMENTATION

1. Joint Planning and Development Approvals and Environmental and Transportation Commissioner's report dated 7 June 2000 is immediately attached.
2. Light Pollution Abatement Committee submission dated 13 June 2000 follows the report.
3. Citizens for Safe Cycling submission dated 21 June 2000 follows the above noted submission.
4. Extract of Draft Minute, Transportation Committee, 21 June 2000, will be distributed prior to Council and will include a record of the vote.

REGION OF OTTAWA-CARLETON
RÉGION D'OTTAWA-CARLETON

REPORT
RAPPORT

Our File/N/Réf. Your File/V/Réf.	25 47-98-0028
DATE	07 June 2000
TO/DEST.	Co-ordinator Transportation Committee
FROM/EXP.	Planning and Development Approvals Commissioner Environment and Transportation Commissioner
SUBJECT/OBJET	REGIONAL ROAD CORRIDOR DESIGN GUIDELINES

DEPARTMENTAL RECOMMENDATIONS

That Transportation Committee recommend that Council:

- 1. Endorse the *Regional Road Corridor Design Guidelines*, distributed under separate cover, to achieve a more balanced transportation system and livable communities;**
- 2. Circulate the guidelines to Area Municipal Councils in anticipation of the need for design guidelines for urban arterial road corridors in the new City of Ottawa.**

PURPOSE

The purpose of this report is to gain Council's endorsement of the *Regional Road Corridor Design Guidelines* as a tool to achieve a more balanced transportation system and livable communities. The result of a wide consultation process, the guidelines focus on urban arterial roads and village main streets. Under the new City of Ottawa, urban arterials may or may not be referred to as "regional roads". For consistency, the guidelines refer to all major road corridors as "regional road corridors" and are intended to apply to arterial corridors in the new City of Ottawa.

BACKGROUND

The Regional Official Plan includes Council approved objectives to achieve a more balanced transportation system and livable communities. More specifically, the *Regional Road Corridor Design Guidelines* are implementing Section 6.10, Policy 1 and Section 9.5, Policy 6 of the plan

which call for a review of roadway guidelines to ensure that they respect compatibility with adjacent land uses and reinforce Council's preference for walking, cycling and transit use. Staff from Planning and Development Approvals and Environment and Transportation Departments, have worked together over the past two years on the review of various regional road corridors to turn these objectives and policies into design guidelines to assist staff with daily decision making and professional practice.

The Regional Official Plan recognizes that transportation corridors serve many functions in addition to moving vehicles efficiently and safely to their destinations. Roads are the pre-eminent form of public space; they provide a setting for social interaction which can promote neighbourhood cohesion and development. Consequently, the quality of roads as public space affects the quality of life in communities. In addition to their role in providing multimodal mobility and accessibility, regional roads may function as main streets of villages and urban neighbourhoods. Each setting affects the way in which the road is used and how it should be designed and operated.

The *Regional Road Corridor Design Guidelines* cross traditional boundaries between land use and transportation planning. While road design has traditionally focused primarily on mobility and access to adjacent property, the guidelines focus on a broader set of design considerations including principles of community livability, a multi-modal street function and the character of surrounding land uses. The term "regional road corridor" refers to both the arterial road right-of-way as well as the adjacent land uses. In a built-up area, the road corridor includes the face-to-face building separation across a regional road which includes private property outside the road allowance.

The guidelines focus on the function and design of arterials in the urban area and village main streets. Freeways, collector roads, local roads, rural roads, parkways, scenic and entry routes are not addressed in the guidelines.

GUIDELINE REVIEW OBJECTIVES

The objectives of the review were:

1. to recommend design guidelines for various types of regional road corridors which support their public space function, and their compatibility with adjacent land uses and landscape character;
2. to identify means to implement the guidelines.

The guidelines were developed from a review of best practices as well as from a detailed evaluation of existing representative regional roads. Features which work well and others which are not so effective were highlighted.

Guidelines resulting from the review, complement existing standards and guidelines for the design of new and reconstructed roads and of adjacent land uses. The intent is to respect traditional issues of safety, efficiency, capacity, and maintenance while integrating these issues with considerations relating to compatibility, livability, community-building, urban design, life-cycle cost and environmental impacts. The guidelines will help the Region and, through their broader relevance, other municipalities across Canada to implement a vision of more sustainable transportation systems and healthy, vibrant

communities as expressed in such documents as the Transportation Association of Canada's "New Vision for Urban Transportation".

The guidelines are intended to be used by municipal staff, professionals, citizens, developers and politicians involved in road design and land use planning. The guidelines can be used in the design of new roads and road rehabilitation projects. Because the guidelines deal with lands adjacent to roads, they can also be used when designing new urban areas, as well as in the development of land use policies.

The guidelines provide an implementation framework with components that can be mixed and matched to fit specific conditions. The success of the guidelines will be measured by how much they are used by the intended users. The intent is to widely distribute the document, organize workshops and information sessions, monitor its usefulness and amend it if necessary to incorporate emerging best practices and lessons learned.

CONSULTATION

The guidelines were prepared in cooperation with a Working Group and with the assistance of Delcan Corporation and The Planning Partnership. The Region partnered with Canada Mortgage and Housing Corporation and Go for Green to fund the review. The guidelines complement the research done by both of these national agencies on developing sustainable communities. The Transportation Association of Canada's Urban Transportation Council also fully endorsed the project from its start, as a way to put into practice sustainable transportation objectives.

The Working Group composed of key stakeholders was established in October 1998 to provide guidance to the review. The Working Group included representatives of the following agencies/interest groups:

- Area municipalities
- OC Transpo
- Canada Mortgage and Housing Corporation (CMHC)
- Go for Green
- Urban Transportation Council of the Transportation Association of Canada (TAC)
- Underground Public Utility Coordinating Committee (UPUCC)
- OttaWalk
- Regional Cycling Advisory Group
- Ottawa Board of Trade
- Federation of Community Associations
- Building Owners and Managers Association (BOMA)
- Canadian Fitness and Lifestyle Research Institute
- Professional Urban Designer

A number of stakeholders such as the Council on Aging, the taxi and trucking industries, the Ottawa-Carleton Homebuilders Association, the Audible Pedestrian Signal Commission and the Women's Action Centre Against Violence (WACAV) were invited to two public meetings, one of which was a public information session advertised in the local newspapers. A special information session was provided to the National Capital Commission staff.

FINANCIAL IMPLICATIONS

The endorsement of the guidelines has no direct financial implications to the Corporation.

Approved by
Nick Tunnacliffe, MCIP, RPP

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

SG/

Nelson, Rosemary

From: Robert Dick [rdick@ccs.carleton.ca]
Sent: Tuesday, June 13, 2000 12:19 PM
To: nelsonro@rmoc.on.ca
Cc: greniersy@rmoc.on.ca; rscott@ncc-ccn.ca
Subject: Regional Road Corridor Design Guidelines

From:
Light Pollution Abatement Committee,
The Royal Astronomical Society of Canada,
136 Dupont Street,
Toronto, Ontario,
M5R 1V2

To:
Ms. Rosemary Nelson, Co-ordinator for the Transportation Committee
(nelsonro@rmoc.on.ca)
Regional Municipality of Ottawa Carleton,
Cartier Square, 111 Lisgar Street,
Ottawa, Ontario,
K2P 2L7

Date: June 13, 2000

Dear Ms. Nelson,

Thank you for the opportunity to comment on Draft #5 of the **REGIONAL ROAD CORRIDOR DESIGN GUIDELINES**. Although the Guidelines have been under development for several years, we were unaware of the activity until recently.

The Royal Astronomical Society of Canada (RASC) has over 4,000 members across Canada. Over 450 members are in the Region of Ottawa-Carleton. Our program of Light Pollution Abatement promotes the visibility of the night sky by encouraging the reduction of light pollution (light glare, light trespass and sky glow). We wish to commend the RMOC for taking a leading role in promoting the use of appropriate outdoor lighting to improve safety and security for all citizens and to improve the night environment.

Although the Guidelines address "Regional Roads", we hope that future guidelines will be developed for other roads in the region. The proliferation of private and commercial road-side lighting (driveway lights and dusk to dawn lights) reduces visibility for motorists and pedestrians. Little of this light actually illuminates the ground and rest produces glare, light trespass and sky glow.

The following are our comments that directly relate to the Draft Guidelines.

In the Section on Public Space Principles (Section 6.1 para. 2), we are please to see the acceptance that roadway lighting can adversely affect the pedestrians' environment and roadway lighting must be designed for mutual benefit. It acknowledges the discomfort and vulnerability felt by pedestrians from the glare of unshielded or poorly directed light. This glare also affects the activity of RASC members as they view the night sky. Glare is light that shines horizontally. Lights that produce glare are visible for a considerable distance. As it does so, it scatters off dust and aerosols in the air. This scattered light causes sky glow which forces our members to travel over 150 kilometres from the city to find dark skies.

Section 6.1 para. 6 mentions the use of vegetation for light attenuation. We understand this to be for horizontal light. The commercial and private lighting is one

light that shines upward into the night sky.

Section 7.1.3 para. 3 refers to the lighting of parking lots. Parking lots in the Region may be illuminated to such high levels that they are distracting to motorists (Car Canada on Century Road for example). This concern is partially addressed in Section 2.0 where it refers to "adjacent land uses". We suggest that strict limits be placed on the illumination levels for municipal, commercial and private property to prevent future lighting from creating unsafe conditions. Without limits on the types of lighting and illumination levels, unsafe conditions may develop in a previously "safe" area. Also, unshielded or poorly directed outdoor area and security lighting may adversely affect the nocturnal environment that is enjoyed by nearby residence. Lighting curfews for some area lighting after 22:00 would reduce the annoyance of light trespass from outdoor illumination.

Section 7.1.5 para. 7 also would prohibit the use of searchlights. We find these lights particularly offensive and are pleased that these forms of advertising would be prohibited. A few years ago, complaints from citizens of the region resulted in the removal of searchlight advertising from the casino in Hull. Other communities in Canada have not been so fortunate (Langley, BC and Peterborough, Ontario).

We wish to strongly support the use of sharp cut-off luminaries (Section 7.5.2 Lighting para. 5). These have been shown to:

- reduce glare for motorists and pedestrians,
- increase the visibility of hazards,
- increase the attractiveness of the nocturnal cityscape, and
- significantly reduce sky glow which impacts the visibility of the night sky.

The light from wall mounted luminaries used on commercial buildings are damaging to the visibility of the night sky. They shine into windows of adjacent homes (light trespass) and create glare along streets for a considerable distance. The use of sharp cut-off luminaries should be generalised to these applications.

Section 7.5.2 para. 6 encourages merchants to assist in lighting the sidewalk outside their stores. However, competition between businesses may result in excessive illumination. We suggest that strict illumination limits be placed on signs.

The light from signs are designed to scatter light horizontally towards motorists and pedestrians. The white signs will illuminate the area. However, they will also produce all three forms of light pollution. We suggest that contrasting "colours" be promoted instead of "black on white" illuminated signs even though they will not illuminate the sidewalks very well.

To supplement the illumination of sidewalks and to reduce the sky glow from commercial establishments, we suggest that exterior building illumination use well directed downward pointing lights. Upward pointing lights (signage and walls lit from below) should be prohibited. The upward light sprays into the sky wasting energy and creating sky glow. It also contributes to glare along the street. The prohibition on roadside bulletin boards is also welcomed by the RASC. In addition to being distracting during the day, when illuminated from below a considerable amount of light is scattered into the sky.

The Guidelines are to reflect the winter conditions of the Region (Section 3.0). However, the effects of snow on illumination levels is not addressed. If the luminaries are beneath trees, the sky glow from lights that shine upward will be reduced in summer. However during winter, deciduous trees offer little shielding. Further, the reflected light from snow results in a very bright cityscape. We suggest that lower illumination levels during winter be considered. It may be added

21, 25, 38-47) are not of the "sharp cut-off" design. These graphics should be modified to assist in the appreciation of document's aims.

We hope these comments will assist the Transportation Committee in the development of Guidelines that will benefit both the Region and members of the RASC.

Sincerely yours,

Robert Dick
Chair, Light Pollution Abatement Committee
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Citizens for Safe Cycling

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June 21, 2000

Dear Councillor Holmes:

Enclosed are our comments on the document, "Regional Road Corridor Design Guidelines" to be discussed at Transportation Committee today. We apologize for the lateness of our response, but, even though we had commented on the draft guidelines, we were not notified of the final draft appearing, nor was it available on the RMOC website.

In general, these guidelines will serve as a useful basis for future developments of regional roads. The document puts forward a number of good ideas which CfSC supports.

We would like to reiterate a number of points we made in our response in May which were not included in the guidelines:

- In a number of sections (section 7.3.1-2 (page 27), pages 45 and 48 in the demonstration plans), the guidelines are unclear as to the maximum speed for a shared bicycle/motor vehicle lane). In 7.3-2, it states that separate bicycle lanes should be used where the speed limit is greater than 60km/h; in other places, it says that shared lanes should only be used when the speed limit is less than 60 km/h. It is CfSC's experience that a 60 km/h is an acceptable speed for a shared lane (for example, on Baseline Road). The guidelines should be altered so that any reference to "less than 60km/h" is "less than or equal to 60km/h".
- In 7.3-3, change "Provide" to "Consider". Other factors may make cycling lanes inappropriate for those areas.
- In the objectives (page 3, final paragraph): The best roads are the ones that FULLY accommodate pedestrians and cyclists and transit.
- In 6.2-2, the general statement supporting access control appears to conflict with page 13, item 5. We are also concerned it may encourage reverse frontage development.
- In 7.3.4: On-road parking almost always worsens cycling conditions, in a number of ways. Parked cars block the curbside lanes, causing cyclists to make the greatest movement to go around. Parked cars always pose a risk to a cyclist of a door being opened suddenly into the cyclist's path. This has killed cyclists, in addition to causing

many serious injuries.

- In 7.3.4-3: Why should curb extensions not extend further than the parking portion of the lane (if this means where cars are physically located). Cyclists should NOT be travelling next to parked cars; making the bump-outs a doors-width wider will encourage cyclist traffic to ride a safe distance away.
- In 7.3.4: Add a statement: “Do not add on road parking where it will endanger cyclists or discourage bicycle use.”
- In 6.3-7: Not all regional roads should be “heavy vehicle compatible”, whatever that means. This does not minimize vehicle conflicts. Large radius corners designed to accommodate WB18 or larger vehicles often increase conflicts for cyclists, who are forced to wait in the middle of the intersection in an unpleasant and dangerous position when stopped on a red signal.

Add: “Large trucks should only be significantly accommodated on designated truck routes.”

- In 7.2: Recreational paths used by cyclists are dangerous when placed in the boulevard. They do NOT belong here.
- In 7.2-8: the dangers of sidewalks to pedestrians from icy curb cuts and driveways sloping across the sidewalk is significantly understated here. How many people are injured in Ottawa every year from these? Why is a cross slope that would be totally unacceptable for a car with four wheels considered acceptable for pedestrians with only two feet? This needs to be addressed in this section, as it is in 7.4.3
- In 7.2-9, recreational paths shared by 2-way cyclist traffic and pedestrians should be 4.5 m wide, not 3 m narrow.
- In 7.2 Add: design road drainage so that pools of water do not accumulate at intersection corners after rain or snow melts. This can be done; look at cities like San Francisco for good examples of proper intersection corner drainage.
- In 7.2.3: This section seriously fails to address the needs for transit shelters in a winter city and reads like “more of the same”. Ottawa’s shelters are pathetic compared to those that can be found in another Canadian winter city, Winnipeg. Heavily-used shelters (for example those on Albert and Slater Streets downtown) should have proper doors and heating during winter months. If it can be done at Transitway stations it can be done at stand-alone shelters as well.
- In 7.2.3-3: 1 m wide doors are perfectly adequate openings for a shelter and can be found on many of the traditional OC Transpo owned and operated shelters. These smaller doors, only 1/10 of the total side area are much more useful in actually keeping out cold winds and blowing rain. The 1.5-2 m looks like it has been spec’ed in favour of the Daytech advertising shelters. What basis is there for this bias?

Yours sincerely,

Brett Delmage
President, Citizens for Safe Cycling