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HALIFAX
REGIONAL MUNICIPALITY

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Halifax, Nova Scotia
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North West Community Council
May 26, 2005

TO: Chairperson and Members of North West Community Council

SUBMITTED BY: Paul Dunphy, Director, Planning & Development Services

DATE: May 9, 2005

SUBJECT: **Sackville Drive: Functional Design Study Add On**

ORIGIN

Request by North West Community Council for staff to update Council on the status of the Sackville Drive Functional Design Study.

RECOMMENDATION

It is recommended that North West Community Council:

1. Not proceed further with plans to construct a median along Sackville Drive.

BACKGROUND

In May 2000, Ekistics Planning and Design Consultants were awarded a contract to undertake a Streetscape Design Study for Sackville Drive. The project was to provide:

- a visual identity study to articulate a unique theme and identity for Sackville Drive;
- a streetscape design manual to address recommendations of the visual identity study and identify specific streetscape improvements to create a visually appealing streetscape and mainstreet atmosphere; and
- a detailed implementation plan for the streetscape design manual.

The Study examined all private and public lands along the portion of Sackville Drive within the Commercial Corridor Designation extending from Cobequid Road to the Beaver Bank Road and recommended focussing on three primary aspects of improvement:

- Incorporate a series of individual streetscape design elements to emphasize a simple, modern, clean urban streetscape.
- Apply a series of streetscape guidelines to both existing and future uses along Sackville Drive.
- Establish a "Business Improvement District Committee" (BIDC) as a formal vehicle for businesses along the street to articulate their ideas and priorities concerning streetscape improvements, and provide opportunities to obtain funding for various streetscape projects.

The Sackville Drive Secondary Planning Strategy (SPS) and Land Use By-law (LUB) became effective on June 24, 2002. They primarily implement the first two goals of the Streetscape Study as identified above. The SPS includes an Action Plan which prioritizes a list of projects required to implement the SPS. A list of the prioritized actions identified in the SPS is provided in Attachment C of this report.

One of the priorities identified in the Action Plan was the preparation of a detailed Traffic/Functional Design Study to evaluate different options for improving and facilitating traffic along Sackville Drive. HRM Traffic Services, in cooperation with Planning and Development Services, commissioned this study in September 2002. The focus of the Traffic/Functional Design Study was to determine the extent to which the installation of a landscaped median, relocation of traffic signals and consolidation of driveways would affect traffic flow in the corridor. The landscaped median is intended to improve aesthetics, reduce speeds, manage traffic access and improve traffic safety.

There are many challenges associated with the installation of such a median. A median needs to meet the needs of pedestrians, the motoring public, local businesses and the Municipality. There has always been a concern about the ability to install a median within the existing right-of way of Sackville Drive. If the median cannot be installed within the right-of-way, a costly land acquisition program and capital works project would be required to acquire adequate lands for the construction of the median and relocation of adjacent infrastructure (power poles, curb, gutter and sidewalk).

It became apparent early in the study process that the median proposed for Sackville Drive was only practical along that portion of Sackville Drive located between Riverside Drive and Beaver Bank Road. It was determined that the median could not be designed such that it would be acceptable to all user needs (including cyclists) without acquiring additional right-of-way. The staff steering committee instructed the consultant to develop a median only where possible within the existing right-of-way.

The results of the study were presented to the public at an open house on December 3, 2003. Members of the public who attended were not satisfied with the lack of a median along a large portion of Sackville Drive. A final report (Attachment B) was presented to HRM on February 6, 2004 and provided to North West Community Council on July 8, 2004.

The study recommended that improvements be made to Sackville Drive without a median being constructed along the entirety of the street as suggested in the Secondary Planning Strategy. Subsequent to this presentation of the study to the public and Council, there was deep concern in the community regarding the results of the study. As a result, Traffic Services commissioned a supplementary study into the possibility of constructing a limited median between Riverside Drive and Pinehill Drive, even if land acquisition was required. The Functional Analysis for the Riverside Drive to Pinehill Drive portion of Sackville Drive is provided as Attachment A

DISCUSSION

The supplementary study focussed on the following six issue areas:

Existing Right-of-Way: The current ROW varies between 20 to 25 metres. The study found that a significant amount of additional land will need to be acquired in order to accommodate a median.

Proximity of Businesses to Sackville Drive: The study indicates that many buildings and parking lots are immediately adjacent to Sackville Drive in the Pinehill Drive to Riverside Drive corridor. Acquisition of additional land for median will reduce available parking and any land required for landscaping along Sackville Drive will further reduce available space for parking.

Driveway Access: The study found that the location, spacing and design of driveways along Sackville Drive are not conducive to the construction of a median. Rationalization / consolidation of driveways is recommended along with improved internal circulation between properties to reduce the number of conflict areas. The median will also require that gaps be strategically placed to allow for turning. The Sackville Drive Secondary Plan and Land Use By-law may require amendments to implement consolidation of driveways.

Sidewalk: Sidewalks located along Sackville Drive are located close to the street, thereby exposing pedestrians to spray from vehicles in wet or snowy weather and the lack of separation between pedestrians and traffic may lead to a high level of discomfort for pedestrians. The acquisition of

additional land to increase the right of way width would be required in order to alleviate this problem.

Roadway Capacity: The existing vehicle capacity of Sackville Drive is limited by numerous turning vehicles and closely spaced intersections.

Relocation of Utility Poles: A new alignment will require that a significant number of power poles and associated telephone, power and cable infrastructure be relocated.

The study identified several benefits and disadvantages of implementing medians and driveway consolidations:

Benefits:
- reduced traffic congestion
- improved traffic and cyclist safety
- improved aesthetics with wider sidewalks, fewer driveways and a greater separation between pedestrians and vehicles
- provide opportunities to increase landscaping
- act as a catalyst for redevelopment and a renewed sense of community

Disadvantages:
- medians will restrict left turns. This will lead to a reduction in the ease of access to many businesses and may promote short cuts, illegal turnarounds and u-turns.
- driveway consolidation may not be considered desirable by the businesses and will require cooperation and a commitment to a long term plan
- snow storage within the proposed bicycle lane could limit its use during the winter months
- a significant investment in land acquisition and infrastructure upgrades would be required

The study indicates that the anticipated cost of constructing a median between Riverside Drive and Pinehill Drive would be approximately 5.8 million dollars. A detailed breakdown of the estimate is provided on page 5 of Attachment A. The total estimate includes $3.8 million in construction costs and $1.9 million in land acquisition costs.

Conclusion:

It was anticipated that, upon completion of the supplementary study, Planning and Development Services and Traffic Services would hold another Open House in order to obtain public input. However, given the estimated costs associated with constructing a median between the Riverside and Pinehill Drive intersections, staff feel that proceeding further with plans to implement the Functional Design Study is not economically viable at this time.

Rather than undertaking expensive street improvements, there may be other investments which would provide a similar benefit to Sackville Drive at a much lesser cost. These could include any of the action items identified in the SPS which are attached as Attachment C. Should Council wish to pursue any of the projects identified in the Action Plan, staff will endeavour to provide any cost estimates and additional analyses that may be required and report back to Council. Any expenditures related to further studies or capital works not identified in current municipal budgets will require the approval of Regional Council.

BUDGET IMPLICATIONS

None

FINANCIAL MANAGEMENT POLICIES / BUSINESS PLAN

This report complies with the Municipality's Multi-Year Financial Strategy, the approved Operating, Capital and Reserve budgets, policies and procedures regarding withdrawals from the utilization of Capital and Operating reserves, as well as any relevant legislation.

ALTERNATIVES

1. Council may choose not to proceed further with implementation of the Functional Design Study. This is the staff recommendation.

2. If it is Council's desire to see a median constructed along portions of Sackville Drive, then further estimates related to local improvement charges and capital budgets can be undertaken. Council should clearly identify the section(s) of Sackville Drive where improvements should be undertaken. Any expenditures related to further studies or capital works not identified in current municipal budgets will require the approval of Regional Council.

3. A third option might be to identify other actions which may not be identified in the Sackville Drive action plan. Again, staff will undertake any analyses and prepare cost estimates associated with any other options Council may identify.

ATTACHMENTS

Attachment A	Sackville Drive - Functional Analysis - Riverside to Pinehill - August 2004
Attachment B	Sackville Drive - Functional Analysis - February 2004
Attachment C	Sackville Drive SPS - Action Table

Additional copies of this report, and information on its status, can be obtained by contacting the Office of the Municipal Clerk at 490-4210, or Fax 490-4208.

Report Prepared by: Andrew Bone, Planner, 869-4226

Attachment A

O'HALLORAN CAMPBELL
consultants limited

1657 Bedford Row, P.O. Box 1028, Halifax, Nova Scotia, B3J 2X1

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September 13, 2004

Mrs. Erica Copeland, P. Eng.
Transportation Engineer
Halifax Regional Municipality
Public Works and Transportation
Traffic and Transportation Services
PO Box 1749
Halifax, NS B3J 3A5

Dear Mrs. Copeland:

SACKVILLE DRIVE - FUNCTIONAL ANALYSIS
RIVERSIDE TO PINEHILL

We are pleased to provide the following brief working paper, as requested.

BACKGROUND

Halifax Regional Municipality (HRM) wishes to improve the functionality of Sackville Drive, from Riverside Drive to Pinehill Drive, to provide safer access/egress to abutting properties and side streets, and to improve pedestrian and cyclist safety. HRM's intent is to provide an aesthetically pleasing landscaping treatment with consideration to pedestrians and cyclists while providing a more efficient and safe road.

An initial streetscaping study was conducted by Ekistics in January, 2001 and some of the study recommendations included the following:

- Implement raised median on Sackville Drive.
- Bring street down to a pedestrian scale.
- Create an identity for Sackville.

We conducted a follow-up feasibility and functionality study which was to evaluate the transportation aspects of the Ekistics recommendations within the existing right-of-way. It was concluded that implementation of the median would require land acquisition.

This study investigated provision of a five lane cross-section (four lanes plus a median and accommodation of cyclists sharing the curb-lane), the required land acquisition, estimated costs and provision of functional plans depicting the five lane cross-section and longer term driveway consolidations.

D. P. O'HALLORAN, M.SC., P.ENG., MEIC.
FCSCE, FASCE, FICE.

W. G. CAMPBELL, B.E., LLB.,P.ENG., FEIC

The section of Sackville Drive from Riverside Drive to Pinehill Drive includes several fast food restaurants, strip mall plazas, Acadia School (former school - library & offices), motel, churches, drug stores, banks and used car lots. Development has the appearance of being somewhat unplanned. There is a lot of concrete and asphalt with little landscaping and there is poor definition of properties with little or no buffer between properties and the sidewalks. The area lacks aesthetics, landscaping and street furniture. From a traffic perspective the area is characterised by:

- heavy traffic congestion,
- frequent turning movement conflicts,
- heavy vehicular and truck traffic volumes,
- higher than desirable traffic speed,
- infrequent pedestrian crossing opportunities,
- narrow sidewalks near the road,
- excessively frequent and wide driveways resulting in inefficient access/egress to various businesses, and
- closely spaced signalized intersections causing poor vehicle progression.

Overall this area is considered congested and somewhat in need of upgrades.

This working paper summarizes the design criteria used for the functional design, identifies some of the existing key issues, outlines the benefits and disadvantages of the new proposed functional plan, summarizes the order of magnitude cost estimate, and provides implementation suggestions. The functional plan (Dwg. Nos. 1230-1-1 and 2, Rev. No. 3, Sept. 13/04) is included under the same cover as the working paper.

DESIGN CRITERIA

The following design criteria, as agreed with HRM, was used for the functional design of Sackville Drive from Riverside Drive to Pinehill Drive:

- Four driving lanes plus a designated shared left turn lane/exclusive left turn lane/landscaped median.
- Cross-section elements include 2 m sidewalk on both sides, 1.1 m sodded boulevard between the sidewalk and curb, 0.4 m curb offset to lanes, 1.2 m designated bikelane on both sides, 3.3 m driving lanes and a 2.2 m median. The proposed typical right-of-way (R.O.W.) width is 26 m which includes a 0.2 m clearance from the back of sidewalk to the property line (see SK-1230-1-3 on the following page). A wider R.O.W. may be required at retaining structures.
- The transition between the existing four lanes and the proposed five lanes at the Sackville/Riverside intersection and at the Sackville/Pinehill intersection.

- The horizontal alignment to minimize required land acquisition, provide a best fit within the existing right-of-way and provide a meandering alignment as much as possible.
- Median island tree spacing at 15 m centres minimum, starting 15 m from end of median.
- 1.2 m bike lane on either side designated with pavement markings (solid white line).
- Traffic signals at the Sackville/Leaside and Sackville/Florence intersections to be removed and intersections to be right-in/right-out intersections.
- RA-5 pedestrian crossings should be considered on Sackville between Florence and Leaside and between Riverside and Sackville Cross (feasability to be determined by HRM in the future).
- The requirement to relocate/replace utility poles was identified however, the exact relocations/replacements were not shown on the plans. This will require input from NSPI/Aliant and will require different pole anchors and new pole anchor easements.

The cross-section agreed with HRM was developed based on the Transportation Association of Canada (TAC) Geometric Design Guidelines and HRM's Municipal Services Systems Specifications. A narrower 1.1 m wide boulevard (between the sidewalk and the curb) was deemed acceptable due to the adjacent 1.2 m wide bike lane, rather than a vehicle lane.

KEY ISSUES

The key issues in conducting the functional design of Sackville Drive from Riverside Drive to Pinehill Drive include the following:

- ***Existing Right-of-Way***: varies from 20 to 25 m requiring significant land be acquired to achieve 26 m R.O.W.

- ***Business Proximity:*** to the road, including buildings and parking lots, tends to be tight to the back of the sidewalk. Businesses are using the existing R.O.W. for parking. The new alignment and wider cross-section will cause a reduction in parking. Any required landscaping buffer will further reduce parking and this should be contemplated in the planning and development requiremetns.

- ***Property Access***: There are many driveways on Sackville from Riverside to Pinehill that are poorly laid out, excessively wide, closely spaced to signalized intersections and to other driveways, with no definite boundaries.

- ***Sidewalk Use***: The sidewalk is close to the road exposing pedestrians to spray and splash from vehicles and overall reduction in comfort and aesthetics. Also, numerous and excessively wide driveway cuts create safety concerns for crossing these access/egress points.

- ***Capacity***: Existing capacity on Sackville Drive is diminished by numerous traffic turning opportunities (conflicts), excessive entrances/driveways, and closely spaced signalized intersections (particularly in the Leaside/Sackville Cross/Florence area).

- ***Existing Utility Poles***: With the new proposed horizontal alignment, utility poles that are located at the back of the existing sidewalk would have to be relocated to the propose 1.1 m boulevard.

BENEFITS OF THE PROPOSED FUNCTIONAL PLAN

The following benefits may result from the proposed five lane cross-section:

- Reduce traffic congestion and improve safety by minimizing the number and frequency of turning opportunities/conflicts.
- Improve aesthetics for pedestrians with wider sidewalks further from traffic and with fewer driveway crossings.
- Provide cycling lanes and make more cyclist friendly with fewer driveways.
- Provide opportunity for landscaping, and streetscaping which could provide an identifiable destination and improved aesthetics.
- Act as a catalyst for re-development and sense of community.

DISADVANTAGES OF THE PROPOSED FUNCTIONAL PLAN

The following disadvantages may result from the proposed five lane cross-section:

- Medians will restrict left turns, which will alter traffic patterns and make access/egress to businesses more circuitous, increasing the possibility of short cuts, turnarounds and illegal u-turns. This may require enforcement and would have to be addressed on a site specific basis.
- Driveway consolidations may not be viewed as desirable by businesses, and will require cooperation to implement longer term planning and development regulations.
- Snow storage may utilise the bike lane during the winter months, restricting use.

ORDER OF MAGNITUDE COST ESTIMATE

The order of magnitude cost estimate was based on the following:

- Unit prices based on HRM's 1999 price guide with 1% compound inflation per annum over five years.
- The pavement/gravel structure based on HRM's Urban Arterial standard detail (ie, 50 mm Type C asphalt, 100 mm Type B asphalt, 150 mm Type 1 gravel and 600 mm Type 2 gravel). We understand that Sackville Drive is currently classified as a major collector, however

consideration is being given to reclassify it as an arterial. The existing road structure could be used, however this would have to be confirmed through a geotechnical program.

- 35% contingency included, as requested by HRM.
- Estimate excludes HST.
- Unit price for land acquisition was $\$310/m^2$ ($\$28/ft^2$) as advised by HRM.

The order of magnitude cost estimate is summarized in the following table and it is divided into two parts; Part I - General Construction and Part II - Land Acquisition;

PART I - GENERAL CONSTRUCTION		
Item No.	***Description***	***Price ($)****
1	Excavation/Site Grading	270,000
2	New Road Including Asphalt, Gravel, Curb and Gutter, Pavement Markings, Adjust Manholes/Catchbasins/Valves	1,620,000
3	Sidewalks	310,000
4	Retaining Walls	300,000
5	Other (Sign bases, Trees, Topsoil and Sod)	120,000
6	Removal of Traffic Signals	40,000
7	Traffic Control Allowance	100,000
	Sub-Total	2,760,000
	35% Contingency	1,000,000
	Total	3,760,000
	Say	3,800,000
PART II - LAND ACQUISITION		1,310,000
	35% Contingency	500,000
	Total	1,810,000
	Say	1,900,000
	TOTAL	5,700,000

The order of magnitude cost estimate was based on *2004 unit prices.

CONCLUSIONS/SUGGESTIONS

1. The Functional Plan should be used as the long term goal to be implemented through ongoing development and re-development.

2. Driveway consolidations as shown on the Functional Plan are intended as a guide for planning purposes. As redevelopment occurs, the driveway configurations and consolidation requirements may change.

3. Driveway consolidations should be actively promoted and HRM should take a lead role with the businesses and land owners.

4. Pedestrian crossing opportunities should be located close to the desire lines and where suitable sight distance exists.

5. Streetscaping features such as street furniture, lighting, signage, etc. should be implemented to promote the sense of community and identity and to improve aesthetics.

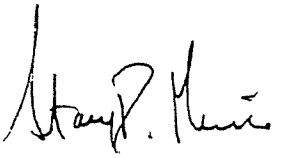
6. Prior to adding landscaping to the area, a landscape architect should be engaged to develop guidelines and a theme.

7. HRM should liaise with the appropriate utilities in order to assess the impacts the Functional Plan will have on the existing poles (currently at the back of the sidewalk).

We trust the foregoing final working paper is acceptable. If you have any questions, please call us. Thank you.

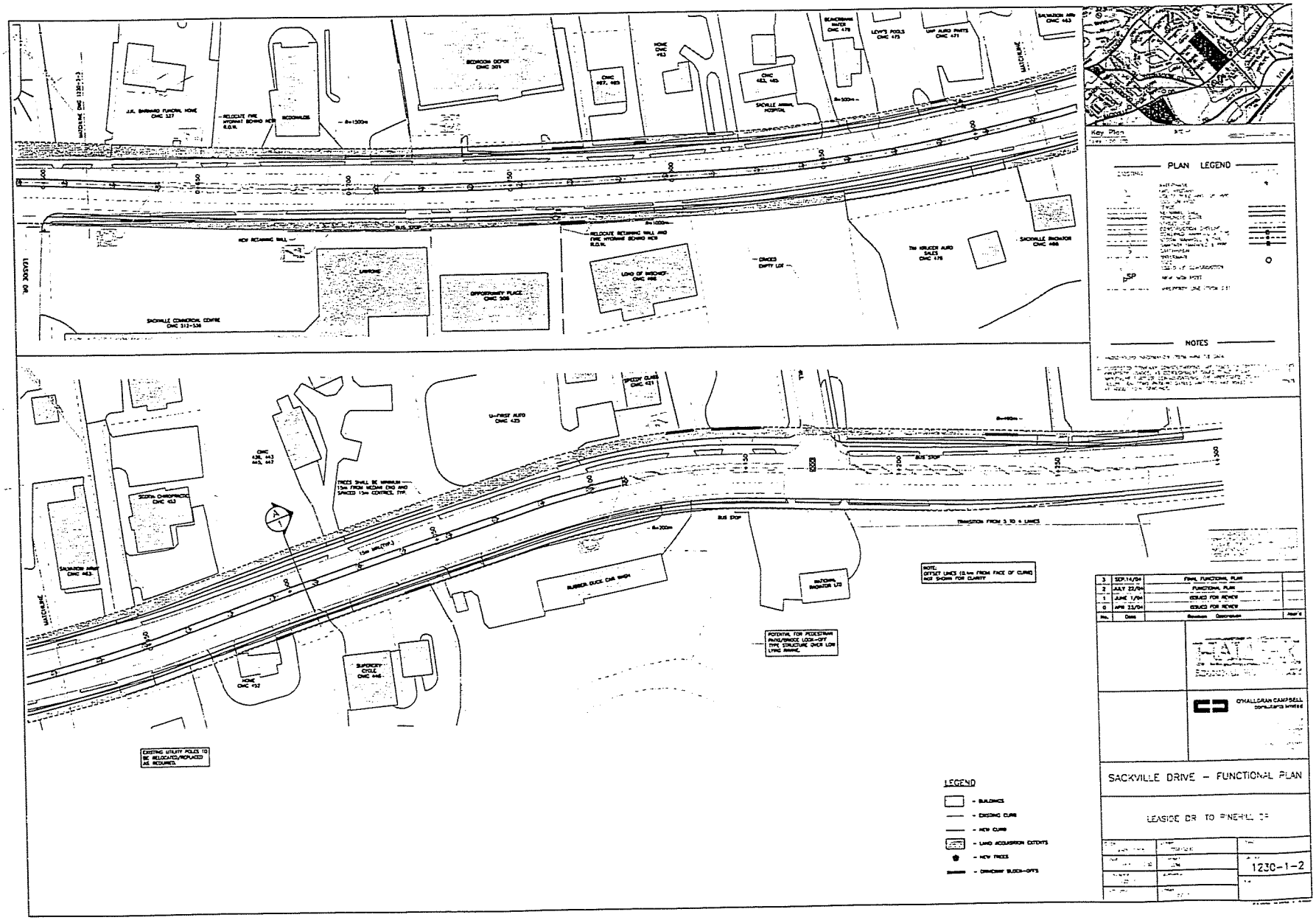
Yours very truly,

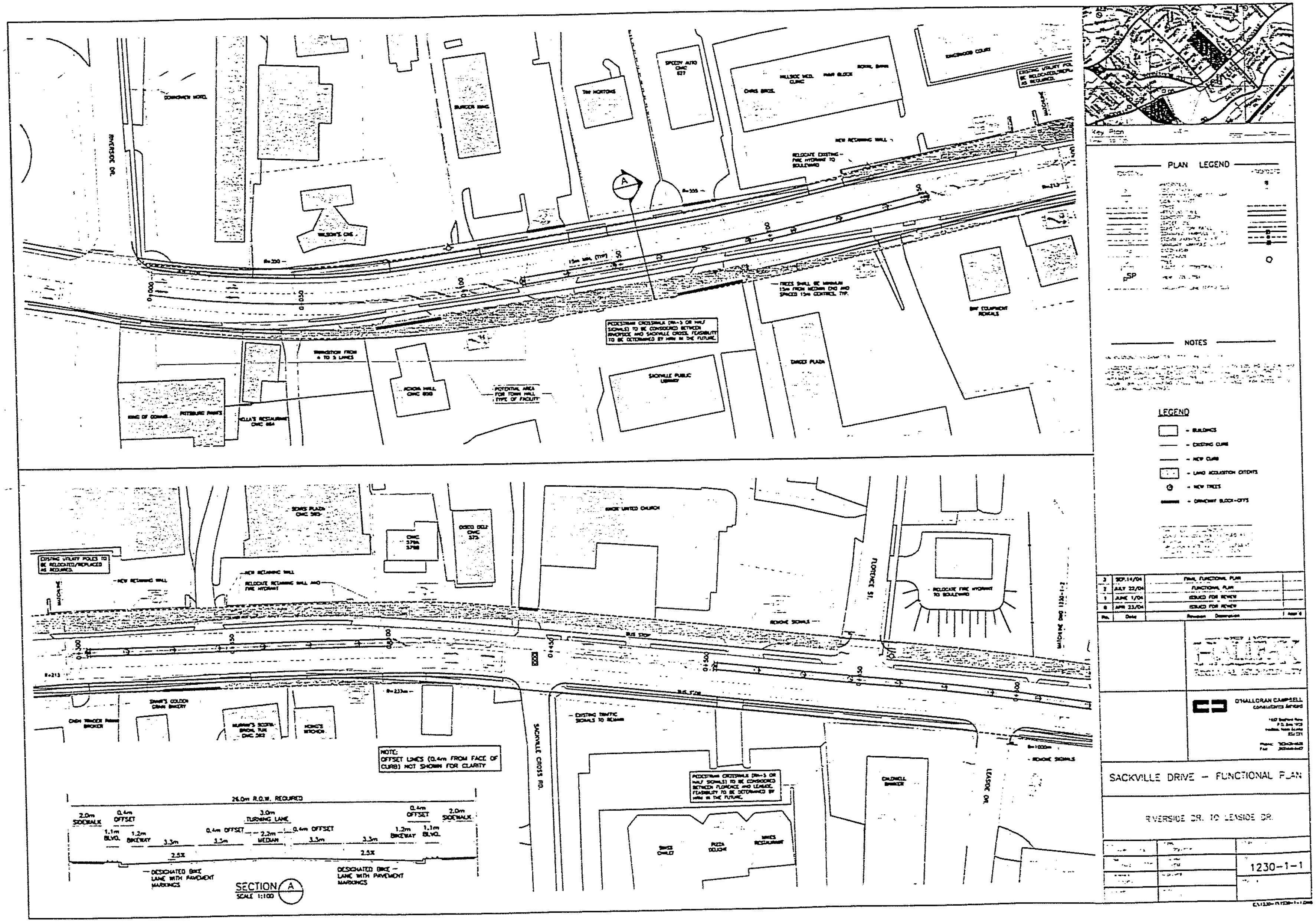
O'HALLORAN CAMPBELL CONSULTANTS LIMITED



Jon Eppell, P.Eng./Stacy Muise, P.Eng.

SDM/lw
1230-1
Enclosure
cc: Andrew Bone
Paul Burgess
Roxanne McGinnis
Ken Reashor


Key Plan
PLAN LEGEND
NOTES
LEGEND
- BUILDINGS
- EXISTING CURB
- NEW CURB
- LAND ACQUISITION EXTENTS
- NEW TREES
- DRIVEWAY BLOCK-OFFS
EXISTING UTILITY POLES TO BE RELOCATED/REPLACED AS REQUIRED.
POTENTIAL FOR PEDESTRIAN PATH/BRIDGE LOOK-OFF TYPE STRUCTURE ONCE LOW LYING AWARE.
NOTE: OFFSET LINES (0.5m FROM FACE OF CURB) ARE SHOWN FOR CLARITY
TRANSITION FROM 3 TO 4 LANES
SACKVILLE DRIVE - FUNCTIONAL PLAN
LEASIDE DR TO PINEHILL DR
1230-1-2
O'HALLORAN CAMPBELL


RIVERSIDE DR.
SACKVILLE CROSS RD.
FLORENCE ST.
LEASIDE DR.
SACKVILLE PUBLIC LIBRARY
TIM HORTONS
BURGER KING
BAY EQUIPMENT RENTALS
NEW RETAINING WALL
BUS STOP
NOTE: OFFSET LINES (0.4m FROM FACE OF CURB) NOT SHOWN FOR CLARITY
26.0m R.O.W. REQUIRED
2.0m SIDEWALK
0.4m OFFSET
1.1m BLVD.
1.2m BIKEWAY
3.3m
0.4m OFFSET
3.0m TURNING LANE
2.2m MEDIAN
3.3m
2.5%
DESIGNATED BIKE LANE WITH PAVEMENT MARKINGS
SECTION A
SCALE 1:100
PLAN LEGEND
NOTES
LEGEND
- BUILDINGS
- EXISTING CURB
- NEW CURB
- LAND ACQUISITION EXTENTS
- NEW TREES
- DRIVEWAY BLOCK-OFFS
O'HALLORAN CAMPBELL consultants limited
SACKVILLE DRIVE – FUNCTIONAL PLAN
RIVERSIDE DR. TO LEASIDE DR.
1230-1-1

Attachment B

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February 6, 2004

Mrs. Erica Copeland, P. Eng.
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Public Works and Transportation
Traffic and Transportation Services
PO Box 1749
Halifax, NS B3J 3A5

Dear Mrs. Copeland:

FUNCTIONAL ANALYSIS OF THE PROPOSED STREETSCAPE DESIGN FOR SACKVILLE DRIVE

We are pleased to provide the following brief study report, as requested.

BACKGROUND

Halifax Regional Municipality (HRM) had some functionality and feasibility concerns with some of the recommendations from the Sackville Drive Streetscape Design Study (January 2001), which proposed creative ways to improve the aesthetics of Sackville Drive, including medians. The study treated Sackville Drive in three zones with recommendations as follows, as well as other recommendations related to signage, parks, plantings, lighting and street furniture:

- ***Downsview - Beaverbank*** (Beaverbank Connector to Riverside Drive/Little Sackville River) includes service stations, strip malls, fast food and big box retail stores, such as Downsview Mall, Wal-mart and Superstore. Streetscape treatment- planted (e.g. flowers, shrubs, bushes, trees) median.

- ***Pedestrian Retail*** (Riverside Drive to Pinehill Drive) includes various fast food restaurants, strip mall type plazas, Acadia school, churches and used car lots. Streetscape treatment - vegetated (e.g. sod) median and consolidation of driveways. There are several focal points intended for this zone, such as Fenerty Square, Fenerty Park, Acadia Library, Sackville River Centre.

- ***Pinehill - Cobequid*** (Pinehill Drive - Fultz House at Cobequid Road) includes a sizeable cemetery, residential, smaller local businesses, service stations, many used car lots, small strip mall/offices and a large building supply store. Streetscape treatment - planted median and possible driveway relocation.

The intent was to give Sackville Drive a 'Main Street' identity and feel, to be aesthetically pleasing bringing the street down to a pedestrian scale (more pedestrian friendly) and providing an efficient, safe road.

Sackville Drive is a four lane Major Collector, with 1.5 m wide sidewalks on both sides with a narrow sod border of about 0.9 m. There is no bicycle lane along Sackville Drive. There are additional turning lanes in the Downsview - Beaverbank Zone. There are numerous driveways, some of which are nearly the full width of the properties, which is most apparent in the Pedestrian Retail Zone.

For pedestrians, Sackville Drive is characterized by infrequent crossing opportunities, poor access/egress to businesses, narrow sidewalks close to the road, heavy truck and delivery van traffic volumes, and vehicles travelling at high speeds. For vehicular traffic the primary concerns are congestion and safety which are impacted by frequent turning opportunities and lack of turning lanes.

HRM retained O'Halloran Campbell to review the functionality and feasibility of a possible median on the basis that the addition of the median was to remain within the existing right-of-way, and to prepare functional drawings for the Downsview - Beaverbank Zone and preliminary plans for the Pedestrian Retail and the Pinehill - Cobequid Zones. The review of the median concept was to include the identification of issues and solutions, development of cross-section(s), and suggested driveway consolidations.

KEY ISSUES

Some key issues were:

- ***Existing right-of-way***: The existing right-of-way varies from about 20 to 25 m and HRM did not wish to acquire additional land. The direction was to make the cross-section fit within the existing right-of-way, which is nearly taken up by the existing four lanes and sidewalks.
- ***Business proximity to the road***: Businesses (buildings or parking areas) tend to be very close to the back of sidewalk creating further cross-section issues.
- ***Property access***: There are numerous driveways, many of which are excessive in width, have close spacings and are unpredictable. Many properties have more than one driveway access to Sackville Drive and/or the driveway(s) are wider than considered appropriate. These create frequent turning possibilities and reduce the through flow capacity on Sackville Drive. There are also implications for safety. Implementation of a median would mean that many driveways would have access as a right-in/right-out only. Businesses utilizing large vehicles

for deliveries, would require better access than others and the if large vehicle deliveries are frequent then it would be desirable to provide full access.

- ***Sidewalk use***: The sidewalk is close to the road, increasing the likelihood of spray and splash from vehicles and reducing pedestrian comfort and aesthetics. Driveway widths are excessive and numerous, effectively creating numerous intersections to cross and increasing the pedestrian exposure to conflicts with vehicles.
- ***Capacity***: The existing capacity on Sackville Drive is diminished by the frequent turning movement opportunities, rendering the centre lane as a left turn lane in many places, and the curb lane as a right turn lane in other places. The driveway spacings are close and unpredictable. In addition there are three closely spaced signalized 'T' intersections, which have a negative impact on traffic flow.
- ***Big Box businesses***: For Downsview - Beaverbank the larger developments appear to have appropriate access.
- ***Existing utility poles***: The utility poles are close to the back of the existing sidewalk and would likely have to be relocated if the back of sidewalk is moved.
- ***Snow removal***: There is minimal snow storage space between the curb and sidewalk creating an operating challenge.
- ***Bicycles***: Sackville Drive is identified as a cycling route in the HRM Cycling Master Plan, but it does not accommodate cyclists.

FUNCTIONAL DESIGN FOR DOWNSVIEW - BEAVERBANK

The functional design for the Downsview - Beaverbank Zone was completed and the drawings were provided to HRM on October 23, 2003. For the most part the functional design provides median islands in place of the existing painted islands. There were some compromises made near the Beaverbank Connector in order to be sensitive to driveway access for existing developments. The existing lane configurations were maintained. The functional design did not include provision for cyclists in the curb lane. This would require widening of the curb lane, which could be achieved by widening the road. Where medians are proposed the wider curb lanes might be achieved by narrowing the proposed medians rather than widening the road.

FEASIBILITY AND FUNCTIONALITY OF PEDESTRIAN RETAIL AND PINEHILL - COBEQUID

HRM required that the median be implemented with four lanes within the existing right-of-way, resulting in competing interests for the available cross-section as follows:

- lane reductions versus maintaining/improving current capacity
- narrowing lanes versus accommodating cyclists
- placing the sidewalk at the back of the curb versus the streetscaping goals of improving/accommodating pedestrian flow and addressing pedestrian concerns.

It was desired that the median be vegetated and on this basis the following minimum median widths were identified:

- 1.2 m wide for sod or small hearty shrubs.
- 2 m wide for trees with small root bulbs, however it is preferable that the median width be greater (as wide as possible) to protect trees from vehicles.
- 2.4 m wide for a 3.0 m shared left turn lane where the median would be periodically interrupted at intersections and driveways.

Cross-sections were developed using information from the Transportation Association of Canada (TAC) Geometric Design Guidelines and HRM's Municipal Service Systems. In general the guideline lane widths were intended for new construction and would necessitate a wider right-of-way than currently exists for a four lane road. Four potential cross-sections were developed and they were presented and discussed as follows:

1. ***Five Lane Cross-Section*** - In order to provide a reasonable lane width, including allowances for cyclists, snow storage, and landscaping, and suitable widths for pedestrians, a wider road cross-section was required which would not fit within the existing right-of-way (see sketch SK-1230-1). This cross-section was approximately 29 m wide and would require a fair amount of land acquisition. The suggested dimensions were based on TAC guidelines.

   The five lane cross-sections would provide greater traffic capacity than the existing four lanes.

2. ***Alternative Five Lane Cross-Section*** - A compromise cross-section was developed, which was fitted within the existing right-of-way, but did not allow for cyclists, had minimal snow storage and maintained the existing sidewalk width (see sketch SK-1230-2). This cross-section was approximately 20 m wide and minimal land acquisition (if any) would be required.

   The compromise cross-section was not considered cyclist friendly (curb lane should be widened by approximately 0.7 m for cyclists), and the sidewalk width in the Pedestrian Retail Zone should be wider. The sidewalk would remain at 1.5 m wide and be placed at the back of the curb requiring the sidewalk to drop down at each driveway. The cross-section did not allow for retaining walls and snow storage space would be minimal. The existing utility poles at the back of the existing sidewalk may conflict with the proposed sidewalk in the alternative cross-section. Initially a median layout was developed based on this cross-section, but it was ultimately determined that the cross-section was too much of a compromise and it would not be functional. The narrower lanes would had implications for the significant turning volumes and did not meet the goals of the streetscaping, i.e. pedestrian scale. It was agreed that the median could not be implemented within the existing right-of-way with four lanes. Further analysis of this option was not undertaken.

3. ***Three Lane Cross-Section*** - It was suggested that the traffic volumes may be low enough to permit a reduction from the existing four lanes to a three lane cross-section through the Pedestrian Retail Zone (one through lane in each direction and a shared left turn lane) (see sketch SK-1230-3). This cross-section allowed for the existing sidewalks to remain, but provided a wider area between the curb and sidewalk. This cross-section had some allowance for cyclists, snow storage, and landscaping with suitable widths for pedestrians.

   The three lane cross-section would be similar to Bedford Highway between the Dartmouth Road and Union Street. The 2001 Average Annual Weekday Traffic (AAWT) volume on Bedford Highway was about 25,000 vpd (with significant traffic congestion, i.e. bumper-to-bumper) compared to nearly 24,000 vpd along Sackville Drive. The peak hourly volumes on Bedford Highway were in the order of 900 vph, compared to 950 to 1,100 vph westbound on Sackville Drive. It was considered undesirable to design for this level of congestion along Sackville Drive if an alternative existed.

   There would be little reserve capacity for future growth, seasonal fluctuations and emergency situations for the westbound direction. With lane capacity completely saturated, traffic congestion would likely increase and land access would become increasingly difficult.

   The three lane option was not preferred.

4. ***Four Lane Cross-Section (two westbound and one eastbound with shared left turn lane)*** - This cross-section (see SK-1230-4) would accommodate more outbound (westbound) than inbound traffic through the Pedestrian Retail Zone, which appeared to be the case from the available traffic counts. This cross-section would have some allowance for cyclists, however snow storage was minimal and the sidewalk width and location would not be improved from the existing.

   The concept of providing more lanes in one direction was developed based on the morning and afternoon peak hour volumes where there appeared to be a consistently lower volume eastbound than westbound. Traffic volumes are summarized on the following page for the Pedestrian Retail Zone.

   It appeared that there should be sufficient capacity with one lane eastbound and two lanes westbound to accommodate the 725 vph and 1141 vph, respectively, with some reserve capacity. There would be more congestion in the eastbound direction than currently occurs, but there should be a reduction in the westbound congestion. This would require further data collection and study for a longer period before a determination could be made on the feasibility. In practice it was considered highly undesirable to reduce Sackville Drive, a Major Collector with significant traffic volumes, from four to three lanes.

Source	*Peak Hour Period*	*Eastbound Traffic Volumes (vph)*	*Westbound Traffic Volumes (vph)*
Comprehensive Transportation Study for Sackville 1995	a.m.	Not Available	Not Available
	p.m.	725	1141
HRM Manual Counts - 1997	a.m.	455	385
	p.m.	645	925
HRM Manual Counts - 1998	a.m.	495	390
	p.m.	495	945
HRM Manual Counts - 2000	a.m.	505	410
	p.m.	515	815

Driveway consolidations were considered desirable to reduce the number of access points on Sackville Drive, improve traffic flow and provide more predictable driveway spacings. Some suggestions for improving the driveway throat widths, curb radii and throat distances were provided. Driveway consolidations should provide for additional parking, however it would be desirable to relocate signage so that it is positioned adjacent the appropriate driveway for clear driver guidance.

Implementation would require cooperation between adjacent landowners and businesses or be required as larger developments replace smaller developments. There are examples of driveway consolidations and their implementation on Sackville Drive.

The criteria for driveway consolidations was to provide approximately a 60 m spacing along Sackville Drive and provide for as much internal circulation as possible. Driveways should provide a corner clearance from intersections of about 40 m. The driveway consolidations were prepared as a guide based on the existing developments and are intended for longer term implementation. It will be necessary to carry out a site specific driveway consolidation design in consultation with the businesses/land owners or as redevelopment takes place.

It would also be desirable to improve and reduce the three closely spaced intersections on Sackville Drive (Sackville Cross Road, Florence Street and Leaside Drive). This could include consolidation of Sackville Cross Road and Leaside Drive to one road intersecting Sackville Drive. The consolidated road could be aligned with Florence Street or signals removed from one or more of the intersections. The intent would be to improve traffic flow along Sackville Drive.

It was agreed that compromises in the cross-section to accommodate median were not practical nor desirable. It was also agreed that the median was important for implementation of the recommendations in the Sackville Drive Streetscape Design Study, but it would require additional

right-of-way. HRM provided the following direction for the Pedestrian Retail and Pinehill - Cobequid Zones:

- provision for cyclists was to be included in the cross-section.
- cross-section was to stay within right-of-way.
- preliminary plans to show no median and suggested future driveway consolidations.

The selected cross-section is four lanes with wider curb lanes so that it can be shared with cyclists and 1.5 m wide sidewalks each side. A 0.9 m sod strip was maintained between the sidewalk and the road where possible, however compromises were required at Civic Nos. 341 and 271/281 (near Skyridge Avenue) in order to stay within the existing right-of-way and avoid existing retaining walls. The preliminary drawings were provided to HRM on October 23, 2003.

PUBLIC OPEN HOUSE COMMENTS

A Public Open House was held on the evening of December 3, 2003. The Downsview - Beaverbank functional plans and the preliminary plans for the Pedestrian Retail and Pinehill - Riverside Zones were displayed. Reduced copies of the drawings are attached for information. The intent was to present to the publ ic improvement scenarios that were realistic, achievable and fit within the right-of-way. Approximately 15 people attended the open house and their comments were as follows:

- Plans did not provide for streetscaping as expected in the Pedestrian Retail and Pinehill - Cobequid Zones.
- Landscaped medians should be provided throughout the study area.
- More pedestrian access and crossing points should be provided between Riverside and Cobequid.
- More landscaping overall is required throughout. Make Sackville Drive a destination and town centre.
- Sackville Drive should be widened to accommodate bike lanes and they should be delineated by painted lines along the outer edge of the curb lanes.
- The objective should be to transform Sackville Drive into a community centre, friendly to pedestrians, cyclists and others.
- A fifth lane (i.e. a shared left turn lane) should be provided throughout Sackville Drive between Cobequid Road and the Beaverbank Connector.

CONCLUSIONS

It is considered that the long term goal should be to provide space for cyclists, snow storage and wider sidewalks, while providing adequate traffic capacity. The ideal solution would be a five lane cross-section, but this may be cost prohibitive and would involve land acquisition. The following suggestions are provided for HRM's consideration:

1. The functional plans for Downsview - Beaverbank should be updated to include provision for cyclists in the curb lanes.
2. HRM should obtain additional right-of-way, particularly in the Pedestrian Retail Zone, in order to implement a median, wider sidewalks, a wider separation between the sidewalks and the road, and other streetscaping as noted in the Sackville Drive Streetscape Design Study.
3. Planning should implement driveway consolidations, driveway throat distances and setbacks from the sidewalk as part of the development requirements for Sackville Drive.
4. Driveway consolidation should be actively promoted and HRM could take a lead role with the businesses/land owners. Driveway consolidation would improve the traffic flow on Sackville Drive.
5. HRM should review the three closely spaced intersections on Sackville Drive with a view to consolidating Sackville Cross Road and Leaside Drive, realigning the consolidated road with Florence Street or review the possibility of removing traffic signals from one or more intersections.

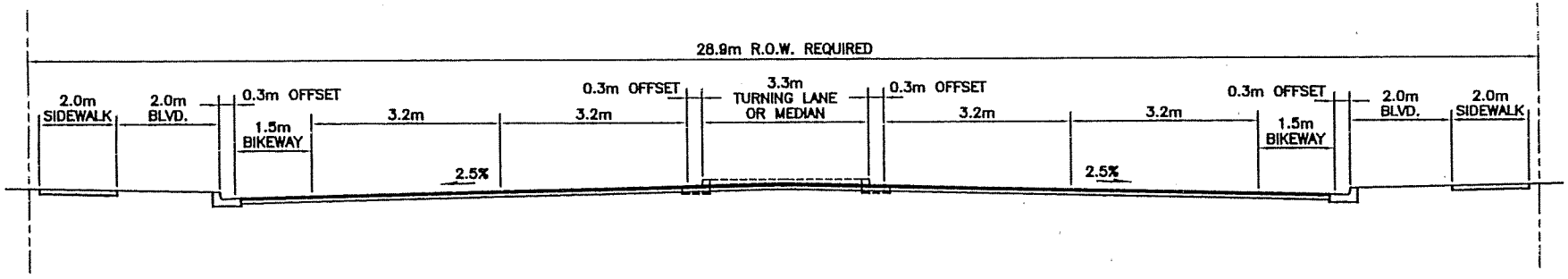
We trust that the foregoing report is acceptable. Please call us if you have any questions or require assistance.

Yours very truly,

O'HALLORAN CAMPBELL CONSULTANTS LIMITED

Jon D. Eppell, P.Eng.

/jde
1230



CROSS SECTION

NTS

NOTES:

1. 5 LANE CROSS SECTION.
2. REASONABLE LANE WIDTHS.
3. ALLOWANCE FOR CYCLISTS AND SNOW STORAGE.
4. SUITABLE WIDTHS FOR PEDESTRIANS.

O'HALLORAN CAMPBELL consultants limited	
HRM	
SACKVILLE STREETSCAPE	
FIVE LANE CROSS SECTION	
SK-1230-1	NOV. 2002

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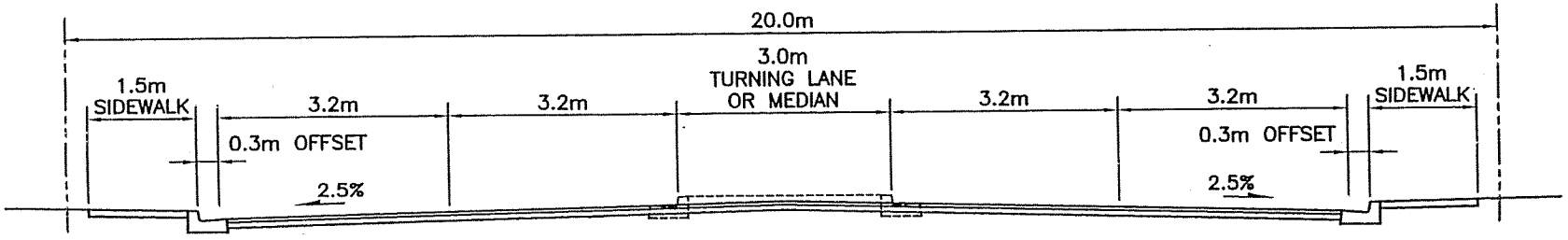

CROSS–SECTION

NTS

NOTES:

1. CURB LANES WILL NOT ACCOMMODATE CYCLISTS.
2. NO ON–STREET PARKING
3. SIDEWALK IS CLOSE TO CURB LANE (MAY BE UNPLEASANT FOR PEDESTRIANS).
4. MAINTAINS EXISTING SIDEWALK LOCATION AND UTILITY POLES. NO LAND AQUISITION. NO RETAINING WALL CHANGES.
5. FITS WITHIN THE EXISTING RIGHT OF WAY.

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HRM	
SACKVILLE STREETSCAPE	
ATTERNSTIVE FIVE LANE CROSS SECTION	
SK–1230–2	NOV. 2002

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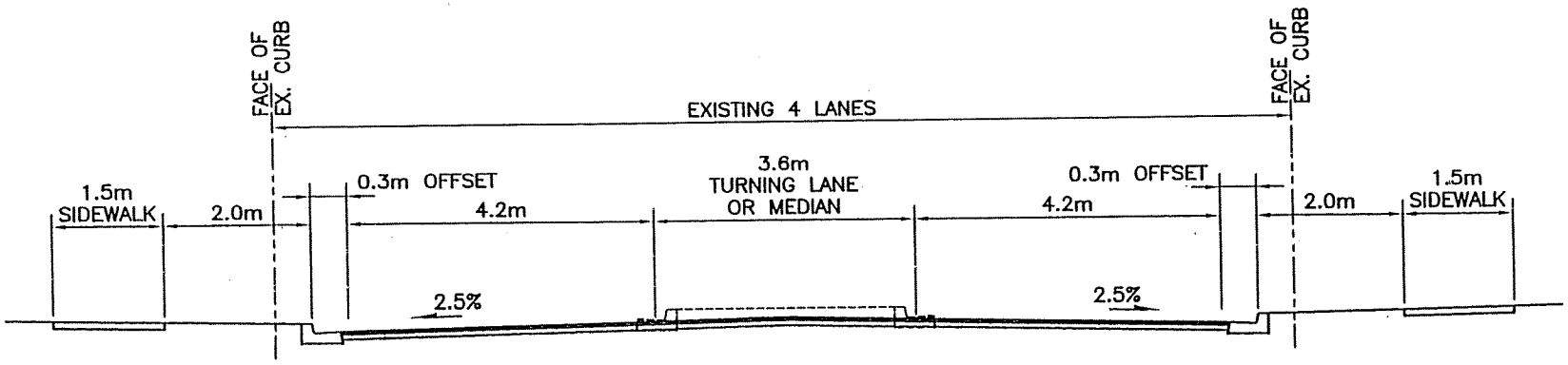

CROSS SECTION

NTS

NOTES:

1. CURB LANES SHOULD ACCOMMODATE CYCLISTS.
2. NO ON-STREET PARKING.
3. POSSIBILITY FOR WIDER SIDEWALK.
4. MAINTAINS EXISTING SIDEWALK LOCATION AND UTILITY POLES. NO LAND AQUISITION. NO RETAINING WALL CHANGES.
5. IMPROVES PEDESTRIAN ASTHETICS.

O'HALLORAN CAMPBELL consultants limited	
HRM	
SACKVILLE STREETSCAPE	
THREE LANE CROSS SECTION	
SK-1230-3	NOV. 2002

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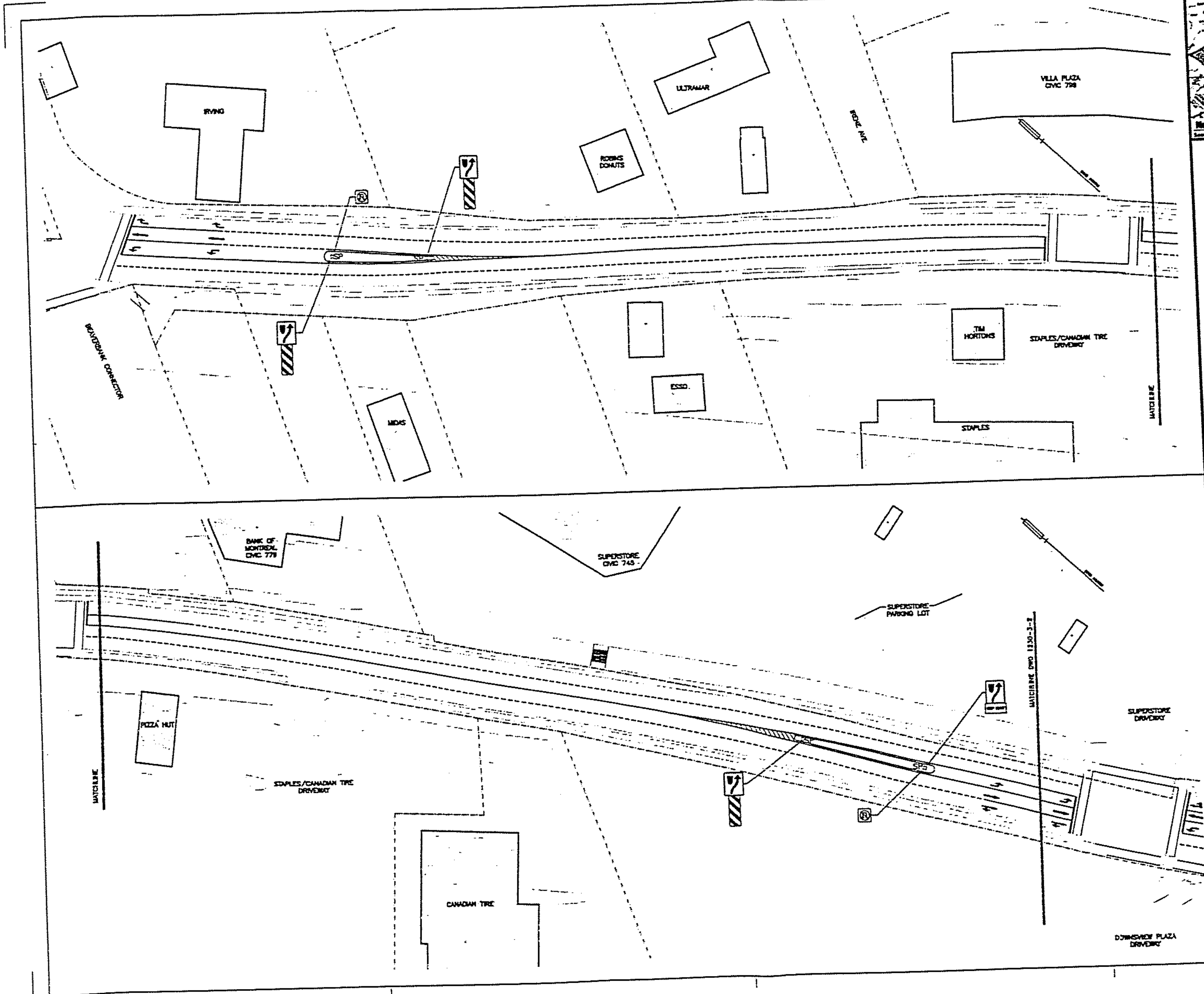

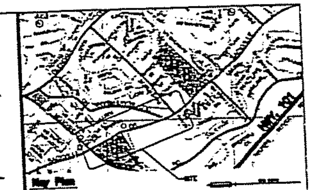

PLAN LEGEND

EXISTING		PROPOSED
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	FOUND SURVEY MARKER	
	FOUND IRON BAR	
	FOUND IRON PIPE	
	WATERVALVE	
	FIRE HYDRANT	
	UTILITY POLE AND GUY WIRE	
	SIGN ON POST	
	FENCE	
	RETAINING WALL	
	CONCRETE CURB	
	STREET LINE	
	CONSTRUCTION BASELINE	
	COMBINED MANHOLE & PIPE	
	STORM MANHOLE & PIPE	
	SANITARY MANHOLE & PIPE	
	CATCHBASIN	
	WATERMAIN	
	TREE	
	LIMITS OF CONSTRUCTION	
SP	NEW SIGN POST	

NOTES

1. BACKGROUND INFORMATION FROM HRM GIS DATA.
2. EXISTING CURBS AND PAVEMENT MARKINGS TO REMAIN, U.N.O.
3. ALL WORK TO BE DONE IN ACCORDANCE WITH HRM SPECIFICATIONS.

PROPERTY LINE (FROM GIS)
NEW SIDEWALK
DRIVEWAY ALTERATIONS
NEW CURB

No.	Date	Revision Description	Appr'd
1	OCT.3/03	ISSUED FOR PUBLIC MEETING	
0	OCT.21/03	ORIGINAL ISSUE	

HALIFAX REGIONAL MUNICIPALITY

O'HALLORAN CAMPBELL consultants limited

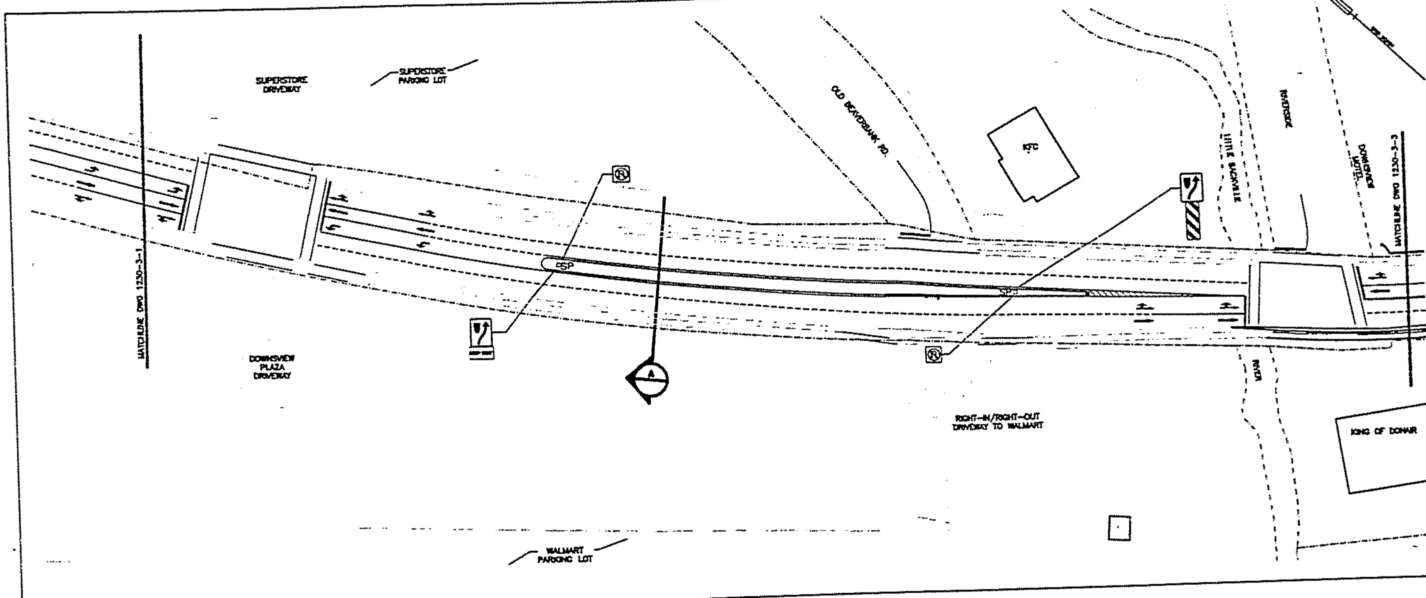
SACKVILLE DRIVE STREETSCAPE

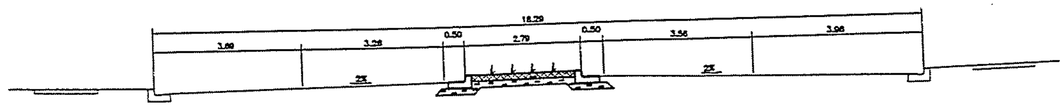
BEAVERBANK – DOWNSVIEW FUNCTIONAL PLAN

Date: FEBRUARY 2003	Drawn: ADB	Project No.
Scale: Horz. 1:250	Engineer:	Plan No. 1230-3-1
Reference: 1230	Approved:	HRM No.
Surveyed:	Sheet: 1 OF 3	

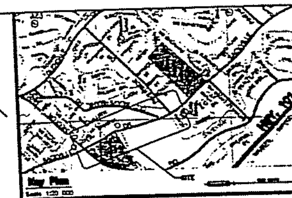
File No.

Sheet 01





SECTION (A) TYPICAL SECTION
SCALE 1:50



PLAN LEGEND

EXISTING / PROPOSED

- N.S. COORDINATE MONUMENT
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- FOUND IRON BAR
- FOUND IRON PIPE
- WALKWAY
- FIRE HYDRANT
- UTILITY POLE AND GUY WIRE
- SIGN OR POST
- FENCE
- RETAINING WALL
- CONCRETE CURB
- STREET LINE
- CONSTRUCTION BASELINE
- COMBINED MANHOLE & PIPE
- STORM MANHOLE & PIPE
- SANITARY MANHOLE & PIPE
- CATCHBASIN
- WATERMAIN
- TREE
- LIMITS OF CONSTRUCTION
- NEW SIGN POST

NOTES

1. BACKGROUND INFORMATION FROM HRM GIS DATA.
2. EXISTING CURBS AND PAVEMENT MARKINGS TO REMAIN, U.N.O.
3. ALL WORK TO BE DONE IN ACCORDANCE WITH HRM SPECIFICATIONS.

- PROPERTY LINE (FROM GIS)
- NEW SIDEWALK
- DRIVEWAY ALTERATIONS
- NEW CURB

No.	Date	Revision Description	Appr'd
1	OCT.3/03	ISSUED FOR PUBLIC MEETING	
0	OCT.23/03	ORIGINAL ISSUE	

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O'HALLORAN CAMPBELL consultants limited

SACKVILLE DRIVE STREETSCAPE

DOWNSVIEW–RIVERSIDE DR. FUNCTIONAL PLAN

Date: FEBRUARY 2003	Drawn:	Project No.
Scale: Horz. 1:500	Engineer:	Plan No. 1230–3–2
Reference: 1230	Approved:	HRM No.
Surveyed:	Sheet: 2 OF 5	

File No.
Sheet
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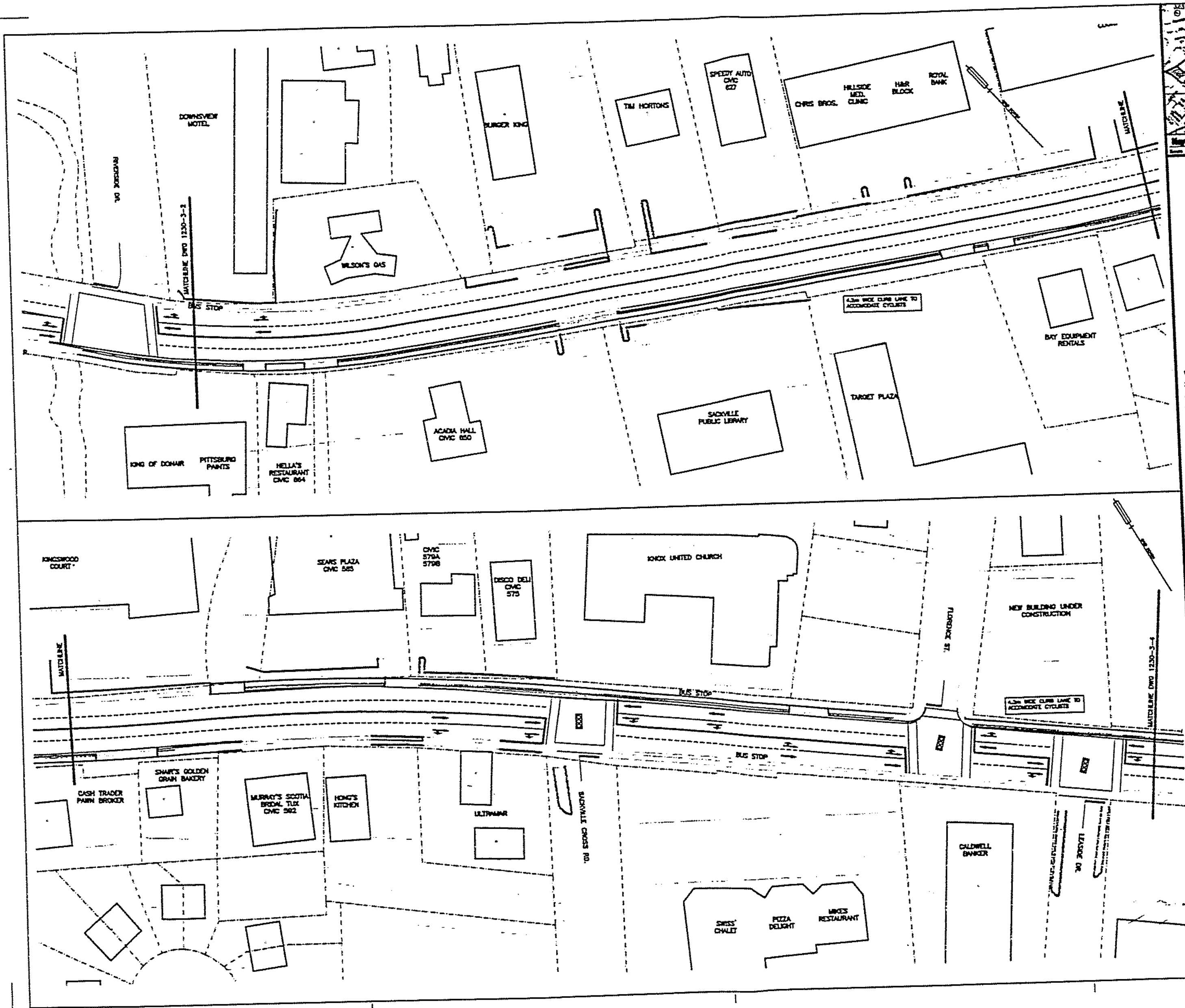

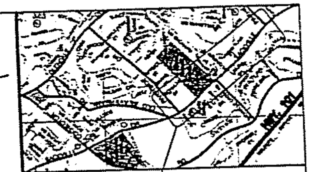

Key Plan

PLAN LEGEND

EXISTING | PROPOSED

N.S. COORDINATE MONUMENT
FOUND SURVEY MARKER
FOUND IRON BAR
FOUND IRON PIPE
WATERVALVE
FIRE HYDRANT
UTILITY POLE AND GUY WIRE
SIGN ON POST
FENCE
RETAINING WALL
CONCRETE CURB
STREET LINE
CONSTRUCTION BASELINE
COMBINED MANHOLE & PIPE
STORM MANHOLE & PIPE
SANITARY MANHOLE & PIPE
CATCHBASIN
WATERMAIN
TREE
LIMITS OF CONSTRUCTION
NEW SIGN POST

NOTES

1. BACKGROUND INFORMATION FROM HRM GIS DATA.
2. EXISTING CURBS AND PAVEMENT MARKINGS TO REMAIN, U.N.O.
3. ALL WORK TO BE DONE IN ACCORDANCE WITH HRM SPECIFICATIONS.
4. SUGGESTED DRIVEWAY CONSOLIDATIONS ARE BASED ON EXISTING BUILDING AND PROPERTY CHECKS. AS DEVELOPMENT TAKES PLACE IT MAY BE PRACTICAL TO IMPLEMENT FURTHER CONSOLIDATIONS. THE PREFERRED SITUATION WOULD ALLOW 14m (TWO PARKING STALLS AND TWO WAY AISLE) WITH ACCESS POINTS AT ABOUT 60m SPACINGS.

PROPERTY LINE (FROM GIS)
NEW SIDEWALK
DRIVEWAY ALTERATIONS
NEW CURB

THE PROPOSED DRIVEWAY CONSOLIDATIONS ARE INTENDED AS A GUIDE FOR LONGER TERM IMPLEMENTATION AS REDEVELOPMENT OCCURS ALONG SACKVILLE DRIVE.

No.	Date	Revision Description	Appr'd
7	OCT.3/03	ISSUED FOR PUBLIC MEETING	
6	OCT.31/03	ORIGINAL ISSUE	

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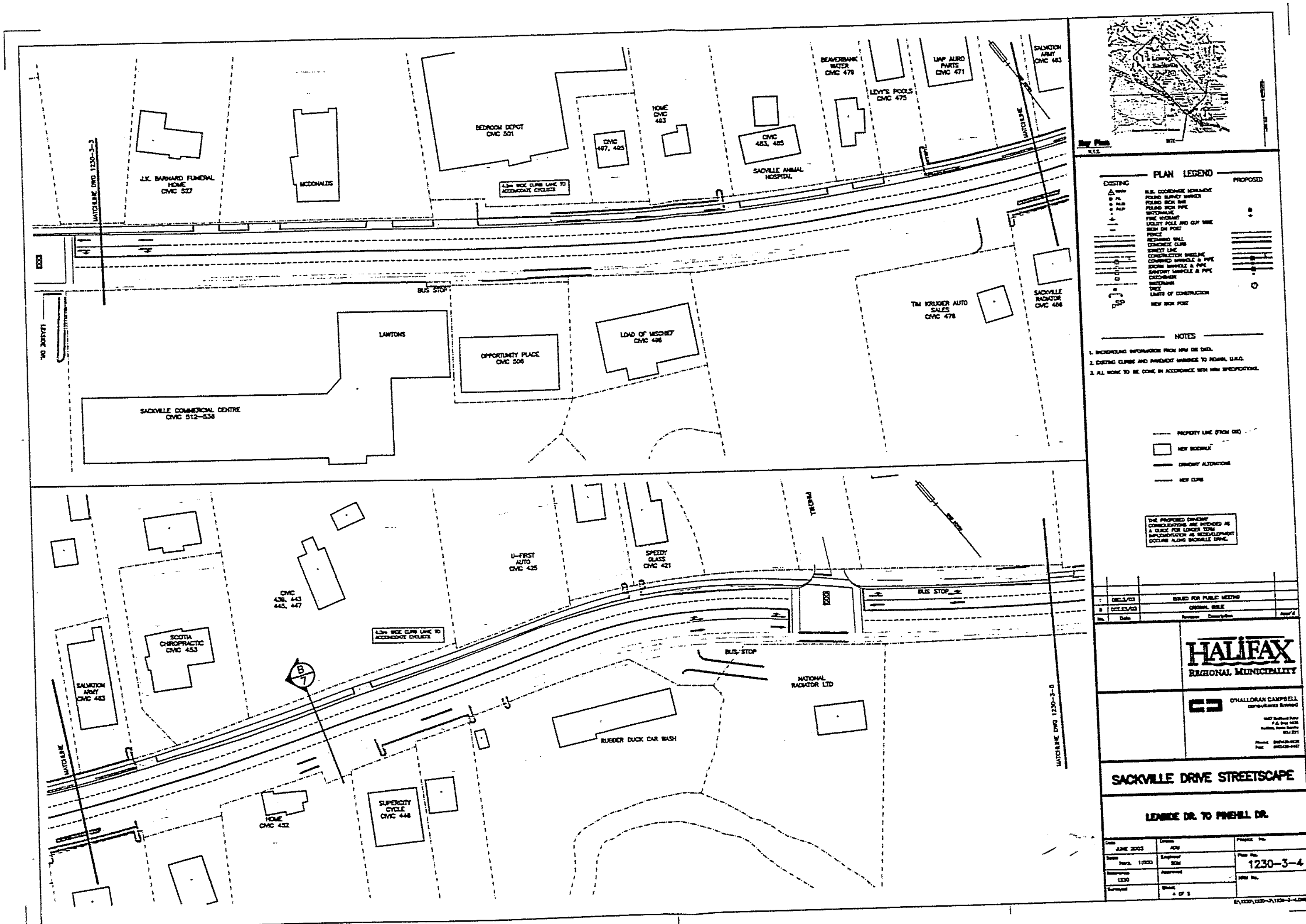
SACKVILLE DRIVE STREETSCAPE

RIVERSIDE DR. TO LEASIDE DR.

Date: JUNE 2003	Drawn: AGM	Project No.
Scale: Horiz. 1:500	Engineer: ECM	Plan No.: 1230-3-3
Reference: 1230	Approved:	HRM No.
Surveyed:	Sheet: 3 OF 8	

File No.

Sheet 01



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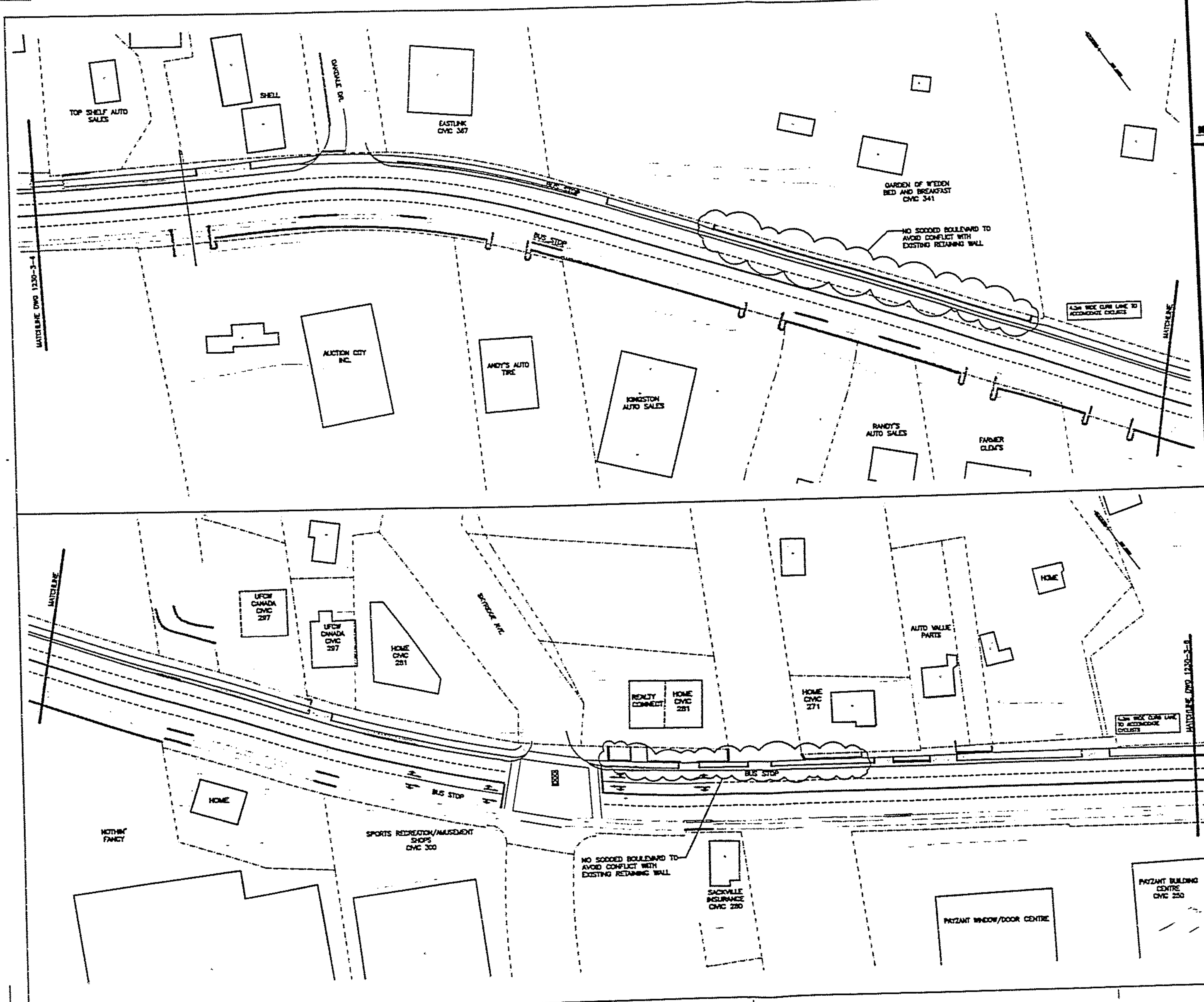

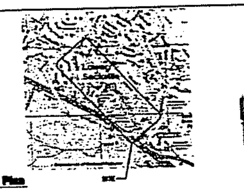

Key Plan

N.T.S.

PLAN LEGEND

EXISTING / PROPOSED

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FOUND SURVEY MARKER
FOUND IRON BAR
FOUND IRON PIPE
WATERVALVE
FIRE HYDRANT
UTILITY POLE AND GUY WIRE
SIGN OR POST
FENCE
RETAINING WALL
CONCRETE CURB
STREET LINE
CONSTRUCTION BASELINE
COMBINED MANHOLE & PIPE
STORM MANHOLE & PIPE
SANITARY MANHOLE & PIPE
CATCHBASIN
WATERMAIN
TREE
LIMITS OF CONSTRUCTION
NEW SIGN POST

NOTES

1. BACKGROUND INFORMATION FROM HRM GIS DATA.
2. EXISTING CURBS AND PAVEMENT MARKINGS TO REMAIN, U.N.O.
3. ALL WORK TO BE DONE IN ACCORDANCE WITH HRM SPECIFICATIONS.

PROPERTY LINE (FROM GIS)
NEW SIDEWALK
DRIVEWAY ALTERATIONS
NEW CURB

THE PROPOSED DRIVEWAY CONSOLIDATIONS ARE INTENDED AS A GUIDE FOR LONGER TERM IMPLEMENTATION AS REDEVELOPMENT OCCURS ALONG SACKVILLE DRIVE.

No.	Date	Revision Description	
1	DEC.3/03	ISSUED FOR PUBLIC MEETING	
0	OCT.23/03	ORIGINAL ISSUE	

HALIFAX REGIONAL MUNICIPALITY

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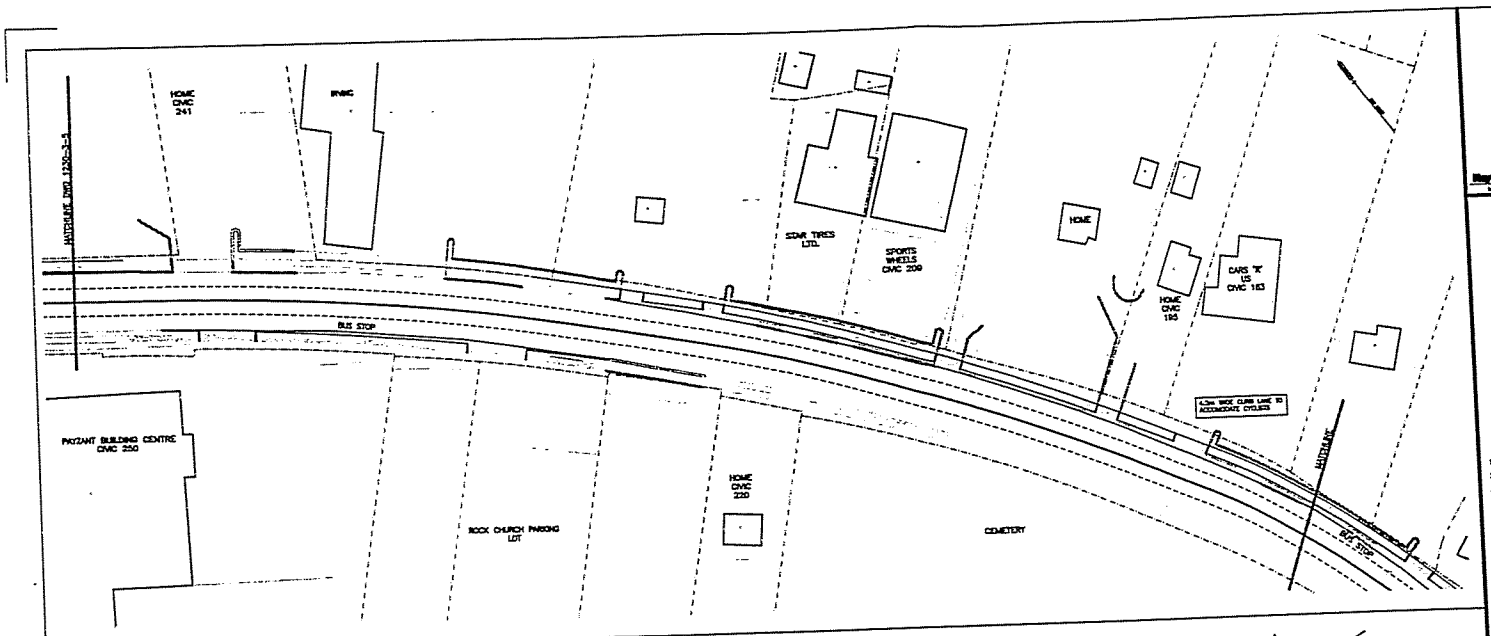
SACKVILLE DRIVE STREETSCAPE

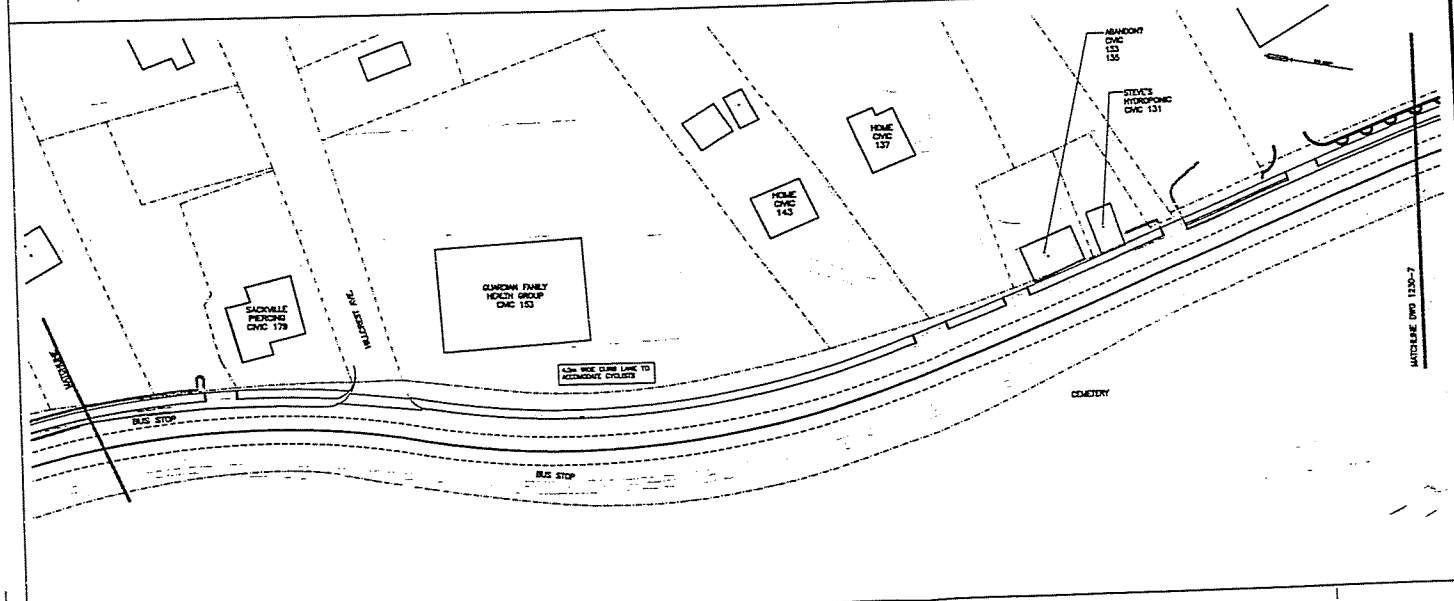
PINEHILL DR. TO SKYRIDGE AVE.

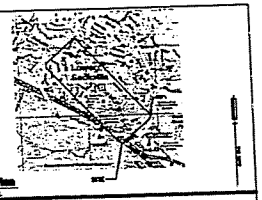
Date: JUNE 2003	Drawn: AGM	Project No.
Scale: Horz. 1:200	Engineer: BCM	Plan No. 1230-3-5
Reference: 1230	Approved:	HRM No.
Surveyed:	Sheet: 5 OF 5	

File No.

Sheet 01







PLAN LEGEND

EXISTING / PROPOSED

NOTES

1. BACKGROUND INFORMATION FROM HRM GIS DATA.
2. EXISTING CURBS AND PAVEMENT SURFACES TO REMAIN, U.N.O.
3. ALL WORK TO BE DONE IN ACCORDANCE WITH HRM SPECIFICATIONS.

PROPERTY LINE (FROM GIS)
NEW SIDEWALK
DRIVEWAY ALTERATIONS
NEW CURB

THE PROPOSED DRIVEWAY CONSOLIDATIONS ARE INTENDED AS A GUIDE FOR LONGER TERM IMPLEMENTATION AS REDEVELOPMENT OCCURS ALONG SACKVILLE DRIVE.

No.	Date	Revisions - Description	Appd'd
1	DEC.1/03	ISSUED FOR PUBLIC MEETING	
0	OCT.03/03	ORIGINAL ISSUE	

HALIFAX REGIONAL MUNICIPALITY

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SACKVILLE DRIVE STREETSCAPE

BEDFORD AVE TO HILLCREST AVE.

Date: JUNE 2003	Drawn: ABN	Project No.
Scale: Horiz. 1:500	Engineer: BCM	Plan No. 1230-3-6
Reference: 1230	Approved:	HRM No.
Surveyed:	Sheet: 5 OF 5	

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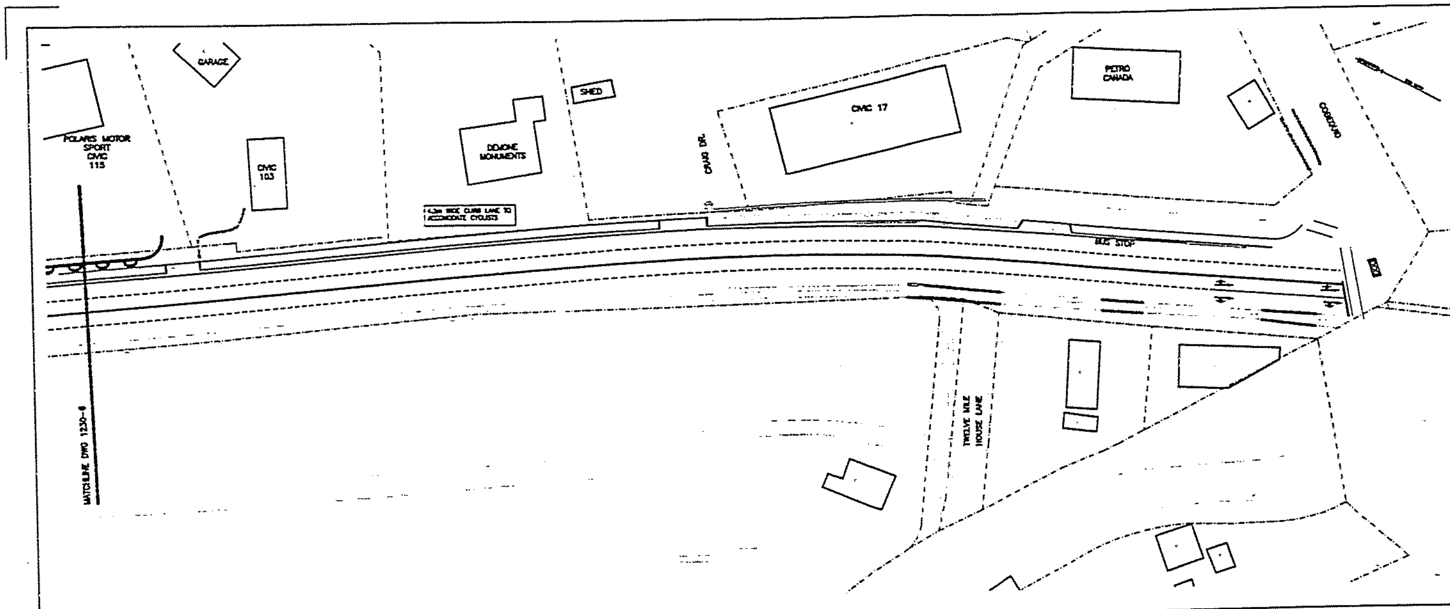
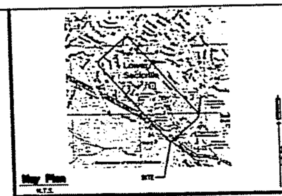
File No.

Sheet 10





PLAN LEGEND

EXISTING / PROPOSED

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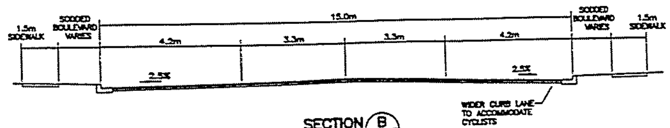
- FOUND SURVEY MARKER
- FOUND IRON BAR
- FOUND IRON PIPE
- WATERVALVE
- FIRE HYDRANT
- UTILITY POLE AND GUY WIRE
- SIGN ON POST
- FENCE
- RETAINING WALL
- CONCRETE CURB
- STREET LINE
- CONSTRUCTION BASELINE
- COMBINED MANHOLE & PIPE
- STORM MANHOLE & PIPE
- SANITARY MANHOLE & PIPE
- CATCHBASIN
- WATERMAIN
- TREE
- LIMITS OF CONSTRUCTION
- NEW SIGN POST

NOTES

1. BACKGROUND INFORMATION FROM HRM GIS DATA.
2. EXISTING CURBS AND PAVEMENT MARKINGS TO REMAIN, U.N.O.
3. ALL WORK TO BE DONE IN ACCORDANCE WITH HRM SPECIFICATIONS.

- PROPERTY LINE (FROM GIS)
- NEW SIDEWALK
- DRIVEWAY ALTERATIONS
- NEW CURB

THE PROPOSED DRIVEWAY CONSOLIDATIONS ARE INTENDED AS A GUIDE FOR LONGER TERM IMPLEMENTATION AS REDEVELOPMENT OCCURS ALONG SACKVILLE DRIVE.



SECTION (B/4)
SCALE 1:75

1. CURB LANES WIDER TO ACCOMMODATE CYCLISTS.
2. ON-STREET PARKING PROHIBITED.
3. SODDED BOULEVARD WIDTH REDUCED FROM 0.8m TO KEEP SIDEWALK WITHIN RIGHT-OF WAY.
4. MAINTAINS EXISTING SIDEWALK LOCATION ON ONE SIDE OF THE ROAD. NO LAND ACQUISITION. NO RETAINING WALL CHANGES REQUIRED WITH ADJUSMENTS TO THE CROSS SECTION.
5. FITS WITHIN THE EXISTING RIGHT-OF-WAY.

No.	Date	Revision Description	App'd
1	DEC.3/03	ISSUED FOR PUBLIC MEETING	
0	OCT.23/03	ORIGINAL ISSUE	

HALIFAX REGIONAL MUNICIPALITY

O'HALLORAN CAMPBELL consultants limited

SACKVILLE DRIVE STREETSCAPE

HILLCREST AVE. TO COBEQUID RD.

Date: JUNE 2003	Drawn: JCM	Project No.
Scale: Horiz. 1:500	Engineer: SCM	Plan No. 1230-3-7
Reference: 1230	Approved	HRM No.
Surveyed	Sheet 5 OF 5	

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Sheet
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Attachment C
Sackville Drive SPS - Action Table

Action Table		
Action	**Department/Agency**	**Timing/Priority**
(a) Business Improvement District		
Identify and Establish Business District	HRM Council Sackville Drive Businesses	**Priority:** High **Estimated Start Date:** 2002/2003
Establish Business Improvement District Commission	HRM Council Community Associations RDA	**Priority:** High **Estimated Start Date:** 2003
Establish a contract (management agreement) between HRM and Business District Commission	HRM Council BIDC	**Priority:** High **Estimated Start Date:** 2003/4
Establish Area Rate to be applied to Business District	HRM Council BIDC	**Priority:** High **Estimated Start Date:** 2003/4
Establish a regular funding program for Sackville Drive through the capital budgeting program.	HRM Council BIDC	**Priority:** High **Estimated Start Date:** 2003/4
(b) Community Parkland and Open Space		
1. Acadia Square Park Development Project		
Develop a new central park near the library on Sackville Drive to provide a public meeting and gathering spot. (See Diagram 1 and 10)	Parkland & Rec. Services Library Services Businesses Community Groups	**Priority:** High **Estimated Start Date:** 2002/2003
2. Urban Wildlife Park Development Project		
Negotiate a Management Agreement with Atlantic Shopping Centres Ltd. regarding the stormwater management pond in consideration of developing an urban wilderness park. Alternatively, acquire these lands pursuant to the provision of parkland contribution through subdivision approval process. (See Diagram 2)	Parkland & Rec. Services Real Estate Businesses Community Groups SRA	**Priority:** High **Estimated Start Date:** 2002/2003

Naturalize and upgrade the existing stormwater ponds to the quality of a new wetland.(See Diagram 2)	SRA ASC Ltd. Businesses Community Groups	**Priority:** High **Estimated Start Date:** 2003/4
Design and install a butterfly garden next to the stormwater wetland. (See Diagram 2)	Businesses Community Groups Parkland & Recreation Services Private Investors	**Priority:** Medium **Estimated Start Date:** Unknown
Design and install a wildflower meadow next to the wildlife park. (See Diagram 2)	Businesses Community Groups Recreation Services Private Investor	**Priority:** Medium/Low **Estimated Start Date:** Unknown
3. Parkland Identification Study		
Undertake a need assessment study to identify new parks and pedestrian linkages on Sackville Drive. The Study should specifically explore the feasibility of the land near Pinehill Drive. (See Diagram 3 and Location Map)	Parkland and Recreation Services	**Priority:** High **Estimated Start Date:** Unknown
Contingent upon the outcome of the above study, acquire the large open space at the foot of Pinehill Drive as a nature park to link Sackville Drive with the Little Sackville River. (See Diagram 3 and 4 and Location Map)	Parkland and Recreation Services Real Estate	**Priority:** High **Estimated Start Date:** Unknown
Design walking trails with look-off's, interpretive nodes, and a bridge across the river that would connect pedestrians with the Old Sackville Road. (See Diagram 3 and 4 and Location Map)	Parkland & Rec. Services Real Estate	**Priority:** High **Estimated Start Date:** Unknown
Develop plans for a formal arboretum, complete with parking and an arboretum centre.	Parkland & Rec. Services Real Estate	**Priority:** High **Estimated Start Date:** Unknown
Design and install a river trail system that firmly connects with the path along the river upstream of the urban wildlife park. (See Diagram 2 and Location Map)	Businesses Community Groups Parkland & Rec. Services SRA Private Investor	**Priority:** High/Medium **Estimated Start Date:** 2004/2005

(c) Little Sackville River		
1. Boardwalk Development Project		
Design and install a Little Sackville River Boardwalk (See Diagram 2 and Location Map)	Businesses Community Groups Parkland & Rec. Services SRA Other Governments	**Priority:** Medium **Estimated Start Date:** Unknown
Develop Observation Platforms overlooking the Little Sackville River and the river valley floodplain. The platforms could provide a great source of information and education about the wildlife. (See Diagram 2)	Businesses Community Groups Parkland & Rec. Services SRA Private Investor Other Governments	**Priority:** Medium **Estimated Start Date:** Unknown
2. River Centre Development Project		
Develop a River Centre as a hub of watershed planning, river restoration techniques and hydrological sciences for all of Nova Scotia. The centre would house a library of hydrological science information while part of the centre could be a river interpretive centre. A fluvarium (a glass window next to the river) would provide views into an active part of the river on the inner thalweg bend.	SRA Businesses Community Groups HRM Other Government	**Priority:** Low/Medium **Estimated Start Date:** Unknown
3. River Bridge Restoration Project		
Construct a new bridge over the Little Sackville River and replace the two large 5-6' diameter culverts that currently connect the river under Sackville Drive. (See Diagram 5).	HRM Other Governments	**Priority:** Low/Medium **Estimated Start Date:** Unknown
4. Master Stormwater Management Planning		
Prepare a Master Stormwater Plan for the Little Sackville River in recognition of its significance and the importance of preserving and improving its environmental integrity.	HRM Council Planning and Development SRA HC/HWAB	**Priority:** High **Estimated Start Date:** Unknown

(d) Streetscape Improvements		
1. Signage Project		
Develop HRM sign by-law that will include special provision for Sackville Drive.	HRM Council Planning and Development	**Priority:** High **Estimated Start Date:** 2002
Remove or relocate Billboard currently situated by Little Sackville River at the corner of Sackville Drive and the entrance into WalMart. (See Location Map)	HRM Council BIDC	**Priority:** Medium **Estimated Start Date:** Unknown
Remove and relocate the current "Welcome to Sackville Drive" sign on the Fultz House property to the northern intersection of the Old Sackville Road and Sackville Drive. (See Diagram 6 and Location Map)	BIDC	**Priority:** High **Estimated Start Date:** 2003
Install furniture clusters including concrete walls, interpretive signage and benches. (See Diagram 7 and Location Map)	Recreation Services BIDC	**Priority:** Medium **Estimated Start Date:** Unknown
Design and install gateway signage. (See Diagram 6 and Location Map)	HRM Council BIDC	**Priority:** High/Medium **Estimated Start Date:** Unknown
Design and install new street signs. (See Diagram 8)	Civic Addressing BIDC	**Priority:** High/Medium **Estimated Start Date:** Unknown
Design and install new orientation signage. (See Diagram 9)	BIDC Business Owner	**Priority:** Medium/Low **Estimated Start Date:** Unknown
Design and Install Community Kiosks. (See Diagram 10 and Location Map)	BIDC Business Owner	**Priority:** Medium/Low **Estimated Start Date:** Unknown
Incorporate seasonal or events related banners into the new street lighting to add colour and movement on the street.	BIDC Business Owner	**Priority:** Medium **Estimated Start Date:** Unknow
2. Landscaping and Separation Buffers Project		
Develop a landscaping program focussed on the installation of new deciduous street trees in the area's most lacking greenery. (See Location Map)	BIDC HRM Council Recreation Services	**Priority:** High/Medium **Estimated Start Date:** Unknown

Work closely with the graveyard owner operator to develop a program to replace the existing chain link fence running along the front of the cemetery. This fence could be replaced with a more permanent wall and fence punctuated by stretches of a dense hedge and other plantings. (See Diagram 11 and Location Map)	BIDC Business Owner	**Priority:** Low **Estimated Start Date:** Unknown
Design and install the bollards to separate vehicular and pedestrian traffic along Sackville Drive. (See Diagram 12 and Location Map)	BIDC Business Owner	**Priority:** Low **Estimated Start Date:** Unknown
3. Lighting Program		
Develop a street lighting program to ensure all new lighting incorporates the Sackville Drive identity logo. Pedestrian level lights will be provided on poles fourteen (14) feet high to create a special sense of place. (See Diagrams 13 and 14 and Location Map)	BIDC HRM Council NSP	**Priority:** Medium/High **Estimated Start Date:** Unknown
4. Seating Project		
Install steel benches for their durability and resistance to vandalism. (See Location Map)	BIDC Business Owner HRM	**Priority:** Medium/Low **Estimated Start Date:** Unknown
Install furniture clusters along the street to provide mini-plazas for people to collect at strategic locations, such as crosswalks. Grouping the furnishings into small clusters creates a stronger impression than individual items would provide when stretched out along the street. Individual furnishings would compete for attention with the busy background of buildings, signage and parking lots. A half-circle concrete plinth is the primary structural element forming an intimate space. (See Diagram 7 and Location Map)	BIDC Business Owner HRM	**Priority:** Medium/Low **Estimated Start Date:** Unknown

(e) Transportation Improvements		
1. Traffic/Functional Design Study		
Undertake a detailed Traffic/Functional Design Study to evaluate different options for improving and facilitating traffic along Sackville Drive. The focus of the Study should be the installation of a landscaped median, relocating signals, and consolidating driveways. (See Diagrams 13 and 14 and Location Map)	Traffic Services/Public Works	**Priority:** High **Estimated Start Date:** 2002/3
Pursuant to the Study findings, retain a consultant to develop detailed drawings and cost estimates for future street improvements. (See Diagrams 13 and 14)	Traffic Services/Public Works	**Priority:** High **Estimated Start Date:** 2002/3
2. Transit Shelters Program		
Develop a program to replace existing bus shelters with new bus shelters that exhibit Sackville Logo design.	Transit Services BIDC	**Priority:** Medium **Estimated Start Date:** Unknown
(f) Acadia Hall and School Heritage Designation Program		
Process application to find out whether Acadia Hall qualifies for Municipal heritage registration.	Acadia Recreation Club Planning Services HAC HRM Council	**Priority**: High **Estimated Start Date:** 2003