



Corporate Report

NO: L009

COUNCIL DATE: November 19, 2007

REGULAR COUNCIL – LAND USE

TO: Mayor & Council DATE: November 14, 2007
FROM: General Manager, Planning & Development FILE: 7905-0120-00
General Manager, Engineering
SUBJECT: Development Application No. 7905-0120-00 (Quadri Properties) – Douglas Area

RECOMMENDATION

It is recommend that Council:

1. Receive this report as information;
2. Endorse the additional requirements for the subject Development Application (No. 7905-0120-00) as documented in this report, including construction of off-site road and pedestrian works be completed prior to final approval of Rezoning By-law No. 16443;
3. Grant Third Reading to Rezoning By-law No. 16443; and
4. Forward a copy of this report to the Border Services Agency outlining the residents' concerns, regarding border security in the Douglas area.

INTENT

The intent of this report is to advise Council on the results of the staff review process on issues related to traffic, drainage, transportation, access, border security and tree preservation concerns raised at the September 10, 2007, Public Hearing in relation to Development Application No. 7905-0120-00 (Quadri Properties) in the Douglas area (proposed layout attached as Appendix I). The report also outlines additional requirements to address the concerns raised and provides additional information on other existing development applications in the Douglas Neighbourhood Concept Plan ("NCP").

BACKGROUND

Development Application No. 7905-0120-00, located within the Douglas NCP area, comprises a total land area of approximately 2.8 hectares (6.9 acres). The applicant, Quadri Properties Ltd., proposes a rezoning and NCP amendment to redevelop the site into approximately 48 single family small lots, including 18 RF-12 lots, three RF-12C lots with coach houses, and 27 RF-9 lots.

The Public Hearing for this application (Rezoning By-law No. 16443) was held on September 10, 2007. The Council Meeting was subsequently extended to September 17, 2007. On September 17, 2007, Council adopted the following resolution::

"(RES. R07-2518) That Surrey Zoning By-law, 1993, No. 12000, Amendment By-law No. 16643 be tabled back to staff to review traffic, drainage, access and security concerns raised at the Public Hearing".

This report responds to Council's request.

Douglas Neighbourhood Concept Plan

The Douglas NCP was completed and adopted in 1999. The Douglas plan area is comprised of approximately 60 hectares (150 acres) of land and is generally bounded by Highway 99 to the west, the Canada/USA border (Washington State) to the south, 4 Avenue to the north, and 175 Street alignment to the east.

The Douglas NCP was approved by Council in July 1999, prior to the City introducing small lot zones into the Zoning By-law in 2002. The Douglas NCP had some opportunity for small lot development, but the majority of the single detached residential areas were designated "Urban Single Family at 6 upa (units per acre)". In addition, the Douglas NCP specifically prohibited homes with in-ground basements as a means of keeping services shallower in some of the area that has challenging topographic and soil conditions.

There has been no significant development of the Douglas neighbourhood since the NCP was approved in 1999. The area requires land assembly and is expensive to service due to its relative isolation from existing servicing trunk infrastructure. Furthermore, the market demand for homes without in-ground basements is very weak. This precipitated the submission of applications proposing major NCP Amendments that allow higher densities, smaller lots and in-ground basements.

2007 Major NCP Amendment

In February 2007, Council approved amendments to the Douglas NCP that increased the opportunities for small lot residential development by creating a Single Family Residential Flex (6 to 14.5 upa) designation and adopting evaluation criteria to review applications for this designation. Detailed servicing and transportation studies, as well as funding mechanisms for the new infrastructure, were completed and approved in support of the amendment (Corporate Report Nos. L001 and L002).

Council authorized staff to proceed with processing two of the largest development applications within Douglas (Development Applications No. 7904-0411-00 - Cressey and 7906-0098-00 - Equitas) and these projects subsequently proceeded to Council and were approved (final adoption) for a combined total of 387 single family residential lots. Development Application No. 7906-0320-00 (Cressey Area 2) also proceeded to Council and received Third Reading.

In-Stream Development Applications

Ten development applications were submitted for Douglas between December 2004 and June 2006, most of which include amendments to the Douglas NCP to increase density in designated single family areas by introducing smaller single family lots using the RF-9 and RF-12 small lot standards. The location of these applications and their status are shown in Appendix II. One additional application was received in 2007 and the status has been included.

As noted above, the largest development application was from Cressey Development Corporation (Development Application No. 7904-0411-00). A second developer, Equitas (Development Application No. 7906-0098-00), worked with Cressey to advance the Douglas NCP amendments through the review and consultation process.

All the applications, with the exception of the one submitted in 2007, were displayed at a public information meeting in November 2006, where the entire community was invited to attend. The results of the public information meeting were outlined in Corporate Report No. L001 (attached as Appendix III).

Quadri Properties Development Application

On July 23, 2007, Development Application No. 7905-0120-00 (Quadri Properties), proceeded to Council. Development Application No. 7905-0120-00 is the first development proposal in Douglas since the Cressey and Equitas applications were approved by Council. It is also the first application to proceed for lands on the west side of 172 Street. The west side of 172 Street has a slightly different character than the east side of 172 Street, where the Cressey and Equitas developments are located. The area west of 172 Street possesses more complex development constraints, including:

- Smaller existing lots and fragmented ownership;
- Trees and stream courses;
- Peace Portal Golf Course;
- The closer proximity of Highway No. 99 and the Douglas border crossing;
- The NAV CANADA beacon and potential height limitations; and
- Planned green space.

The subject application was considered at the Public Hearing on September 10, 2007. At that meeting, several Douglas area residents expressed concern about the application and related development issues in Douglas. As a result, Council did not grant Third Reading to the Rezoning By-law. The By-law was tabled and the application referred back to staff to address the following areas of concern:

- Traffic;
- Access;
- Security;
- Drainage; and
- Tree retention.

DISCUSSION

Traffic and Access Issues

From a transportation perspective the Douglas neighbourhood is very isolated with no road connectivity to the west and south, and very little road connectivity to the east. Access and egress for Douglas occurs entirely to the north via Highway No. 15, Highway No. 99 and 172 Street to 8 Avenue. Some of these key access routes have been improved significantly of late as the Province has recently upgraded 8 Avenue, including a new traffic signal at 172 Street, as well as Highway No. 15, that included a new signal at 2 Avenue. The local road network within Douglas will have relatively low traffic volumes consisting of almost exclusively local traffic, even with the proposed density increases. Appendix IV illustrates the proposed Douglas road network at build-out.

The Douglas neighbourhood is not conducive to transit service because it is remote from the remainder of community and has a relatively low build out population. Consequently, no transit service is proposed for this area in the foreseeable future. Douglas is, however, well suited to pedestrian and bicycle circulation and extensive sidewalks, pathways, and bike routes are proposed throughout the area and to connect to lands beyond.

Transportation issues raised by the area residents are briefly discussed below.

It is important to recognize that the 1999 Douglas NCP showed the access to Highway No. 99 from Peace Park Drive, as open to facilitate the ease of vehicle movements out of Douglas. This access is currently closed and has been closed for approximately two years while the Border facilities are being improved. This has substantially decreased the existing amount of traffic on Peace Park Drive. Access to Highway No. 99 from Peace Park Drive will be re-opened once the Border Improvements have been completed in advance of the 2010 Olympic Games.

The road upgrades for this application are graphically represented on the Douglas NCP, shown in Appendix V.

- **Ability for the Narrow 0 Avenue to Accommodate New Traffic**

0 Avenue is a narrow pavement width, approximately 5 metres (16 feet), with a centreline stripe. The primary traffic flow on 0 Avenue will be westbound destined for northbound on Highway No. 99 (this movement is temporarily closed due to Border construction work). There is no access from southbound Highway No. 99 to Peace Park Drive, due to the location of the Border Crossing. Due to physical constraints and the U.S. border, 0 Avenue only has a 10 metre (30 foot) wide road allowance, and is only planned for ultimate widening to 6.6 metres (22 feet) pavement with concrete curbs, plus a 1.5 metre (5 foot) concrete sidewalk along the north side.

Due to the narrow width and frequent driveways on 0 Avenue, it is desirable to minimize the traffic volumes over the long term. As a result, the Douglas NCP calls for closure of 0 Avenue west at 172 Street, to force drivers to utilize the new 0A Avenue, which can be built to accommodate additional traffic (rather than 0 Avenue) for access to Highway No. 99. This measure provides traffic calming through the utilization of short sections of roadways and encourages a greater use of the more linear and direct route of 172 Street to 8 Avenue. All of the roadways in this area are currently narrow and, as such, it is also desirable to disperse the traffic across a number of routes (e.g., from the proposed development site to 171 Street and 172 Street via 0 Avenue).

The closure of 0 Avenue at 172 Street west will ultimately take place when the areas west of 172 Street redevelop and 1 Avenue is built between 171 Street and 172 Street. During the interim time period, traffic and safety along 0 Avenue will be monitored to determine if the closure can and should take place earlier.

- **The Potential for Traffic/Pedestrian Conflict Along Peace Park Drive and Volumes along Peace Park Drive**

Along with local residents, there have long been visitors, particularly for special events, that visit this area and walk along 0 Avenue and Peace Park Drive to reach Peace Arch Park. The narrow road width and character of the area generally results in slower moving traffic when pedestrians are present. It seems to work reasonably well now and is expected to continue this way, based on the projected volumes for 0 Avenue and Peace Park Drive. Peace Park Drive at 0A Avenue will have a stop sign for north-bound traffic, which will further slow potential traffic speeds.

As redevelopment occurs in lands adjacent to Peace Park Drive, it will be widened, with sidewalks added along both sides of the road north of 0A Avenue and the east side of the road south of 0A Avenue. The road widths will be consistent with the surrounding network (wider north of 0A Avenue and narrower to the south to discourage use of 0 Avenue).

The Engineering Department considers it acceptable to leave these roads in their current state until adjacent properties redevelop. When 0 Avenue is closed at 172 Street in the future, this should significantly reduce the volume of traffic on these roads, further reducing any concerns.

- **Shortcutting between Highway No. 15 and Highway No. 99**

Some shortcutting could occur via 172 Street and 4 Avenue related to traffic destined to the Pacific Border Crossing. Planned traffic calming measures on 2 Avenue should keep any shortcutting on the periphery of the Douglas neighbourhood. The Ministry of Transportation and Transport Canada have undertaken considerable road widening on 8 Avenue and Highway No. 15 and introduced new opportunities to reduce Border waits. These efforts should minimize potential shortcutting through this neighbourhood.

Any shortcutting between the two Border crossings would be discouraged as there is and will be no direct route entirely across Douglas between Highway No. 15 and Highway No. 99. 0 Avenue has already been closed at 175A Street for some time, and the proposed road network will require a number of turns when traveling east-west across this neighbourhood.

- **Public Safety**

The concern about public safety was expressed in relation to the proximity of the Border and the transportation network. While the appropriate personnel from other levels of government were involved through the development of the Douglas plans, Planning and Development recommends that a copy of this report be sent to the Border Services Agencies to advise them of the community concerns related to potential illegal activities at the Douglas Border.

Proposed Traffic Measures (Appendix V)

The following road works must be constructed to provide access for the proposed development site:

- 1 Avenue from 170 Street (the site) to 171 Street to provide the interim traffic movement from the development to 171 Street and north to proceed out 172 Street to 8 Avenue (should the off-site statutory right-of-way not be secured, then the developer will be required to upgrade 0 Avenue from 170 Street to 171 Street);
- 170 Street with sidewalk on both sides and street lighting; and
- 0A Avenue from 170 Street to Peace Park Drive.

Staff is recommending, as an additional condition of approval of the application, that the applicant be required to construct 0A Avenue, west of the development frontage to Peace Park Drive, a 6 metre wide pavement to divert traffic away from 0 Avenue. This would require an environmental assessment of the creek area directly east of Peace Park Drive within the existing road right-of-way. These measures provide portions of the ultimate area roadways to facilitate interim traffic movements and ensure that the ultimate connections are in place.

Drainage/Environmental Background

The amended Douglas NCP provides a comprehensive drainage servicing strategy developed to reflect state of the art stormwater management and environmental sustainability. Douglas area drainage will be managed through low impact, sustainable drainage features and peak flow diversion. Extensive sustainable drainage features and best management practices will optimize storm water quality while providing benefits to surface drainage and groundwater management. Peak stormwater flow diversion via a proposed new storm trunk outfall at 0 Avenue will convey drainage flows from the majority of the western Douglas catchment directly to Semiahmoo Bay, as opposed to the Campbell River, which will mitigate ongoing flooding issues through the Peace Portal Golf Course. Lastly, improvements are proposed to the Campbell River culvert inlets under Highway No. 99 that will significantly improve the flow hydraulics and actually lower the flood levels in the lower reaches of the Campbell River by about 0.5 metres during peak storm events.

The Douglas NCP drainage servicing strategy was included in the public consultation process of the NCP Amendment. Furthermore, staff met directly with the Peace Portal Golf Course ("PPGC") General Manager and their engineering consultant throughout the drainage study process, to ensure PPGC's two main concerns, noted below, were addressed:

- Flooding of their lowland floodplain due to peak Campbell River flows; and
- Surcharging/flooding of the existing undersized trunk storm main through the property.

As noted above the proposed drainage best management practices, flow diversions, and upgrade of the Campbell River inlets under Highway No. 99 will, in fact, reduce the peak flood levels in the Campbell River, post Douglas NCP development. In addition, the area draining to the PPGC trunk storm main will be reduced from 59 hectares at present to about 11 hectares, most of which will remain undeveloped open space.

Regulatory Agencies, including the Department of Fisheries & Oceans, were consulted and provided input into the Douglas NCP drainage servicing strategy. Staff had preliminary discussions with Border Security Agencies (both Canada and United States), and the Fraser River Estuary Management Program (FREMP), relative to the proposed storm outfall along 0 Avenue to Semiahmoo Bay.

As Development No. 7905-0120-00 is the first application to move forward in the west Douglas catchment, the Developer's Engineer is required to lead the final design, coordinate regulatory agency approvals and construct the 0 Avenue storm outfall. Overall, it is expected that the implementation of drainage measures approved under the Major NCP amendment will improve drainage in the Douglas area. No additional drainage requirements are, therefore, required.

Tree Retention

The applicant has proposed that 378 mature trees be removed from the site. All of these trees are within the proposed small lots area. These trees are mainly cottonwood and alder, with interconnected shallow root systems adapted to a soil condition with the water table close to the surface. The result of such a condition is that this type of tree stand does not withstand any clearing and attempts at retention of small clusters or groups is unsuccessful. The arborist and City staff have reviewed the site to assess whether there is any potential for retention, but has found no opportunity. Additionally, no opportunities have been identified to relocate any mature or smaller trees on site.

Park Dedication

It is important to note that 1.32 acres will be set aside as open space/park within in the subject site, which is approximately 20 percent of the site, to retains trees and habitat as part of a larger open space network. Within this 1.32 acres there are an additional 143 protected trees and numerous smaller trees that will be retained. The applicant is working with the City's Parks Planning Division to ensure that the maximum numbers of trees can be retained in the open space/park, that additional planting can take place within the park to ensure the longevity of the treed habitat area, and that the tree removal within the development area will be sensitive to minimize potential impact on the open space/park edge trees.

Replacement Trees and Compensation

The applicant proposes a total of 116 upsized replacement trees on the site and an additional 48 trees in the boulevards. As these are small lots, there is little opportunity to locate more than two trees on each lot to improve the replanting in the development area. However, the shortfall in replacement trees will be addressed through compensation to the City as a cash-in-lieu contribution to the City's Green Fund of approximately \$90,000. The applicants have suggested that they would like to put these monies directly back into the Douglas neighbourhood through replanting trees in the dedicated park space and/or partnering with local environmental organizations to provide space and funding for education programs. The applicants recently donated \$1,200 to Kidz Gone Green for tree planting, potentially within the Douglas Park area.

CONCLUSION

As a result of concerns raised at the Public Hearing on the proposed development, staff have reviewed the concerns pertaining to traffic, access, security, drainage and tree retention. With the measures discussed in this report being stipulated as a condition of approval for this application, staff is of the opinion that the issues raised at the Public Hearing have been addressed adequately. Consequently Third Reading of the Rezoning By-law is, therefore, recommended.

Jean Lamontagne
General Manager,
Planning and Development

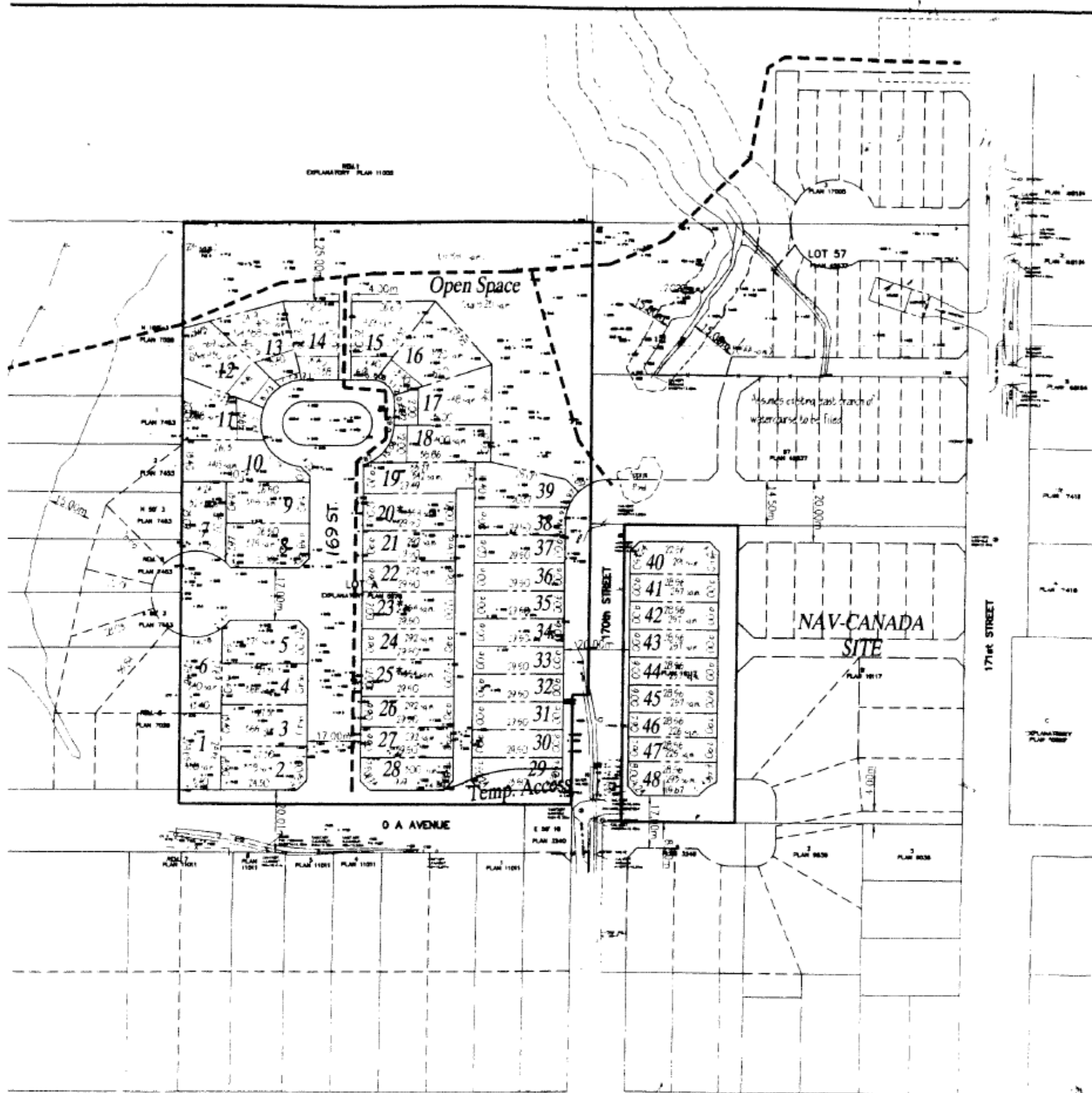
Paul Ham, P.Eng.
General Manager, Engineering

TW/kms/saw

Attachments:

- Appendix I 7905-0120-00 Proposed Layout
- Appendix II Douglas Applications
- Appendix III Corporate Report No. L001 (without appendices)
- Appendix IV Douglas NCP, as amended
- Appendix V Road Network Improvement

7905-0120-00 LAYOUT



NOTES:

- PRELIMINARY LAYOUT ONLY, SUBJECT TO APPROVAL
- AREAS AND DIMENSIONS ARE SUBJECT TO DETAILED SURVEY AND CALCULATION, AND MAY VARY
- NOT TO BE USED FOR LEGAL TRANSACTIONS

ices Ltd.
 NE(604)596-0391
 604)596-8853

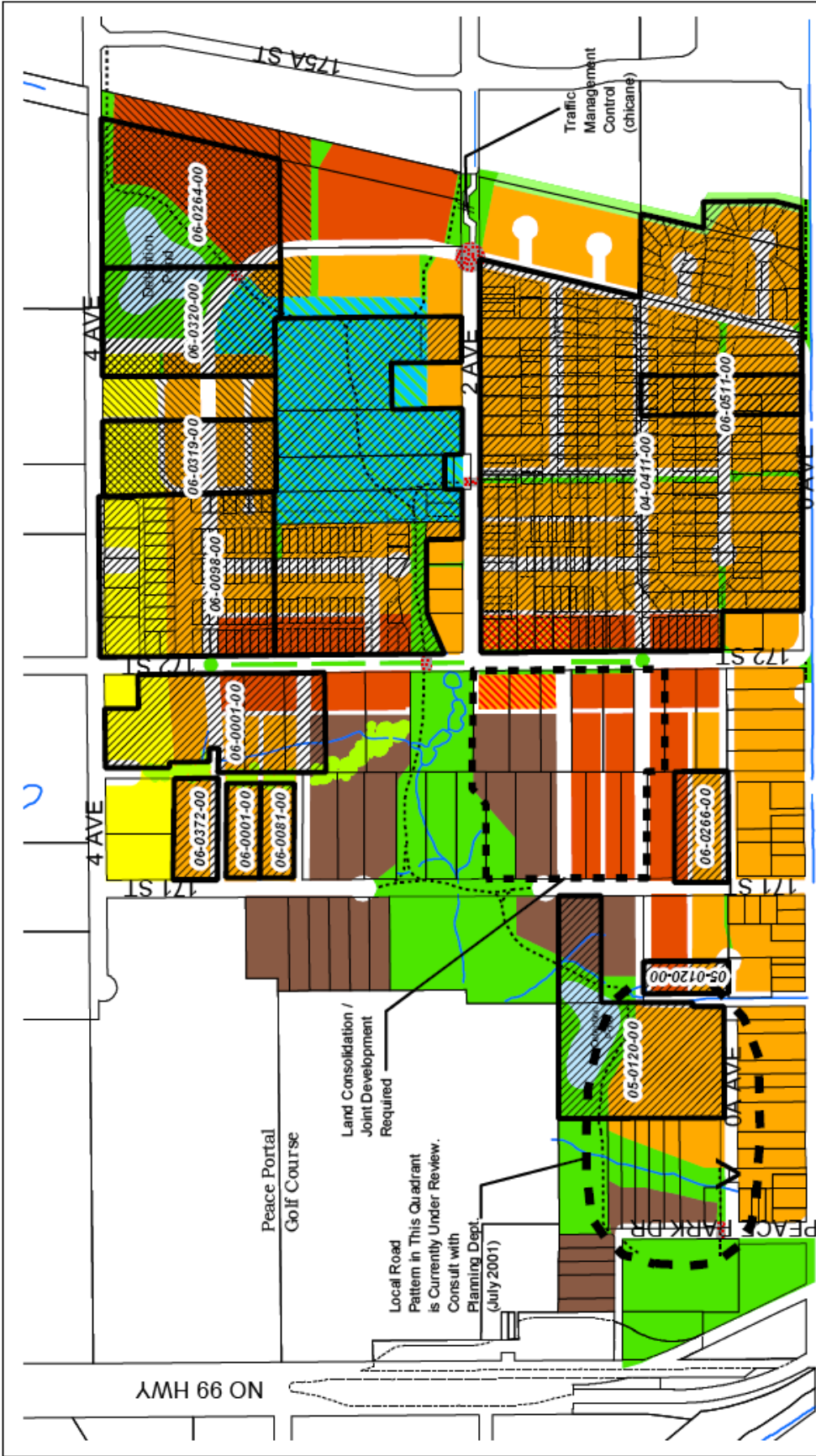
Quadri Properties

SKETCH 24

Revised 4, 7 '07

Summary of Douglas Area Applications

7904-0411-00	Approved June 2007
7905-0120-00	Subject of this Report
7906-0001-00	Pre-Council
7906-0081-00	Pre-Council
7906-0098-00	Approved June 2007
7906-0264-00	Pre-Council – Scheduled for November, 2007
7906-0266-00	Pre-Council
7906-0319-00	Pre-Council – Scheduled for November, 2007
7906-0320-00	Third Reading Approved
7906-0372-00	Pre-Council
7907-0062-00	Pre-Council



Appendix II

- Creeks & Rivers
- Special Paving Areas
- Strata lots
- Main Pedestrian Corridors
- Buffer to Industrial Area
- Townhouse (15 u.p.a.)
- Small Lot Single Family (10 u.p.a.)
- Urban Single Family (6 u.p.a.)
- Suburban 1/2 Acre (2 u.p.a.)
- Commercial / Residential
- Open Space
- School / Park Site
- Traffic Circles & Landscaped Median
- Significant Vegetation Corridor

This map is provided as general reference only. The City of Surrey makes no warranties, express or implied, as to the fitness of the information for any purpose, or to the results obtained by individuals using the information and is not responsible for any action taken in reliance on the information contained herein.

DOUGLAS LAND USE PLAN
 Approved by Council: April 15, 1999



Corporate Report

NO: L001

COUNCIL DATE: February 12, 2007

REGULAR COUNCIL – Land Use

TO: Mayor & Council DATE: February 12, 2007

FROM: Acting General Manager, Planning & Development
General Manager, Engineering FILE: 7904-0411-00

SUBJECT: Douglas Neighbourhood Concept Plan – Major Amendment

RECOMMENDATION

The Planning & Development Department and Engineering Department recommend that Council:

1. Receive this report as information;
2. Approve amendments to the Douglas Neighbourhood Concept Plan ("NCP"), as documented in Appendix 'C' of this report, to increase the opportunity for small lot residential development by:
 - (a) Creating a "Single Family Residential Flex (6 upa to 14.5 upa)" designation as an alternative land use; and
 - (b) Adopting the evaluation criteria as means to review NCP amendments to the Single Family Residential Flex designation.
3. Authorize staff to proceed with all necessary actions to update the NCP Engineering servicing plan; and
4. Authorize staff to proceed with processing the development applications for the lands that are proposed to be covered by the Single Family Residential Flex designation within the Douglas NCP area.

INTENT

The intent of this report is:

- To bring forward proposed amendments to the Douglas Neighbourhood Concept Plan (NCP) for Council consideration;

- To advise Council of the results of the recent public consultation for active development applications related to the proposed Douglas NCP Amendments;
- To advise Council of the results of the Engineering Servicing studies related to the proposed Douglas NCP Amendments; and
- To obtain Council approval in principle to amend the land use and related servicing concepts of the Douglas NCP to provide flexibility and opportunities for small lot residential development in the NCP area.

BACKGROUND

Douglas Neighbourhood Concept Plan

The Douglas plan area is comprised of approximately 60 hectares (150 acres) of land and is generally bounded by Highway 99 to the west, the Canada/USA border (Washington State) to the south, 4 Avenue to the north, and 175 Street alignment to the east (see Appendix A).

The land uses proposed in the Douglas NCP are as follows:

Land Use Designation	Area	Percentage (%) of Total Area
Suburban	4.35 ha (10.75 acres)	7%
Urban Single Family 6 upa	27.4 ha (67.8 acres)	44%
Single Family Small Lot 10 upa	9.05 ha (22.4 acres)	15%
Townhouses 15 upa	7.3 ha (18.1 acres)	12%
Apartments (Mixed Use)	0.7 ha (1.72 acres)	1%
Commercial	0.7 ha (1.72 acres)	1%
Joint School/Park Site	5.35 ha (13.2 acres)	9%
Detention Ponds	1.4 ha (3.4 acres)	2%
Parks and Open Space	5.3 ha (13.1 acres)	9%
TOTAL	61.6 ha (152.2 acres)	100%

The Douglas NCP was approved by Council in July 1999, prior to the City introducing small lot zones into the Zoning By-law in 2002. The Douglas NCP has some opportunity for small lot development, but the majority of the single detached residential areas are designated "Urban Single Family at 6 upa." In addition the Douglas NCP specifically prohibited homes with in-ground basements as a means of keeping services shallower in some of the areas that have challenging topographic conditions.

There has been no significant development of the Douglas neighbourhood since the NCP was approved in 1999. The area has required land assembly and is expensive to service due to its relative isolation from existing servicing trunk infrastructure. Furthermore, the market demand for homes without in-ground basements is very weak. This has precipitated the submission of application proposing NCP Amendments that will allow higher densities, smaller lots, and in-ground basements.

In-Stream Applications

Ten (10) development applications were submitted between December 2004 and December 2006, all of which include amendments to the Douglas NCP to increase density in designated single family areas by introducing smaller single family lots using

the RF-9 and RF-12 small lot standards. The location of these applications is shown in Appendix B.

The largest development application leading these NCP amendments is by Cressey Development Corporation (Development Application No. 7904-0411-00). A second developer, Equitas (Development Application No. 7906-0098-00), has been working with Cressey to advance these amendments through the review and consultation process.

Cressey Development Application (Development Application 7904-0411-00)

The initial application in Douglas by Cressey Development Corporation was submitted in December 2004. This application proposes a major amendment to the Douglas NCP Land Use Concept and Servicing Plan. Due to the proposed density increases in the NCP Amendment, Cressey has conducted in-depth servicing and drainage studies, as well as public consultation on their application. The Engineering Studies take into consideration the broader implications of the proposed density increases.

Council was forwarded Corporate Report L005 regarding the proposed Douglas NCP amendments in April 2006, and describing the process that the various development proponents were undertaking to address the NCP amendment proposals (Appendix D). Since that time, additional applications have been submitted and all the developers held a coordinated Open House/Public Information meeting on November 22, 2006 at the Aston Pacific Inn, where all developers were on hand with displays to describe each of their proposals and NCP Amendments. The results of the Engineering studies were also displayed at the meeting to provide an overview of servicing, drainage, and traffic study results.

DISCUSSION

Major NCP Amendment Process

The Official Community Plan (the "OCP") contains policies to guide the procedures for NCP amendments. These procedures require the proponent to prepare a comprehensive impact analysis and rationale for any plan amendment that seeks to change land use or densities. The analysis should consider the impact of the proposed amendment on land uses, schools, parks, amenities and facilities, and engineering services. A public consultation process is required to solicit community concern and understand issues.

Land Use Justification for the Douglas NCP Amendment

The primary emphasis for housing in the existing Douglas NCP was proposed to be in the form of conventional (RF Zone) single family lots (with a minimum of 15 metres (50 ft.) width, 28 metres (90 ft.) depth, and 560 square metres (6,000 sq. ft.) lot area. However, since the adoption of the Douglas NCP in 1999, small lot residential development has been accommodated in the Zoning By-law and has become a preferred form of single family detached residential development in many NCP areas due its sustainability and affordability.

As available land supplies become scarce and servicing and construction prices increase, smaller lot housing is becoming the increasingly affordable option for both developers

and homeowners. In addition, more dense and compact developments utilize infrastructure more sustainably, as well as relieving the pressure on non-urban lands to redevelop for residential housing. Land use analysis in Douglas requires two additional considerations: compatibility with existing residential development, and maintenance of the Agricultural Land Reserve (ALR) interface.

While it is optimal to increase densities, it is important to support the relationship of existing residential development with that of redevelopment areas. For that reason, in Douglas, the urban single family areas should stay 'single family' areas, while allowing the densities to increase through the option of small lots where appropriate. The "Single Family Residential Flex (6 upa to 14.5 upa)" designation allows the appropriate interface to take place between existing and proposed developments. The designation is supported by Development Guidelines required for assessing proposed 'flex' designations in the context of existing land uses and the Douglas NCP land use designations (Appendix C). The criterion provides location, interfacing, and approval process guidelines to ensure future development is compatible with adjacent land uses and NCP objectives.

The "Single Family Residential Flex" designation development guidelines support the gradual decrease in density towards the ALR. City Policy No. O-23 'Residential Buffering Adjacent to the ALR/Agricultural Boundary' requires that proposed lots on the ALR edge must be a minimum of a half-acre where a road separates the proposed lots from the ALR. The proposed development guidelines support the transition from the ALR edge through to the 'Urban' designated areas by requiring the further review of the density gradient with each proposal. The guidelines require that the smallest lot option, RF-9, cannot interface directly with the 'Suburban' designated areas.

The Planning and Development Department finds that the proposed NCP amendments are fully supportable for the individual applications and may apply to additional areas as they submit development applications.

School and Park Sites

The Parks, Recreation and Culture Department, and the Surrey School District No. 36 have participated in the Development Application/NCP Amendment review process and have not expressed concern over the impact of increased densities. Parks has noted that the area is well served by parks with the school/park site and green space comprising approximately 20% of the Douglas NCP area. The additional densities will augment the capacity of Parks and Recreation to purchase lands over the required 5% dedication.

The School District has revised the projected capacity proposed for the elementary school planned for Douglas (lands provided within Cressey Development Application No. 7904-0411-00) and will continue to assess all the applications. Their full build-out estimates are for a school with a capacity for 80 K + 350. The School District is currently in the process of purchasing the lands for the school site and has identified the new school for funding.

Based on the proposed NCP Amendments, the potential density impact was calculated for benchmark purposes. This density impact was assessed by reviewing the potential for all designated single family and single family small lot areas to become flex designated, and thus, be able to accommodate a range of single family densities, from conventional (RF

Zone) to small lots (Single Family Residential Flex 6 to 14.5 upa). The result of that assessment, shown below, was that the approximate build out for the NCP area would result in a potential build-out population of 4,200 persons versus the original 2,900 described in the Douglas NCP.

	Current NCP Land Use Plan	Estimated Increase*	Amended NCP Land Use Totals
Housing Units	954	361	1,315
Population	2,900	1,308	4,208

* Based on 3.2 ppu

This benchmark was used as a base for traffic and servicing studies to conduct design analysis.

The increase in number of households as a result of the proposed Douglas NCP amendment will require a corresponding increase in amenity contributions as per the established NCP amenity schedule.

Engineering Services

The bulk of the background work that was required to address impacts involved reviewing and updating plans for servicing in the area. The results of the servicing studies are described below.

Transportation

From a transportation perspective, the Douglas neighbourhood is very isolated with no road connectivity to the west and south, and very little road connectivity to the east. Access and egress of Douglas effectively occurs entirely to the north via Highway No. 15, Highway No. 99 and 172 Street to 8 Avenue. These key access routes have been improved significantly as the Province has recently upgraded 8 Avenue, including a new traffic signal at 172 Street, and Highway No. 15, including a new traffic signal at 2 Avenue. The local road network within Douglas will have relatively low traffic volumes consisting of almost exclusively local traffic - even with the proposed density increases. 171 Street through the open space area was proposed to be closed in the original NCP, but is now proposed to remain open to improve the north-south connectivity and more evenly disperse the increased local traffic as a result of the area densification. Moderate traffic calming measures, including traffic circles and curb bulges, are proposed to help prevent speeding traffic along the main through roads 172 Street and 2 Avenue. Figure E.1 illustrates the proposed Douglas road network.

The Douglas neighbourhood is not conducive to transit service because it is remote from the remainder of community and has a relatively low build-out population. Douglas is, however, well suited to pedestrian and bicycle circulation and extensive sidewalks, pathways, and bike routes are proposed throughout the area and to connect beyond.

Water

The existing residents in Douglas are currently serviced with small diameter water mains that are fed from a single direction from the Sunnyside water supply system located at 146 Street/22 Avenue. The original Douglas NCP servicing concept proposed establishing a cross border water connection with the City of Blaine, Washington, which is no longer considered practical. Furthermore, there is very little capacity remaining in the Sunnyside water supply system, and the remaining capacity - together with water currently consumed by the Douglas residents - can be much more effectively utilized to accommodate growth in the Sunnyside and Semiahmoo areas. Lastly, the GVRD constructed the Grandview Reservoir in 1999 as the longer-term source for water supply east of Highway No. 99, and the City recently undertook trunk water improvements in this area to further strengthen water distribution. As such, an entirely new water servicing strategy has been developed to service the amended Douglas NCP.

A new water supply main is proposed on 164 Street south of 24 Avenue that will convert the Douglas area to a strong, well looped supply from the Grandview Reservoir. This in turn will revert capacity back to Sunnyside water supply system to accommodate growth in Sunnyside and Semiahmoo. The water infrastructure within Douglas also requires upgrading and extension to meet the proposed domestic and fire flow requirements. Figure E.2 illustrates the proposed Douglas water servicing concept.

Sanitary

There is a City sanitary sewer system in place servicing the about half of the lands within the Douglas neighbourhood – primarily in the more developed southwest area. This sanitary system also extends outside the NCP including properties along Highway No. 99 at the Peace Arch Border Crossing, along Highway No. 15 at the Pacific Border Crossing, and at 8 Avenue/Hazelmere. The sewage flows to the Douglas sanitary pump station, and is then pumped to the Semiahmoo sanitary pump station located at 8 Avenue/160 Street. The existing Douglas NCP sanitary servicing concept was to replace the existing Douglas pump station with a new station with capacity to service the entire NCP, and extend sanitary sewers throughout the NCP. This concept had limitations in that some excessively deep sewers would be required to service the far extents of the NCP, and even with that a large area in the northeast corner would not be serviceable by gravity and would be required to pump, and a significant portion of the NCP would not be deep enough to facilitate basement homes. Lastly, the majority of surplus capacity available at the Semiahmoo pump station in 1999 is now being used as a result of recent development – most notably the Grandview Corners commercial site. As such, an entirely new sanitary servicing strategy – involving two separate sanitary catchments - has been developed to service the proposed amended Douglas NCP.

The smaller, western portion of the NCP and the Peace Arch area is proposed to continue to service to the existing Douglas pump station, which has adequate capacity for full build-out of this sub-catchment. The larger, eastern portion of the NCP and lands beyond is proposed to service to a new pump station in the northeast area. The revised concept offers significant benefits including elimination of the excessively deep sewer extensions and pumped areas while accommodating full basement service for the entire NCP. In addition, numerous capacity and operational upgrades are proposed to be undertaken at

the Semiahmoo pumping system to support the proposed amended Douglas NCP flows. Figure E.3 illustrates the proposed Douglas sanitary servicing concept.

Drainage

The Douglas NCP occupies roughly 1% of the total Campbell River watershed, which extends a great distance upstream through Surrey, Langley Township, and Washington State. The existing drainage infrastructure within Douglas consists of mostly roadside ditches with a limited network of shallow storm sewers. The Douglas area forms two natural drainage catchments. The western area is tributary to an undersized trunk storm sewer that flows through the Peace Portal Golf Course, and the eastern area is tributary to a trunk storm sewer north along Highway No. 15. The original Douglas NCP drainage servicing concept reflects standard storm water management of the 1990s which was to construct a storm water detention pond at the inlet of each of the two trunk systems to attenuate peak flows prior to discharge to the Campbell River. Storm water management has evolved tremendously in the last 10 years. It is now understood that storm detention ponds in the lower reaches of large watersheds such as Campbell River can in fact increase water levels and flooding for large storm events. Also, sustainable drainage measures and other best management practices developed in recent years provide a much more comprehensive and integrated approach to managing urban storm water. As such an entirely new drainage servicing strategy has been developed to reflect state of the art drainage servicing that is suitable for basement homes for the amended Douglas NCP.

Under this new plan, storm detention ponds are proposed to be eliminated and the drainage managed through sustainable drainage features and peak flow diversion. Extensive sustainable drainage features and best management practices are proposed to optimize storm water quality while providing benefits to surface drainage and groundwater management. Peak storm flow diversion is proposed to address ongoing flooding issues through the Peace Portal Golf Course by installing a new storm trunk outfall at 0 Avenue to convey drainage flows from the majority of the western catchment directly to Semiahmoo Bay as opposed to the Campbell River. Lastly, improvements are proposed to the Campbell River culvert inlets under Highway No. 99 that will significantly improve the flow hydraulics and actually lower the flood levels in the lower reaches of the Campbell River by about 0.5 m during peak storm events. The proposed drainage servicing concept facilitates full build-out of the amended Douglas NCP while resolving localized flooding issues and improving flow management and reducing flooding of the Campbell River, both during low flows and peak storm periods. Figure E.4 illustrates the proposed Douglas drainage servicing concept.

Financial Aspects of Servicing

The Douglas area is relatively expensive to service given the isolation from available City water and sanitary sewer infrastructure, and the challenges of the Campbell River watershed. These financial challenges were noted in the original Douglas NCP which proposed servicing levies as a means of ensuring the NCP is self-funded. Since that time servicing costs have risen significantly, and new servicing strategies as proposed above have evolved. On the other hand, Development Cost Charge (DCC) revenue potential of the NCP at full build-out has risen, with the pending DCC increase to take affect in June 2007. However, despite increased DCC revenue potential there will be shortfalls for all

three utilities that will result in the following approximate Development Work Agreement (DWA) Levies in order to self-fund necessary trunk infrastructure:

- Water \$27,000 per hectare
- Sanitary Sewer \$62,000 per hectare
- Drainage \$32,000 per hectare

The cumulative DWA levy of approximately \$121,000 per hectare translates to roughly \$5,900 per residential unit based on proposed amended Douglas NCP densities. DWA levies in this range are believed to be a reasonable, affordable premium in context with overall land development costs – especially when considering basement potential alone nets up to \$25,000 more market value per lot. A Development Works Agreement does, however, require the approval of the majority of the property owners who would be subject to the levy which is payable at the time of development.

The servicing strategies proposed within this report in turn necessitate changes to the 10 Year Servicing Plan, and as a result a separate report regarding revisions to the 10 Year Plan to reflect the servicing requirements necessary to support proposed amended Douglas NCP will be submitted.

Public Consultation

Public Information Meetings

The lead developers (Cressey – Development Application No. 7904-0411-00 and Equitas – Development Application No. 7906-0098-00) have each conducted Public Information Meetings. Cressey has completed three Public Information Meetings. Two of these meetings were based on the Cressey development application and the final meeting was a joint Public Information Meeting conducted by all applicants on November 22, 2006.

Equitas has held one Public Information Meeting for their specific proposal, and participated in the November 22, 2006 ‘all applicants’ Public Information Meeting. These meetings are briefly summarized below.

The first Cressey Public Information Meeting was held on March 2, 2005 and was intended to assess community and individual concerns about the proposed project and NCP Amendments. There were 111 attendees registered at this Public Information Meeting. The second Public Information Meeting was held on May 11, 2005 to address the concerns noted at the March Public Information Meeting, and scope additional issues to be addressed. Approximately 49 persons attended this session.

Equitas Development Corporation held a Public Information Meeting on June 28, 2006 to present their proposed project and discuss community concerns. There were 37 attendees at this meeting.

Both Cressey Developments and Equitas Development Corporation have had a number of follow-up consultations with individuals in the Douglas area to more fully understand the concerns they expressed in order to address them through the review process.

November 22, 2006 Joint Public Information Meeting – All Applicants

By September 2006, there were additional development applications in the Douglas area. All the applications include NCP amendments for small lots. In order to provide an opportunity for the community to review and comment on all the applications at once, as well as present the findings of the Engineering studies that were in process, the applicants held a joint Public Information Meeting to present all the proposed projects, servicing schemes and traffic analysis.

The ten (10) applicants held an Open House on November 22 of 2006 at the Aston Pacific Inn in South Surrey. Invitations were mailed to all the landowners in the Douglas NCP area, and extended to a minimum of one additional lot beyond the boundaries of the Douglas NCP area. Each developer had representatives on hand to discuss the proposals, and staff from Planning and Engineering attended as resources. Information presented at the Open House included:

- Display panels: Each applicant presented their proposals for density and related changes in road configuration.
- The lead developers presented the preliminary findings and financial information of Engineering studies to demonstrate that infrastructure and drainage will have sufficient capacity to meet the requirements of increased density in Douglas.

Joint Public Information Meeting Response

The Joint Public Information Meeting was held by the development applicants who currently represent over 50% of the land area in the NCP and support the NCP amendments proposed. Approximately 68 people attended the Open House in addition to the developer representatives and staff. One survey was used as the opportunity to comment for all applications. The survey responses were analyzed to identify common responses. The following is a synopsis of the results of the analysis:

- The City received 17 completed comment sheets, 1 e-mail submission and 2 written submissions.
- Of the 17 respondents, 5 noted that they were in favour of the proposals, 10 noted that they opposed the proposals and two did not indicate support/non-support. Some of the negative responses are from small landowners who questioned the original Douglas NCP when it was being done.
- The e-mail and written submission expressed concern over density, traffic and environmental impacts.
- Over 50% of the Douglas NCP area is under application (57 of the 149 residential properties). Many of the landowners party to the applications did not attend the meetings or did not feel they had to respond to the questionnaire.
- The most frequently noted comments for concern were traffic, density, and environmental impact.

Issues

The following provides a brief overview of each of the more frequently recorded issues and a discussion of the issue:

Traffic

Comments throughout the process have expressed concerns related to the ability of the area to accommodate the additional traffic generated by proposed densities. The concerns have focused on the ability of traffic to enter and leave the area rather than internal road networks being able to accommodate the increased traffic.

These concerns have been brought up in part due to the traffic congestion created by commercial truck traffic blocking access at 2nd Avenue and 176th Street (Highway 15, Pacific Highway), the lack of lights at 4th Avenue and Highway 15 and blockages due to commercial truck traffic, the delay in lights being installed at 8th Avenue and 172nd Street and the subsequent perception that commercial truck traffic can also block this intersection, and the temporary closure of Peace Park Drive which exits on to Highway 99.

The City's Engineering Department and Equitas, one of the lead developers, cost-shared on a Traffic Impact Study, prepared by Trevor Ward. While it was determined that traffic volumes will increase beyond those anticipated in the original NCP, the road network was designed for more than adequate capacity to handle the additional loads. Furthermore, recent road enhancements will improve access to and from the area. This study has shown, that the main road networks proposed for the Douglas NCP will fully accommodate the build-out population of Douglas.

The report also noted that "border runners" impacted local traffic volumes, particularly during the weekend. During peak hours it was found that a number of vehicles transited the neighbourhood along 172nd Street and 2nd Avenue to bypass the lineups at the Canada/US border. The NCP proposed a number of measures to deal with this problem (roundabouts on 172nd Street and traffic restrictions on 2nd Avenue). The project proponents are proposing to enhance those measures by adding an additional roundabout at 4th/172nd Street to further reduce traffic speeds and discourage border traffic.

As part of the densities proposed, the applicants are proposing to modify local road layouts, which is necessary when implementing smaller lot sizes. All of the proposals are being coordinated so that modifications to roadways will be shown comprehensively when each application moves forward to Council.

Facilities and Infrastructure and Drainage

Concerns have been expressed about the servicing and drainage as they related to increasing densities in this area.

As noted above, updated Transportation, Water, Sewerage, & Drainage studies have been completed to adequately service full build-out of the Douglas NCP at the proposed higher density. Overall Financial and Phasing Implications

As noted in the Financial Section above, the proposed increased density within the Douglas NCP helps keep the Development Works Agreements levies necessary to ensure the NCP is self funded more affordable on a per household basis.

Trees/Habitat Retention

Some of the comments and concerns relate to the preservation of trees and wildlife habitat in the NCP area.

The Douglas NCP included an objective to maintain and preserve natural features, including existing trees where possible. With the decreased lot sizes and increased densities in the single-family areas, some level of tree removal is inevitable. In addition, the Douglas NCP area has a soils regime that is troublesome for tree retention. Many trees that have grown in stands on a shallow rooting layer with high water tables, therefore any portion of stand removal will jeopardize further tree retention and create hazardous situations. It should be noted that it is usually more difficult to save trees in small lot residential subdivisions however, this would not necessarily be the case in Douglas even if development was proposed under the densities currently proposed by the Douglas NCP. Cressey has evaluated the differences in tree retention if they did not propose an increase in density and found that few, or no, additional trees could be retained. More detailed information on their review will be included in the Planning Report for the Cressey application.

The City's Tree Preservation By-law requires that surveys be completed for each development site and an arborist's report regarding each protected tree on the site with a view to retaining as many protected as possible. The developers have also expressed concern over tree retention on sites and within dedicated roadways and will be working with staff on tree retention, the provision of funds to the City's Green Fund in lieu of replacement trees that cannot be located on small lots and the provision of additional landscaped areas/community amenity in place of trees. This will be addressed by each individual application.

Consultation With Peace Portal Golf Course

Peace Portal Golf Course (PPGC) has been acknowledged as a major stakeholder when considering increased densities – particularly as it relates to drainage. The PPGC General Manager and their Engineering Consultant advisor have been consulted throughout the drainage study process. PPGC has two main concerns:

- Flooding of their lowland floodplain due to peak Campbell River flows.
- Surcharging/flooding of the existing undersized trunk storm main through the property.

As noted in the Servicing Summary above the proposed drainage best management practices, flow diversions, and upgrade of the Campbell River inlets under Highway

No. 99 will in fact reduce the peak flood levels in the Campbell River post Douglas NCP development. In addition the area draining to the PPGC trunk storm main will be reduced from 59 hectares at present to about 11 hectares – most of which will remain undeveloped open space.

Implementation of NCP Amendments

The NCP Amendments will be done with a phased approach as follows:

1. Council approves in principle the Douglas NCP Amendments outlined in this report along with the associated Engineering servicing plan.
2. Individual development applications will be processed subsequent to Council's approval in principle. Each application will include in more detail the land use rationale for proposals and an analysis of how the proposals have followed the Development Guidelines for the flex designation.

Original signed by

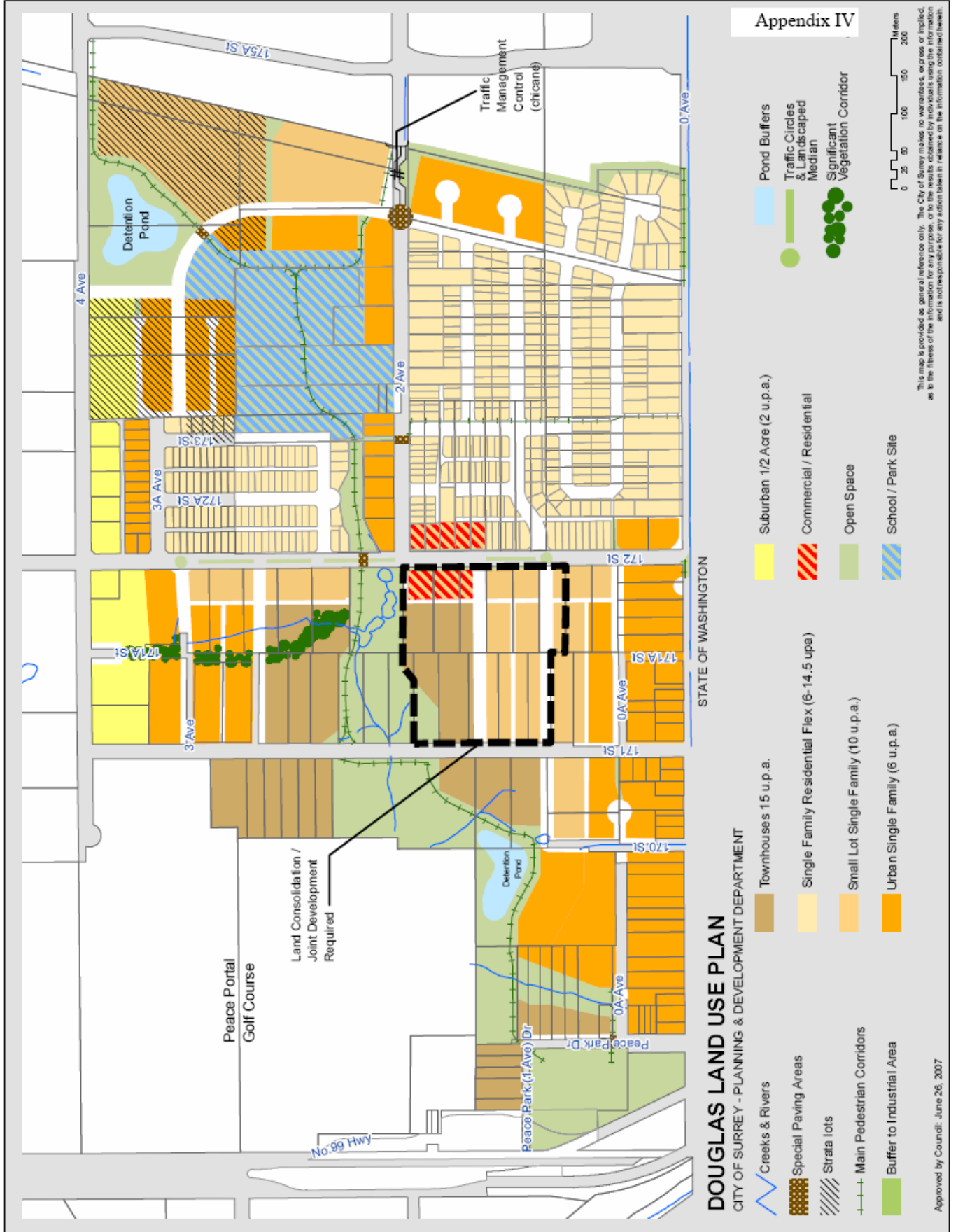
How Yin Leung
Acting General Manager
Planning & Development

Original signed by

Paul Ham, P. Eng.
General Manager, Engineering

RAW/TW:brb/rdd

Appendix A	Current Douglas NCP
Appendix B	Map Illustrating Location of Applications
Appendix C	Proposed Major Amendments for the Douglas NCP – Land Use and Engineering Components
Appendix D	Corporate Report No. L005
Appendix E	Engineering Services

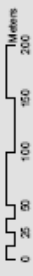


Appendix IV

DOUGLAS LAND USE PLAN

CITY OF SURREY - PLANNING & DEVELOPMENT DEPARTMENT

- Creeks & Rivers
- Special Paving Areas
- Strata lots
- Main Pedestrian Corridors
- Buffer to Industrial Area
- Townhouses 15 u.p.a.
- Single Family Residential Flex (6-14.5 u.p.a.)
- Small Lot Single Family (10 u.p.a.)
- Urban Single Family (6 u.p.a.)
- Suburban 1/2 Acre (2 u.p.a.)
- Commercial / Residential
- Open Space
- School / Park Site
- Pond Buffers
- Traffic Circles & Landscaped Median
- Significant Vegetation Corridor



This map is provided as general reference only. The City of Surrey makes no warranties, express or implied, as to the fitness of the information for any purpose, or to the results obtained by individuals using the information and is not responsible for any action taken in reliance on the information contained herein.

