GREEN ACTION REPORT ON AUTOMOBILES: THE FEASIBILITY OF CLOSING ST. GEORGE STREET TO CARS AND THE REDUCTION OF PARKING ON THE ST. GEORGE CAMPUS

Produced by the Ontario Public Interest Research Groups - Toronto (OPIRG-TORONTO)

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> > September 1991.

Special thanks goes to:

Annex Residents Association, Grahame Beakhust, Gordon Cressy, Joan Doiron, Denise Gibson, Grange Housing Work Group, Anne Hansen, Healthy Cities Office, Kensington Market Task Force, Bruce Pearce, Angelo Rao, Nick Vardin. Also, Andrea, Regan, and the EYC gang.

September 1991

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PART I: THE CLOSURE OF ST GEORGE ST TO AUTOMOBILES

1.1 INTRODUCTION

In the next decade, public rebellion against the car will surpass current rejection of cigarette smoking. Cars will simply not be welcome in a growing number of urban places...Cars are an obstacle to urban mobility; they're getting us nowhere, slowly. Rush hour isn't a rush and it's not an hour. No wonder people are turning to bicycles in droves. The car's appetite for space, power and speed has made cities unlivable (Hansen, 1991:1).

The University of Toronto Green Master Plan discusses the environmental impact of automobiles and lists specific recommendations to restrict the use of cars on campus. One particular proposal calls for the removal of all cars from St. George Street, Huron Street, Willcocks Street, Devonshire Place, Bancroft Avenue, Russell Street and Galbraith Road (OPIRG-UTEC, 1990:22). As a follow-up to this recommendation, the OPIRG Green Action Plan will focus on the feasibility of closing down St. George Street to all automotive traffic from College to Bloor Street.

Why St. George Street, as opposed to any other street in Toronto? This is not the first time the closure of St. George St. has been considered. The closing of St. George Street was first introduced in the 1962 Campus Master Plan and again in the 1975 revision. This issue has been recently revived and the present administration at the University is in full support of this study (Cooley, 1991). St. George Street is a logical choice because of its obvious inconvenience to students who risk life and limb attempting to cross it. St. George has become a dividing line between the east and west campuses. At the same time, it is a high-profile street with which all students, staff, and faculty can identify. Just as importantly, closure of St. George St. to traffic has been independently raised by local resident and business groups for a variety of reasons including neighbourhood integrity and safety.

The objective of this feasibility report is to clarify the local and global environmental necessities of closing down St. George Street as well as other reasons why this would be beneficial to the University and the surrounding community. It will focus on some of the difficulties that could arise from closing down a major thoroughfare, and some possible solutions that would help to alleviate these problems. Finally, the report will make recommendations based on our findings.

1.2 IDENTIFYING THE PROCESS OF CLOSING ST. GEORGE STREET

According to Bruce Pearce, former aide to Ward 5 City Councillor Liz Amer, the shutting down of St. George Street to automotive traffic falls within the jurisdiction of the municipal council of the City of Toronto (Bruce Pearce, pers.comm)

The first course of action in approaching the City is to have the closure of St. George St. put on the agenda for the City Services Committee. This can be done several ways: a member of council can introduce the issue to the City Services Committee; or a simple letter of request to the City Clerk from any Toronto citizen is often sufficient enough to put it on the agenda. This letter should include a request that the issue be made a deputation item, which would allow interested parties to speak on the issue at committee meetings.

If the request is deemed to be a valid one, the committee will refer the issue to the relevant city departments, including the Public Works Department and the Planning and Development Department for further research. During this period, the Planning Department and the Ward Councillor usually hold public consultation meetings.

These public consultations form a principle access point for interested parties to give support for the closure of St. George St. If there is sufficient support shown at these consultations, closure will become a reality. For there to be adequate representation of those who support the closure of St. George St., it is important to form a coalition of supporters and that can organize itself into an effective lobby group. This coalition should maximize its efforts by attending the public consultation meetings to let city planners know that they are in support of this move.

When the research is completed, the departments report back to the City Services Committee and the Ward Councillor. A majority vote by City Council is needed to pass the motion to close St. George Street.

1.3 IDENTIFYING THE GROUPS INVOLVED IN THE ST. GEORGE ISSUE

There are several groups who would be directly affected by the closure of St. George Street. The major groups involved are:

residents in neighbouring areas, businesses and private property owners, commuters using St. George Street; university students, staff, faculty, and administration. The closure of St. George Street would affect each of these groups differently. Therefore, each will have different concerns, all equally important. In order to close St. George Street there must be general support from all of these groups.

It was difficult to get initial responses from members of these stakeholders as research was conducted over the summer and we were unable to reach all individuals for comment. The responses we have received so far have been mixed. Members of the Grange Housing Work Group supported the closure of St. George Street since they feel it would reduce the traffic flow in their residential streets. They would like to extend the St. George closure to include the reduction of Beverley Street to two lanes, and possibly for local traffic only (Grange Housing Work Group, July 17, 1991 meeting).

The members of the Annex Residents Association had varied opinions. One individual thought that the proposal to close St. George Street from all automotive traffic was "outrageous" (Annex Residents Association, August 8, 1991 meeting). There was a fear that the University has too much power already as an institution, and it would make a terrible precedence; people would close down streets on a whim. It was noted that traffic on St. George Street was horrendous during "Bike to Work Week." Traffic was backed up throughout the whole week. It was believed that if closing down one lane for bikes would cause such problems, shutting down St. George Street from all automotive traffic would be disastrous. The intersection at St. George and Dupont is a particularly tense area, and all efforts should be made to alleviate, not aggravate this situation. Another individual was "not a fan" of the University or the disregard it held for surrounding neighbourhoods, however, it would be wonderful to have green space on the campus (Annex Residents Association, August 8, 1991 meeting).

Other Annex residents expressed support for the closing of St. George Street stating that it is not logical for a major thoroughfare to be running through what is fundamentally a pedestrian area. The property and land use of the area surrounding St. George Street are all rooted in the University. They would fully support the closure of St. George Street if it would reduce traffic in the Annex. It was suggested that a skating rink could be erected during the winter periods, lunch facilities outside in the summer, and a small park for community use (Annex Residents Association, August 8, 1991 meeting).

Most agreed to support the study of St. George Street but would not commit to anything until an official report was conducted by city officials. They stressed the need for a impact study on all surrounding areas, not just those east and west of St. George Street.

A recurring theme in discussions with non campus groups was the importance of integrating the offcampus and on-campus community needs. Support for street closure would be given on condition that the control over the development and use of the liberated space not be monopolized by the U of T.

WHY ST. GEORGE STREET SHOULD BE CLOSED

1.4.1 STUDENT DEMAND AND SUPPORT

The closing of St. George Street from automotive traffic has the support of the general student population. In the past Spring SAC elections, OPIRG organized a referendum in which U of T students voted 3,956 to 290 in favour of the implementation of the OPIRG Green Master Plan. One of the 68 recommendations was the closure of St. George Street from Bloor to College.

1.4.2 UNIFICATION OF U OF T CAMPUS

The 1990 University of Toronto Master Plan Planning Principles attempts to address accessibility, safety and environmental issues on St. George Campus. It calls for preservation and enhancement of green space, the improvement of pedestrian routes across the campus, and the use of alternative means of transportation while parking issues are being examined (University of Toronto, 1990:13-14).

Unfortunately, the University fails to address the uncontrolled traffic flow throughout the downtown campus which has prevented the University from acquiring an independent sense of community. This has become more apparent in the past few decades, as the inner core of the university has become flooded with automotive vehicles. The estimated 17,000 cars that drive down St. George Street daily have become a barrier which students are forced to confront constantly when moving from class to class (Angelo Rao, pers.comm.).

1.4.3 IMPROVEMENT OF TRANSPORTATION

The university and local community should recognize that currently, motorists are monopolizing a street that is used by thousands of students every day. By closing down St. George Street, transportation will be greatly improved for the large number of cyclists and pedestrians on campus.

There is much concern over the fate of traffic diverted from St. George St.. Closure of major streets to traffic is neither new nor unmanageable. One example of a successful reorganization of traffic occurred on April 19 of last year when New York City held Alternative Transportation Day during Earth Week. The City closed the 42nd Street to all personal automobiles from 10 a.m. to 4 p.m. and only allowed bicycles and buses on the transitway. Traffic impact studies on adjacent streets revealed that the average crosstown speeds actually increased 16 per cent eastbound and 18 per cent westbound (New York City Department of Transportation, 1990:4). 42nd Street is comparable to Toronto's St. George Street as both are major thoroughfares, having a daily count of 28,000 and 17,000 vehicles respectively.

Although there are not many precedents of closing streets to cars in Toronto, there have been many occasions in which different traffic measures have been implemented by the Public Works Department to control the flow of traffic. In the 1970s, Yonge Street was closed to cars temporarily. The Sussex-Ulster Maze was formed in the 1970s to successfully curb the flow of traffic running through residential areas. As well, this year, transit, bike and taxi priority lanes were established on Bay Street. All these projects faced the same problems of diverted traffic as the closure of St. George St. will. When looking at the feasibility of closing St. George Street, it is important to acknowledge the impact it would have on local traffic. For

this reason, examples of traffic-control projects like the Yonge Street closure, the Sussex-Ulster maze and the Bay Street Priority Lanes must be examined to help anticipate any traffic increases or decreases and to develop strategies to compensate for them in neighbouring streets. The net result in any of these projects is not only a diversion of traffic, but also a decrease in the net amount of traffic flowing through the area as car owners are discouraged from driving by the decreases in accessibility.

Transportation alternatives need to be encouraged in Toronto. Without public transportation, a trip downtown would require more than 120,000 extra cars to carry the same number of riders. Living spaces would be reduced to make room for the 35 extra lane ways needed to maintain these automobiles (Toronto Transit Commission, 1989:18). In the near future, Toronto will become even more dependent on public transit. Transportation will have to adapt to our aging population. It will be less expensive and more efficient for seniors with fixed incomes to cycle or take the bus and subway when compared with the overall cost of maintaining a personal automobile.

As Toronto moves toward reducing the role of the private automobie in the downtown core, street closures will become part of city planning. St. George St. falls within an area of the city in which such planning is taking place. Hence St. George St. provides an excellent opportunity for examining all the various aspects involved in the shut down of a major street. Closure of St. George St. will also play a role in the first steps of an overall city plan that will reduce the amount of space occupied by paved roadways.

1.4.4 PRESERVATION OF LIVABLE RESIDENT NEIGHBOURHOODS

In the past, city planners have focused on expanding roadways to serve the needs of drivers without regard to the housing, safety, and health issues that affect Toronto residents. As a result, Canada has had more personal automobiles than households since 1976 (Leggett, 1989:3).

More and more people are realizing we are overly dependent on cars and personal attitudes towards the car are rapidly changing. In a call-in poll of Toronto Star readers, seventy-six per cent of the 284 callers responded "yes" to the question, "Are cars ruining Metro" (Toronto Star, 1991a:A3). In a nation-wide poll conducted last year by the Energy Department, sixty per cent of those interviewed said that they would support laws to ban driving downtown on alternate days; fifty-five per cent of the participants agreed with the statement that "people who drive to work will not reduce the use of their cars voluntarily for the sake of the environment. Laws are needed to make people use public transit" (Toronto Star, 1991b).

"Every report on Toronto's future development in the past few years has identified the car as a major obstacle to sound environmental and urban planning" (Valpy, 1991). Cities like Bangkok, who have not curbed the use of automobiles face uncontrolled pollution problems. A ten minute walk down one of Bangkok's main streets will have a pedestrian gasping for breath; a white washcloth will come away black when wiped across the face (Magistad, 1991). Toronto's new official plan, Cityplan '91, contains proposals on how to make the city a better place to live and includes recommendations to reduce car dependency in Toronto. It addresses the City of Toronto's commitment to reduce 1991 carbon emissions 20 per cent by the year 2006. It calls for the reduction of the operation of any vehicles, buildings or activities that support city life, whether they occur inside city boundaries or not (City of Toronto, 1991:47). The policies also include a reduction of private automobile use and parking in the inner core (City of Toronto, 1991:71).

The University must take into account the interests of the residents living in the surrounding neighbourhood as the closure of St. George will affect the course of everyday life. Although it may mean that residents would have to use alternate routes such as Bay, University, or Spadina as north-south thoroughfares, the closing of St. George would also provide a safer, cleaner, and more liveable environment for their children.

1.4.5 HEALTH AND SAFETY

It is no secret that cars are the major source of urban pollution. However, many people fail to make the critical association that automobiles cause serious health problems.

Automotive vehicles emit the ozone-depleting chlorofluorocarbons in air conditioners, the greenhouse gases nitrous oxide, and methane, as well as hydrocarbons, nitrogen oxides, and carbon monoxide, which contribute to the formation of tropospheric ozone or low-level ozone (Ontario Global Warming Coalition, 1991:40). Pollutants such as these lead to many health hazards.

Low-level ozone is a particularly harmful substance to human beings. In the 1988 US-Dutch Symposium on ozone, it was revealed that healthy children suffer adversely when exposed to ozone levels below regular quality standards (Jessup, 1989:265). The respiratory problems associated with low-level ozone can affect people in good health, especially during the summer when concentrations are elevated (Jessup, 1989:265), but the results can be deadly to children, asthmatics, and the elderly (Lowe, 1989:9). According to the Ontario Global Warming Coalition, the warmer summers brought about by global warming will cause even greater urban smog, since its formation is dependent on temperature. "Rising ozone levels will cause increasing pulmonary damage among people living in urban areas, and indirectly contribute towards the formation of acids in the air that further harm human health" (Ontario Global Warming Coalition, 1991:4). In 1989, the Environmental Protection Agency (EPA) concluded that "motor vehicles were the single largest contributor to cancer risks from exposure to air. Motor vehicles...are responsible for 55 per cent of the total cancer incidence from contaminants, five times greater than from any other pollution source" (NOW Magazine, 1991).

Cities around the world are feeling the effects of pollution. In Athens, Greece, ozone levels surpassed the safety limit of 300 milligrams per cubic metre of air and reached an all-time high of 393 milligrams. Citizens were advised to reduce car use in the capital, and to stay indoors if possible (The Wall Street Journal, 1991). Pollution in Mexico City has been so bad that 25 oxygen booths have been set up in local parks and malls across the city to sell clean, breathable air (Moffett, 1991). Hospital admissions for respiratory problems have risen by one-third and the government has forced industries in the city to cut their operations in half after announcing a second-stage pollution alert (Whittington, 1991).

Noise from automobiles also affect physical health. Noise levels above 65 decibels will risk increases in heart and blood pressure. In Frankfurt, levels reach 77 to 78 decibels (The Ottawa Citizen, 1991:E5), while rush hour in Bangkok exceeds 100 decibels which can cause damage to the inner ear after an hour of exposure (Magistad, 1991).

Problems in Bangkok do not stop at noise levels; conditions there have reached a critical level. Automobile exhaust consists of thirty-eight different chemicals, 18 of which may be carcinogenic. The incidence of lung cancer in Bangkok is three times higher than any of Thailand's provinces. Last year, almost 1 million people were treated there for respiratory ailments (Magistad, 1991).

The situation in Moscow is equally severe. By the ages of 14, 20 per cent of Moscow's children will have developed a chronic disease related pollution. In one particular ward, teachers went on strike to bring attention to the fact that students in their class were fainting from pollution (Sallot, 1991). Children living by Moscow's Garden Ring Road are six times more likely to succumb to respiratory infections than children living elsewhere (Sallot, 1991).

Even the United States are facing dramatic pollution problems. The 27 largest cities in America have pollution ratings of "serious" or "severe" which are the two worst categories of the 1990 Clean Air Act (Shute, 1991:11).

Although it seems difficult to see Canadian cities on the same environmental level as those mentioned above, if present trends continue, Metro Toronto faces an enormous increase in traffic over the next twenty years. There are presently 2.7 million automobile trips made in, out, or within Metro every day, and these figures could increase to more than 5 million by the year 2011 (The Municipality of Metro Toronto, 1991:47). This rapid growth would bring increasing negative health effects of pollution to Toronto in a very short time span. Closing St. George Street will not solve the health hazards that come as a result of automobiles, however, it will provide a first step in a process that will make Toronto and the University area a safer, and healthier place to live, learn and grow.

1.4.6 PROTECTION OF THE ENVIRONMENT

As a community leader, the University of Toronto has the responsibility of being a forerunner in the fight to preserve our environment. Reducing the use of the private automobile, and, thereby, reducing auto emissions is an important part of environmental protection. Nitrogen oxides, sulphur dioxide, low-level ozone, and carbon dioxide are some of the gases emitted by automobile exhaust mentioned in section 4.4.

Motorized vehicles generate 41 per cent of all nitrogen oxides (Shute, 1991:11) while the average Canadian car emits 29.6 kilograms of nitrogen oxides a year (Canadian Transit Urban Association, 1990:5). Sulphur dioxide and nitrogen oxides are both extremely harmful because they react to create acid rain (Weller and OPIRG, 1980:14). Although nitrous oxides are not considered greenhouse gases, these gases react with other volatile organic compounds found in automobile exhaust that create low-level ozone, a greenhouse gas (Canadian Urban Transit Association, 1990:2). Low-level ozone is not only harmful to human health, as shown in section 1.4.5, but also damages crops and trees as well. The University of California conducted studies on 24 plots and concluded that ozone injury has occurred on 29 per cent of the Tahoe trees (League to Save Lake Tahoe, 1991:2).

Carbon dioxide is one of the principle greenhouse gases. Canada ranks second in the world for annual per capita carbon dioxide generation which is currently estimated to be 20 tonnes. This is almost double the CO₂ generation rate of the average Japanese or Swede (Mittelstaedt, 1991:C2). According to the Ontario Global Warming Coalition, transportation is the most carbon intensive of all of Ontario's end use sectors, producing 69 tonnes of carbon dioxide per megajoule energy consumed; by 2005, this figure is estimated to increase by 29 per cent (Ontario Global Warming Coalition, 1991:39-40). Unfortunately, removing such quantities of carbon dioxide from the atmosphere is a difficult process. For every gallon of gas burned 20 pounds of carbon dioxide are produced; it requires a large, healthy tree an entire year to remove this quantity from the atmosphere (Suzuki, 1991).

The effects of acid rain are well-documented. It destroys aquatic life as well as the birds and mammals that depend on lakes and rivers for food (Weller and OPIRG, 1980:18). Water drawn from acidic reservoirs are undrinkable (Weller and OPIRG, 1980:26).

Global warming poses a similarly serious threat to Ontario and the rest of the world. The Ontario Global Warming Coalition predicts that the gradual warming of the earth is already under way and will directly affect the Great Lakes, agriculture, urban air quality, forests, tourism, and recreation (Ontario Global Warming Coalition, 1991:4).

Closing off automotive traffic on St. George Street would help eliminate these environmental problems. It would encourage people to use alternate modes of transportation by making driving on campus and downtown more inconvenient. It would set a precedent for a continued de-emphasis of the private automobile in the city. U of T support for St. George St. closure provides the University with the opportunity

to show its commitment to being a responsible member of the community by making the Toronto area more livable. It would be a progressive step towards reducing traffic, noise pollution, and air pollution and, at the same time, help to provide a safer and healthier environment for those who come here to live and learn.

1.4.7 TRUE COST ACCOUNTING FOR MAINTAINING THE PERSONAL AUTOMOBILE

Car-owners know how expensive it can be to maintain an automobile. The costs include insurance, parking fees, fuel, maintenance, and depreciation, not to mention the payments for buying or leasing a car. When all of these are factored in, the total cost of transportation by car amounts to \$34 for every 100 miles. This amounts to approximately \$1,700 a year just to commute to work (Lowe, 1989:15). What car-owners may not know is how much money taxpayers put into providing parking spaces, constructing and maintaining roads and highways; yearly costs in the United States total up to \$260 billion or an additional \$15 per 100 miles (Shute, 1989:11). It has also been estimated that about two-thirds of rush hour commuters are delayed by traffic on urban interstates, and these backups cost \$10 to \$30 billion in lost time and other expenses; the government projects that this congestion "will triple by 2005, even if capacity is increased by an optimistic 20 per cent" (Shute, 1991:11).

The added costs in land use, resources, and energy are also phenomenal. Each year around the world, millions of hectares of productive land are paved over or built upon to accommodate the growth in the number of automobiles (Brown, et. al., 1990:7). Transportation has become "the largest and most rapidly growing drain on the world's oil reserves" (Flavin and Durning, 1988:23). Transportation consumes 63 per cent of all the oil used in the United States; approximately 12.2 million barrels of oil are used daily, exceeding the 9.6 million barrels produced domestically (Shute, 1991:11).

To develop a thorough cost-accounting, one must also look at the indirect costs that are accumulated by the automobile. The cost of clean ups, staff time, resources, and energy must be included in environmental disasters which occur as a result of the constant pursuit to feed the car's insatiable appetite for fuel. In Alaska, the EXXON Valdez oil spill killed 580,000 sea birds, 5,500 otters, contaminated sea life up to 800 kilometres away and polluted tidal zones to depths of 100 metres (The Globe and Mail, 1991). According to an EXXON spokesperson, clean up of the coast has exceeded the \$2 billion mark. In Kuwait, oil fires burned as many as 6 million barrels a day. Within 1,000 kilometres of these fires, there are severe acid rain, smog, black snow and toxic rain (Israelson, 1991:A18).

There are other environmental problems that arise with cars and equipment. In Hagersville, Ontario, approximately 14 million tires were set on fire, which cost \$30 to \$50 million to clean up and 17 days for firefighters to put out the fire (Crook, 1991:A2).

In many ways, the true-cost accounting of the private automobile embraces all the reasons why St. George Street should be closed to automotive traffic. Not only are cars monetarily expensive, they extol added costs on time, energy, land use, and resources. The havoc cars wreak on the environment, and on resources to clean up these disasters are incredible. The risks to human safety and health make the private automobile more of a liability than an asset. When all these factors are taken into consideration, using cars as an effective means of getting from Point A to Point B becomes highly questionable. It is becoming increasingly apparent that the total cost of using the car as a major mode of transportation is too high a price for society.

RESPONDING TO THE PROBLEMS AND ISSUES ARISING FROM CLOSURE

2.1.1 PROBLEMS OF ACCESSIBILITY

The closure of St. George Street poses several serious access problems which must be addressed. The Road Study included in this report attempts to solve these problems. Wherever there is an access point from St. George Street to any building, parking facility or service entrance along St. George, a description of the problem is presented and a subsequent solution is proposed. This preliminary section deals only with automobile access to buildings.

- * There are very few cases in which automobile access to facilities or service entrances would be cut off without the possibility for an alternate entrance.
- * No private businesses or private residences are situated along St. George Street from Bloor to College; all of the buildings on St. George Street serve institutional purposes only and therefore accessibility would not affect local residents or businesses directly.
- * There are four ground-level entrances and wheelchair access points all located on the west side of St. George Street at Innis College [132], Sydney Smith Hall [33] and the Koffler Centre [143], which might require re-location.
- * In general, roads surrounding St. George Street are structured in a way which would allow for physical or re-organizational changes to be implemented easily. Surrounding roads which allow access to buildings on St. George Street are:

Huron Stnorth-south
Devonshire Place...... "
Kings' college circle... "
Galbraith Rd.....east-west
Russell St..... "
Willcocks St..... "
Harbord St..... "
Sussex Ave..... "

The Road Study (sec. 1.5.4) discusses how different accessibility problems can be alleviated using these alternate routes and elaborates on the findings and observations set forth in this section.

2.1.2 PARKING SPACES ALONG ST GEORGE STREET

In terms of parking, the Road Study reveals that the east side of St. George Street would have to undergo more extensive planning than the west side if closure were to be implemented. However, nearly all parking and accessibility problems could be easily alleviated on the east side, with the exception of a few minor cases in which re-location would be necessary. An estimated twenty-seven parking spaces would have to be re-located as they have no alternate accessibility options. Twenty-four of these are part of the small University College Residence lot in front of Sydney Smith Hall and, therefore, only a total of two buildings might have to re-locate their current parking facilities. The Road Study discusses each parking access problem due to closure, and outlines simple planning solutions by which alternate access can be facilitated or introduced. Loss of meter parking is discussed independently in the parking study in section 3.0.

2.1.3 ST. GEORGE STREET ROAD STUDY: PARKING AND ACCESSIBILITY

NOTE:

* The number included in brackets () corresponds to the circled number or letter on appendix A which gives the location of each specific case that is being discussed.

* The number in square brackets [] corresponds to the number code for the buildings discussed, as printed on map (appendix A). For the exact address of each of these buildings see Appendix B.

PARKING SOLUTIONS FOR THE EAST SIDE OF ST. GEORGE:

(1) CUMBERLAND-WALLBERG PARKING FACILITIES

The parking spaces between The Cumberland House [26] and The Wallberg Building [8] are currently accessible only through St. George Street. However, a new entrance could be made on King's College Road between the Cumberland House and the Engineering Annex [21]. Introducing this entrance would involve relatively minor road changes.

(2) KNOX COLLEGE SERVICE ENTRANCE

Since the service entrance on the northwest corner of Knox College [575] would be blocked off once the street is closed, shipping to food services would have to be made from the rear of the building. Automobile access to the entrance can be made through King's College Circle.

(3) PARKING FACILITIES AT 63 AND 65 ST. GEORGE

St. George Street is the only access to the two small parking facilities between The School of Graduate Studies [43] and The MacDonald-Mowat House [172]. Therefore, a new entrance would have to be introduced from King's College Circle. This would involve removing a small length of fence and introducing an entrance from King's College Circle.

(4) PARKING LOT OPPOSITE INNIS COLLEGE

The parking lot opposite Innis College [132], between 97 St. George [115] and Drill Hall [38b] could be made easily accessible by introducing an entrance and exit from Sussex Avenue across St. George Street. The facility, which holds approximately 350 parking spaces, would remain unaffected by the closure. This entrance would also solve the problem of accessibility for all of the small parking facilities adjacent to the lot such as those provided for 97 St. George Street [115] and CIUT Radio [84].

(5) PARKING FACILITIES NEAR 91 ST. GEORGE

An additional exit from the 91 St. George Street [84] parking facilities can be created on the stretch between the St. Thomas Aquinas Chapel (on Hoskin Avenue) and Massey College [34]. This would divert some of the southbound cars on to Hoskin Avenue.

PARKING SOLUTIONS FOR THE **WEST SIDE** OF ST. GEORGE:

(6) PARKING FACILITIES 150-158 ST. GEORGE STREET

Motorists using the parking facilities between 150 [104] and 158 [103] St. George Street would have full access through the back entrance, which runs north-south from Sussex between Huron and St. George. All the facilities along this length of street already have access to this back entrance. Designating the backway as a one-way access road with the Huron intersection of the back-way as the entrance to parking facilities, and the Sussex intersection as the exit would organize traffic flow efficiently.

(7) DEPARTMENT OF ZOOLOGY SERVICE ENTRANCE

A new service entrance to Sydney Smith Hall [33] and the Ramsay Wright Zoological Laboratories [72] would have to be introduced from Huron Street, opposite the current one which is accessible on the west side of St. George. The introduction of this new entrance would involve moving the industrial garbage bin from the west side to the east side of the service entrance. A new ramp would have to be built on the west side leading to Huron Street.

(8) PARKING FACILITIES 42-44 ST. GEORGE STREET

Access to the parking facilities between 42 [45] and 44 [46] St. George Street would be made possible by their connection to Huron Street south. The parking facilities in this area (facilities for [46],[45],[143]) could be joined to allow full accessibility without introducing too many new entrances into Huron.

2.1.4 RELOCATION OF CURRENT PARKING FACILITIES ON THE EAST SIDE OF ST. GEORGE STREET

(A) UNIVERSITY COLLEGE RESIDENCE AND COLLEGE UNION PARKING LOT

There is no alternative access route for the small parking lot on the East side of St. George Street between The Sir Daniel Wilson Residence [29] and The University College Union [23] as the area immediately behind it serves as pedestrian walkways. This small parking facility represents the only significant relocation problem in terms of parking; a total of twenty-four parking spaces would have to be relocated. This number is minimal considering the total number of parking spaces along St. George Street. Motorized shipment vehicles, however, would still have access to the University College Residence service entrance by driving along Tower Road from Hoskin Avenue and parking near the northwest corner of University College [1]. Shipments could then be transported on trolleys along the existing pedestrian walkways, which lead conveniently into the shipping area.

Since an alternate use would have to be found for this space, the University's first bicycle parking lot could be introduced in this area. In addition to improving safety for cyclists, a bicycle parking lot would encourage motorists to bike to work and school.

(B) WHITNEY HALL SERVICE ENTRANCE

A small problem arises at the entrance between Whitney Hall [13] and The University College Union [23] since no alternate route can service the space accommodating an industrial garbage bin and an estimated

four parking spaces. Closure of St. George Street would require that Whitney Hall arrange for a different garbage pick-up location and relocation or termination of the four parking spaces.

(C) GRADUATE RESIDENCE SERVICE ENTRANCE

The small garbage pick-up and service entrance between the St. George Graduate Residence [81] and the Industrial Relations Centre [88] would require relocation.

(D) EXTENSION TO WOODSWORTH COLLEGE

An extension to Woodsworth College between the Industrial Relations Centre [88] and The Media Centre [110] is currently under construction. It is not known how many parking spaces, if any, the new facility is to include in front of the construction site. According to the U of T parking office, however, the St. George Street parking lot opposite Innis College [132] could deal with the parking needs of this new facility.

(E) WHEELCHAIR ACCESSIBILITY AND GROUND-LEVEL ENTRANCES FOR THE WEST SIDE OF ST. GEORGE STREET.

There are currently four ground-level entrances and wheelchair access points all located on the west side of the street at Innis College [132], Sydney Smith Hall [33] and The Koffler Centre [143] which might require re-location. These entrances are relatively close to other streets running from east to west which would allow for alternate access for shipment purposes.

2.1.5 ADDED TRAFFIC PRESSURES ON OTHER NEIGHBOURING ROADS

The biggest obstacle to the closure of St. George Street to automobile traffic is the traffic pressures that closure would place on other neighbouring roads. A great deal of research, planning and speculation from experts and city officials must enter into the discussion of this problem.

Because of this need for technical expertise it is very difficult to examine the traffic problem thoroughly at this point.

2.2 CONCLUSIONS

The current status of St. George Street is very problematic with respect to economics, the environment, health issues, and other over all costs. There is a need for progressive change in transportation and attitude towards the personal automobile.

The University of Toronto should combine its efforts with students, residents and other interested organizations to petition the City of Toronto to close St. George Street from College to Bloor Street. The University should work to find solutions to alleviate any accessibility or traffic problems as well as any safety related issues that would arise from shutting down a major thoroughfare. The closing of St. George Street would contribute to a solution to the social, economic, and environmental problems associated with the car. The final result would be a cleaner, healthier environment for ourselves and for future generations.

2.3 RECOMMENDATIONS

- * The University whould adopt the recommendations listed in the <u>University of Toronto Green Master Plan</u> with regards to transportation, parking, and automobiles.
- * The University should combine its efforts with interested individuals and organizations to form a coalition dedicated to the closure of St. George Street.
- * Members of the coalition should be organized to participate in public consultations for the CITYPLAN 91, the U of T Campus Master Plan, organized by Hemson Consultants and public consultation forums organized by city departments specifically for the shut down of St. George St..
- * The coalition should relocate the displaced vendors along St. George Street, perhaps in the renovated MacLennan courtyard as suggested in the University of Toronto Land Use Plan.
- * The coalition and the Public Works Department should study comprehensively the Sussex-Ulster Maze to determine any changes in traffic flow since the introduction of the maze.
- * The coalition and the Public Works Department should study comprehensively the Bay Street transit priority lanes, the closure of Yonge St. and the closure of 42nd St. in New York to determine the effects of reduced road space on driving patterns.
- * The University should consider using the green space proposed from closing St. George Street for community use, not just university purposes. Eg. skating rink, lunch facilities, small park.
- * The Public Works Department should commission a study to determine what mitigating traffic measures could be implemented to alleviate any traffic pressures which may result from the closure of St. George Street.
- * All issues directly related to the closure of St. George St. should be adressed, including personal safety of the area for pedestrians and accessability for the handicapped.

2.4 BIBLIOGRAPHY:

Annex Residents Association (1991). Meeting August 8. 120 Howland Avenue, Toronto.

Brown, Lester, et. al. (1990). State of the World 1990. Worldwatch Institute.

Canadian Urban Transit Association (1990). <u>The Environmental Benefits of Urban Transit: A Report of the Transit/Environment Tasks Force</u>. April.

City of Toronto (1991). Cityplan '91 Proposals. Toronto.

Cooley, Glen (1991). "Students give vote to green." NOW Magazine. May 30-June 5.

Crook, Farrell (1991). "Youth Gets 16 Months for Starting Tire Fire." Toronto Star. Thursday, July 4.

Flavin, Christopher and Durning, Alan B (1988). "Building on Success." WorldWatch Institute. March.

The Globe and Mail (1991). "Deadly spill damage." April 10.

Grange Housing Work Group (1991). Meeting July 17. 23 Grange Road, Toronto.

Hansen, Anne (1991). "Transportation in the Non-Smoking Section." Bikes Not Cars Newsletter. May 13.

Israelson, David (1991). "Oil fires no global threat, study says." Toronto Star. Friday, May 31.

Jessup, Phillip S (1989). <u>Carbon Emissions Reduction Options in Canadian Transportation</u>. Friends of the Earth. July

League to Save Lake Tahoe (1991). "Ozone Injuring Tahoe's Pine Trees." March.

Leggett, Jeremy. Ed (1989). Global Warming: The Greenpeace Report. Greenpeace.

Lowe, Marcia D. (1990). Alternatives to the automobile: Transport for Livable Cities. Worldwatch Institute.

Magistad, Mary Kay (1991). "Bangkok's Progress Marked by Health Hazards." <u>Washington Post Health.</u> May 7.

Mittelstaedt, Martin (1991). "All the worry over ecology fails to stem consumption." <u>The Globe and Mail.</u> Tuesday, June 4.

Moffett, Matt (1991). "The Best Things in Life Aren't Always Free in Mexico City." <u>The Wall Street Journal</u>. Wednesday, May 8.

The Municipality of Metro Toronto (1991) Metropolitan Toronto Government Strategic Plan. Toronto. May.

New York City Department of Transportation (1990). <u>Earth Week:Alternate Transportation Day</u>. New York City

NOW Magazine (1991). "Verdict gives cyclists right to civil disobedience." May 2.

Ontario Global Warming Coalition (1991). <u>Degrees of Change: Steps Towards an Ontario Global Warming Strategy</u>. June.

Ontario Public Interest Research Group and University of Toronto Environmental Coalition (1990). <u>University of Toronto Green Master Plan</u>. Toronto.

The Ottawa Citizen (1991). "Stopping Traffic." Sunday, May 5.

Sallot, Jeff (1991). "Choking city cries out for greenery." Globe and Mail. Thursday, June 6.

Shute, Nancy (1991). "Driving Beyond the Limit." The Amicus Journal. Volume 13. No. 2. Spring.

Suzuki, David (1991). "How your gas pedal is linked to Bangladesh." Toronto Star. Saturday, June 1.

The Toronto Star (1991b). "Downtown driving ban favoured by 60% in poll." Wednesday, May 29.

The Toronto Star (1991a). "Too Many Cars?" Sunday, May 5.

Toronto Transit Commission (1989). Transit in Toronto.

The University of Toronto (1990). Planning Principals for the St. George Campus. Toronto.

Valpy, Michael (1991). "Planning initiative won't cater to cars." the Globe and Mail. Thursday, June 20.

The Wall Street Journal (1991). "Athens Pollution the Worst Ever." June 19.

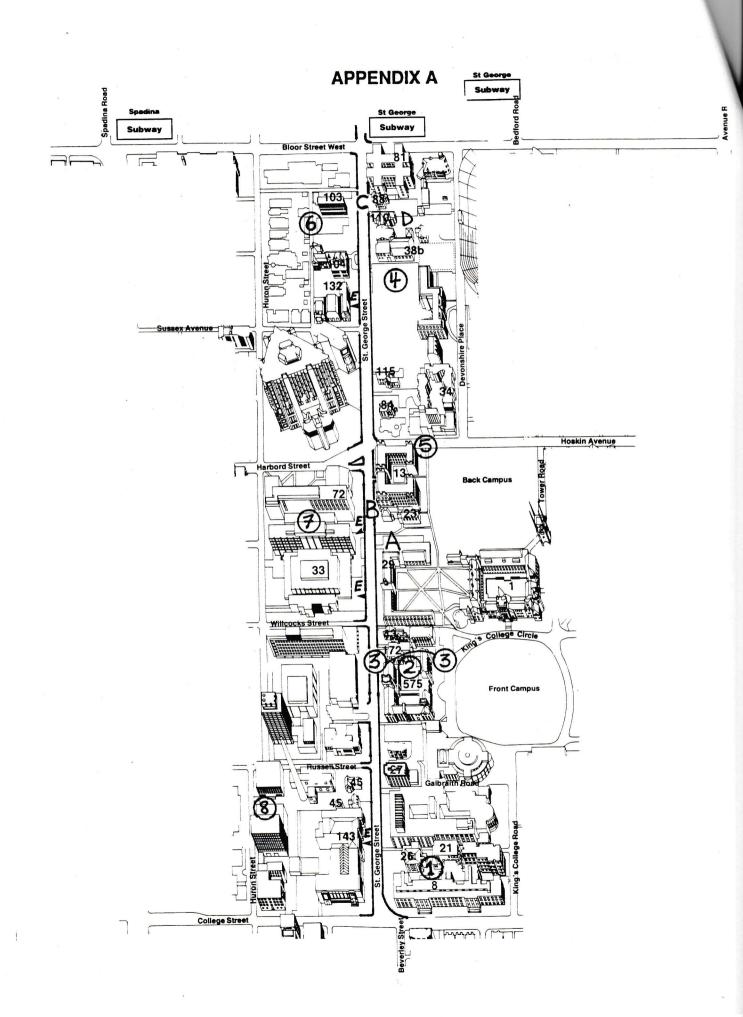
Weller, Phil and the Ontario Public Interest Research Group (1980). Acid Rain: the Silent Crisis. Toronto: Between the Lines.

Whittington, Les (1991). "Mexico City's grim warning." The Toronto Star. April 13.

2.5 PERSONAL COMMUNICATIONS:

Bruce Pearce -Aide to Rosario Marchese. May 23, 1991. 591-8039.

Angelo Rao -Department of Public Works and the Environment. July 22, 1991. 392-7774.



APPENDIX B

[26] Cumberland House33 St. George Street
[8] Wallberg Building434 College
[21] Engineering Annex11 King's College Rd.
[575] Knox College59 St. George
[43] School of Grad. Studies65 St. George [172] MacDonald-Mowat House63 St. George
[132] Innis College2 Sussex Avenue
[115]97 St. George [38b] Drill Hall117 St. George
[84] CIUT Radio91 St. George
[34] Massey College4 Devonshire Place
[104]150 St. George
[103] School of Continuing studies158 St. George
[33] Sydney Smith Hall100 St. George
[72] Ramsay Wright Zoological Labs25 Harbord Street
[45]42 St. George
[46]44 St. George
[143] Koffler Centre214 College Street
[29] Sir Daniel Wilson Residence73 St. George
[23] University College Union79 St. George
[1] University College15 King's Coll. Circle
[13] Whitney Hall85 St. George
[23] University College Union79 St. George
[81] St. George Graduate Residence321 Bloor St. West
[88] Industrial Relations Centre123 St. George
[110] Media Centre121 St. George
[132] Innis College2 Sussex Avenue
[33] Sydney Smith Hall100 St. George
[143] The Koffler Centre214 College Street