



District of Maple Ridge

TO: His Worship Mayor Ernie Daykin
and Members of Council

MEETING DATE: January 7, 2013
FILE NO: 2012-036-CP

FROM: Chief Administrative Officer

ATTN: Workshop

SUBJECT: Update on Public Consultation for the
Draft Wildfire Development Permit Area Guidelines

EXECUTIVE SUMMARY:

At the Council meeting on July 10, 2012, the following resolution was passed:

That staff be directed to undertake the proposed public consultation process for the Wildfire Development Permit Area Process as part of the early and ongoing consultation requirements of the Local Government Act.

Since that date, staff have undertaken a process consisting of a public open house and two builders' forums. Attendees at these events were asked to provide input and a survey was posted online for further input. The outcomes of these events and a summary of the surveys are attached to this report.

The draft Wildfire Development Permit Area Guidelines (WFDP) are based on the recommendations that came out of 2006 Community Wildfire Protection Plan, prepared by B.A. Blackwell & Associates. The Plan was based on the Maple Ridge Wildfire Risk Management System, which is a report (also prepared by B.A. Blackwell & Associates) of an assessment study that looked at wildfire probability and consequences within the entire District (28,675 ha) and the surrounding 5 km perimeter.

Council adopted in principle, the recommendations of the Community Wildfire Protection Plan on July 10th, 2007 and requested staff to develop a detailed implementation plan for all of the recommendations contained in the Plan and to apply for grant funding from the Union of BC Municipalities.

On October 16, 2007 a grant was conditionally awarded by the Union of British Columbia Municipalities to help fund the development of wildfire legislation in Maple Ridge. Funding in the amount of \$23,000 is available upon submission of Council adopted Wildfire Development Permit Area Guidelines.

A team of staff consisting of representatives from Fire, Planning, Engineering, Operations, Building, and Parks & Leisure Services have worked together for several months on preparing draft Wildfire Development Permit Area Guidelines, the key elements of which were presented at the two Builders' Forums and the Public Open House.

RECOMMENDATIONS:

- 1) That Council receive this report, dated January 7, 2013, including the draft Wildfire Development Permit Area Guidelines, draft Development Procedures Checklist, and map identifying the proposed Wildfire Development Permit Areas;
- 2) Whereas Council has considered the requirements of Section 879 of the *Local Government Act* that it provide, in respect of an amendment to an Official Community Plan, one or more opportunities it considers appropriate for consultation with persons, organizations and authorities it considers will be affected and has specifically considered the matters referred to in Section 879(2) of the *Act*;
- 3) And whereas Council considers that the opportunities to consult proposed to be provided by the District in respect of an amendment to an Official Community Plan constitute appropriate consultation for the purposes of Section 879 of the *Act*;
- 4) And whereas, in respect of Section 879 of the *Local Government Act*, requirement for consultation during the development or amendment of an Official Community Plan, Council must consider whether consultation is required with specifically:
 - a. The board of the Regional District in which the area covered by the plan is located, in the case of a Municipal Official Community Plan;
 - b. The Board of any Regional District that is adjacent to the area covered by the plan;
 - c. The Council of any municipality that is adjacent to the area covered by the plan;
 - d. First Nations;
 - e. School District Boards, greater boards and improvement district boards, and
 - f. The Provincial and federal governments and their agencies;
- 5) And in that regard it is recommended that the only additional consultation to be required in respect of this matter beyond the early posting of the proposed Maple Ridge Official Community Plan Amending Bylaw (Wildfire Development Permit Area Guidelines) on the District's website, together with an invitation to the public to comment, is referral to the Agricultural Land Commission, Metro Vancouver, Neighbouring Municipalities of Pitt Meadows and Mission, UBC Malcolm Knapp Research Forest, School District 42, Department of Fisheries & Oceans, Ministries of Environment and Transportation, and Katzie and Kwantlen First Nations;
- 6) And that staff be directed to prepare the Wildfire Development Permit Area Guidelines Official Community Plan Amending Bylaw, along with an amendment to Development Procedures Bylaw 5879-1999.

BACKGROUND:

In 2006, B.A. Blackwell & Associates were retained to conduct a wildfire risk assessment that can indicate, at any given location and under specific conditions, the probability of a wildfire occurring and for given wildfire behavior, what the potential consequences on resources may be. The assessment culminated in the report entitled, "District of Maple Ridge Community Wildfire Risk Management System". The following statement is found early in the report:

Historically the mid to low elevation stands of timber in this area have been exposed to high severity stand replacement wildfires that has the potential to significantly alter the forests adjacent to and within the District. The probability of large wildfires within this community is considered low to moderate and the consequences associated with a large wildfire could be devastating.

The findings in the risk assessment report were incorporated into the Maple Ridge Community Wildfire Protection Plan, also prepared by B.A. Blackwell in 2006. The Plan states that:

The District of Maple Ridge is embedded within the forest; approximately 60% of the community is forested. This region of the Province is susceptible to both lightning and human caused fires. Overall, the community could be classified with a fire risk profile described by a low to moderate fire probability and high to extreme consequences based on the values at risk.

The Maple Ridge Community Wildfire Protection Plan contains twenty-one (21) recommendations that focus on communication and education, structure protection, emergency response, training and post fire rehabilitation. Several of these recommendations have already been implemented by the Fire Department.

On July 10th, 2007, the following resolution was carried by Council:

That the recommendations contained in the Community Wildfire Protection Plan be adopted in principle pending the development of a detailed implementation plan with an associated financial plan which will be brought back to Council for their consideration and adoption; and

That staff be instructed to make application to the Union of British Columbia Municipalities for grant funding to develop an implementation plan for the Community Wildfire Protection Plan recommendations.

A technical working group was formed in 2007, made up of District staff from Fire, Planning, Engineering, Operations, Building, and Parks & Leisure Services. The group worked together for several months on draft Development Permit Area Guidelines (WFDP) and Development Procedures Checklist (both attached to this report as Appendix A and B). These drafts were developed using the information and recommendations made in the 2006 District of Maple Ridge Wildfire Risk Management System study and the 2006 District of Maple Ridge Community Wildfire Protection Plan (CWPP), the standards set in the National Fire Protection Association's guidelines (NFPA-1144) and input from the technical working group.

PROJECT DESCRIPTION:

Official Community Plan

Section 919.1 of the *Local Government Act* permits the designation of Development Permit Guidelines for development areas at risk to hazardous conditions, such as wildfire (see attached proposed Wildfire Development Permit Area Map, as Appendix C). Development Permit Areas are designated by an Official Community Plan. As such, an amendment to the Official Community Plan is required.

The intent of Wildfire Development Permit Area Guidelines is to minimize the risk to property and people in areas at risk. Further, the intent has been to create these Guidelines so that they work in concert with all related regulations, guidelines and bylaws. The Guidelines contain four "Key Guideline Concepts", which will be applied to assess Wildfire Development Permit Area applications:

1. Locate development on individual sites so that when integrated with the use of mitigating construction techniques the risk of wildfire hazards is reduced;
2. Mitigate interface fire hazards without compromising environmental conservation objectives and while respecting other hazards in the area;
3. Ensure identified hazard areas are recognized and addressed within each stage of the land development process; and
4. Proactively manage potential fire behavior, thereby increasing the probability of successful fire suppression and containment and minimizing adverse impacts.

There are four subsequent sections of the Guidelines document that provide guidance on achieving the above "Key Guidelines Concepts" and these are:

1. Design and Construction;
2. Building Design and Siting;
3. Hazard Mitigation through Design;
4. Landscaping Open Spaces.

Generally, the highlights of the draft Wildfire Development Permit Area Guidelines are as follows:

- **Buffer from Forest Edge:**
Where buildings face a forest edge, the guidelines propose a 10m buffer, which may include a rear yard setback, public trail and/or public road. Additionally, FireSmart landscaping standards are proposed for application within rear yards to ensure minimal fuel loading within the buffer area.
- **Forest Edge Mitigation Measures:**
A Wildfire Mitigation Assessment report, prepared by a Registered Professional Forester and recommendations implemented.
- **Construction Materials:**
Appropriate construction materials and details are prescribed in the NFPA-1144 document, which is the National Fire Protection Association's standards for reducing structure ignitions from wildland fire and/or equivalencies meeting the intent as acceptable to the District's Fire Chief.
- **Exemptions:**
Public works and services and maintenance activities carried out by or on behalf of the District are exempt. Interior renovations within an existing legally constructed building are also exempt. Partial exemptions permitted for:
 - a) small renovations;
 - b) subdivisions resulting in no more than two residential lots;
 - c) properties being actively farmed.

Clause 8.12.2(A)(2) of the draft Development Permit document states:

If the above-mentioned NFPA standards and the guidelines in this Section 8.12.2 cannot be adhered to, the District of Maple Ridge Fire Chief may consider alternate solutions that meet the intent of these guidelines and are acceptable to the District.

Public Consultation Process

As stated above, establishing a Wildfire Development Permit Area requires an amendment to the Official Community Plan. A public consultation process was undertaken with Council's direction from the July 10, 2012 Council meeting:

That staff be directed to undertake the proposed public consultation process for the Wildfire Development Permit Area Process as part of the early and ongoing consultation requirements of the Local Government Act.

Public consultation is required to ensure compliance with the following provisions of the *Local Government Act*:

*“Consultation during OCP development
Section 879*

- (1) During the development of an official community plan, or the repeal or amendment of an official community plan, the proposing local government must provide one or more opportunities it considers appropriate for consultation with persons, organizations and authorities it considers will be affected.*
- (2) For the purposes of subsection (1), the local government must:*
 - a. Consider whether the opportunities for consultation with one or more of the persons, organizations and authorities should be early and ongoing, and*
 - i. The board of the regional district in which the area covered by the plan is located, in the case of a municipal official community plan,*
 - ii. The board of any regional district that is adjacent to the area covered by the plan,*
 - iii. The council of any municipality that is adjacent to the area covered by the plan,*
 - iv. The council of any municipality that is adjacent to the area covered by the plan,*
 - v. First nations,*
 - vi. School district boards, greater boards and improvement district boards, and*
 - vii. The Provincial and federal governments and their agencies.*
- (3) Consultation under this section is in addition to the public hearing required under section 882(3) (d).*

In addition, Section 881 of the Act requires consultation with the School Board during the preparation of an Official Community Plan amendment:

- (1) If a local government has adopted or proposes to adopt or amend an official community plan for an area that includes the whole or any part of one or more school districts, the local government must consult with the boards of education for those school districts*
 - a. At the time of preparing or amending the community plan, and*
 - b. In any event, at least once in each calendar year.*

The public consultation process was undertaken in addition to the legislative requirements prescribed for bylaw adoption in the *Local Government Act*. Public input on the draft WFDP was received through two builders’ forums, a public open house, and an on-line questionnaire. The key elements of these guidelines were presented on the following dates:

- Builders’ Focus Group Meeting held at Fire Hall No. 1 – May 8, 2012
- Builders’ Forum held at Fire Hall No. 1 – September 12, 2012
- Public Open House held at Fire Hall No. 1 – October 3, 2012
- 2nd Builders’ Forum held at Fire Hall No. 1 – November 27, 2012

Given that the process included discussion with industry experts, residents, developers, and the public, the process is deemed to be appropriate.

Public Open House

Notification of the public open house was by way of letter mailed out to 2000 property owners located in the proposed WFDP Area, newspaper advertisement, and information on the website. A total of 41 people attended the public open house. District staff from various departments were on hand to help explain the information presented on the poster boards and answer any questions. A survey/questionnaire was available for attendees at the open house, as well as online. A total of 17 questionnaires were returned to the Fire Department, seven of these were through the online option.

Out of the 17 respondents, eight confirmed that they live in a wildfire interface area and three were not sure. Twelve responded affirmatively to the question asking if they thought “that taking measures to reduce the risk of wildfire hazard will help improve safety”. There was only one respondent who did not agree with that statement. Additionally, ten people agreed that they would like to receive public education and training in how to reduce wildfire hazard risk on their property. The survey, which includes additional questions and comments is attached to this report, as Appendix D.

Builders’ Focus Group and Forums

A builders’ focus group meeting was held on May 8, 2012 intended to gauge concerns about the Wildfire Development Permit Area Guidelines and identify what kind of information the group wanted staff to present at the builders’ forum event.

For each of the builders’ forums, sixty invitations were sent out to people and businesses connected to the building and development community. At the first forum event, which was held on September 12, 2012, ten people attended. The development community expressed concerns with the costs associated with using fire resistant building materials along the forest edge. There was also a concern expressed with a potential loss of site density for a very specific scenario, where a private property would abut an adjacent forested private property located in the proposed Wildfire Development Permit Area. Prior to the first builders’ forum, staff had researched past development scenarios in the proposed Wildfire Development Permit Area and were not able to identify any examples of where a loss of density would occur.

Due to the concerns raised about increased building costs and potential loss of site density, staff arranged for a second builder's forum, wherein the same 60 invitations were sent to the building/development community (see attached invite letter, as Appendix E) and requested they submit their Wildfire Development Permit Area "worst case scenarios" on their lands for staff to review and then discuss at a second builder's forum, which was held on November 27th. No submissions were received. A total of six people attended the second builders' forum and the same concerns raised at the first builders' forum were discussed. The minutes of this forum are attached (as Appendix F) and the concerns were addressed as follows:

1. Construction Material

CONCERN: That through adoption of a Wildfire Development Permit, there will be a requirement to use fire-resistant materials along the forest edge, such as hardiplank.

RESPONSE: Vinyl siding is a popular construction material used in many developments in Maple Ridge, particularly at the sides and rear of buildings and these are most likely the façades facing a forest edge. The intent is to mitigate loss or damage to the building itself. Reducing the risks associated with vinyl siding (while continuing to use vinyl siding) is possible installation of a non-combustible building wrap and an external sprinkler system installed on the façade(s) facing the forest edge. A minimum of two sprinkler heads on the forest edge façade(s), designed and certified by a sprinkler professional, will be required. The cost is estimated to be approximately \$250 per sprinkler head when an internal system is also installed within the building.

In general, the Fire Department is proposing to consider equivalency construction options to those proposed in the NFPA 1114 document.

2. Impacts on Site Density

CONCERN: How will density/lot yield be impacted on a proposed development site that abuts a forested development site in private ownership that will not be developing in the near future and where zoning permits a minimum 6m rear yard setback?

RESPONSE: Although no specific examples could be identified, by either staff or the development community, in the event such a situation occurs, developers would be encouraged to try to gain cooperation with their neighbours. This is a common approach taken whenever neighbourly cooperation is necessary for a development to proceed. If cooperation is not possible, other options are to look at a reduction in front yard setbacks and/or to design a subdivision layout, so that the residential street abuts the forest edge, or to postpone construction of the lots that would be facing the forest edge until the adjacent lands are under development. In the event that these scenarios occur, it is anticipated that they would be located in the Eco-Cluster designated areas of the Silver Valley Area Plan. The Planning Department would generally be supportive of applicants making up any potential density loss, through the application of the Wildfire Development Permit Area Guidelines, by considering additional units through a duplex form of development.

CONCERN: How will the above issue impact lots where it is the side of the building that faces the forest edge, with a minimum setback required in the zoning bylaw of 1.5m?

RESPONSE: Currently, the fire and engineering departments require that a hammer-head be constructed at the end of such dead-end roads. Therefore, in these scenarios, end lots

typically remain undeveloped to accommodate the hammerhead and are not developed until the adjacent lands are under development. There may potentially be situations where there is sufficient space to accommodate a hammerhead as well as develop the lot at the end of the dead-end road, but to date staff have not encountered any such scenarios.

Amongst the participants in the builders' forums, there was a general understanding and appreciation for the risks associated with development along the forest interface. Comments received from the participants at the end of the second builders' forum were positive and no further issues or concerns have been identified to date.

Formal Referrals

The draft Wildfire Development Permit Area Guidelines will be sent to the following organizations for comment in accordance with Section 879 of the *Local Government Act*.

- **Metro Vancouver:**
Formal consultation with the Metro Vancouver is not required as the proposed Development Permit Area will not result in amendments to the Regional Context Statement. It is also noted that the proposed wildfire work is consistent with Strategy 4.3 of the Regional Growth Strategy, which states that municipalities will “adequately protect development in areas at higher risk from natural hazards such as floods, landslides and interface fires”. A copy of the draft Wildfire Development Permit will be forwarded as information to the Region.
- **Neighbouring Municipalities:**
A copy of the draft Wildfire Development Permit Area Guidelines will be referred as an information item to the City of Pitt Meadows and the District of Mission.
- **UBC Malcolm Knapp Research Forest:**
Representatives from the Malcolm Knapp Research Forest attended the Public Open House session on October 3, 2012. A copy of the draft Wildfire Development Permit Area Guidelines will be referred as an information item to the Malcolm Knapp Research Forest after First Reading.
- **Agricultural Land Commission:**
There are properties located in the Agricultural Land Reserve that will be impacted by the WFDP. Therefore, it is recommended that the draft Development Permit be referred to the Commission for comment prior to First Reading.
- **School District 42:**
As discussed above, section 881 of the *Local Government Act* requires consultation with the local school board during the preparation of an amendment to an official community plan. In order to satisfy this requirement, a copy of the draft Wildfire Development Permit will be referred to the School District for comment prior to First Reading.

- **Federal and Provincial governments and their agencies:**
A formal referral of the Wildfire Development Permit Bylaw will be sent to the federal Department of Fisheries and Oceans and provincial Ministries of Environment and Transportation following First Reading of the bylaw by Council.
- **First Nations:**
A copy of the draft Wildfire Development Permit will be forwarded as information to both the Katzie and Kwantlen First Nations.

INTERDEPARTMENTAL IMPLICATIONS:

The participation of the technical working group will continue with the Fire, Planning, Engineering, Building, Operations, and Parks & Leisure Services Departments, as the implementation plan is developed for internal processing of development applications within the Wildfire Development Permit Area. Depending on the scope of mapping and the changes required to the Amanda file management system, the Information Services department may be included for their assistance.

FINANCIAL IMPLICATIONS:

Implementation of the Wildfire Development Permit will be accomplished under the Fire Department's existing funding and the \$23,000 grant received from the Union of British Columbia Municipalities to implement the recommendations contained in the Community Wildfire Protection Plan.

NEXT STEPS:

The intent of the public process was to create an awareness of the risks, listen to concerns, and identify options that will reduce impacts to key stakeholders. After working through this process and identifying alternatives to areas of concern, no further issues have been raised and it is recommended that this process proceed to Council. The next steps involved in this process are to prepare an amendment to the Official Community Plan implementing the recommendations of the Council endorsed Wildfire Protection Plan.

Further refinement of the attached draft Wildfire Development Permit Area Guidelines (Appendix A) and the draft Wildfire Development Application Submission Checklist (Appendix B) will continue prior to First Reading. Additionally, these drafts will be forwarded to the District's solicitors for a legal review.

CONCLUSION:

The draft Wildfire Development Permit is intended to mitigate the risks associated with forest interface development. These are desirable areas to live and recreate and they will continue to generate a demand for community development. As stated above, the intent of the public process was to create an awareness of the risks, listen to concerns, and identify options that will reduce impacts to key stakeholders. After working through this process and identifying alternatives to areas of concern, no further issues have been raised and it is recommended that this process proceed to Council. The next steps involved in this process are to prepare an amendment to the Official Community Plan implementing the recommendations of the Council endorsed Wildfire Protection Plan.

“Original signed by Lisa Zosiak”

Prepared by: Lisa Zosiak
Planner

“Original signed by Peter Grootendorst”

Co-Prepared by: Peter Grootendorst
Fire Chief/Director of Operations

“Original signed by Christine Carter”

Approved by: Christine Carter, M.PL., MCIP, RPP
Director of Planning

“Original signed by Frank Quinn”

Approved by: Frank Quinn, MBA. P.Eng
GM: Public Works & Development Services

“Original signed by J.L. (Jim) Rule”

Concurrence: J. L. (Jim) Rule
Chief Administrative Officer

The following appendices are attached hereto:

- Appendix A: Draft Wildfire Development Permit Area Guidelines
- Appendix B: Draft Wildfire Development Procedures Checklist
- Appendix C: Draft Wildfire Development Permit Area Map
- Appendix D: Public Survey/Questionnaire Summary
- Appendix E: Invite Letter to 2nd Builders’ Forum
- Appendix F: Minutes from 2nd Builders’ Forum

8.12 Wildfire Development Permit Area Guidelines

The Wildfire Hazard Development Permit Area Guidelines are intended for the protection of life and property in designated areas that could be at risk for wildland fire and where this risk, in some cases, may be reasonably abated through implementation of appropriate precautionary measures.

A Development Permit will be required for all development and subdivision activity or building permits for areas identified as wildfire hazard risk areas identified in Figure 9 of Appendix E. A Development Permit may not be required under certain circumstances indicated in the Development Permit Exemptions, Section 8.4, Items 4 and 5.

These Development Permit Guidelines are to work in concert with all other regulations, guidelines and bylaws in effect. In the event of a conflict between these Development Permit Guidelines and other regulations, guidelines or bylaws the conflict will be resolved by the District.

8.12.1 Key Guideline Concepts

The intent of the Key Guideline Concepts is to ensure that development within the wildfire hazard risk areas is managed to minimize the risk to property and people from wildland-urban interface fire hazards and to further reduce the risk of potential post-fire landslides and debris flows.

The Wildfire Development Permit Area Guidelines apply to single family development, multi-family development, institutional, commercial and industrial, including strata and free-hold properties, as well as park and open-space areas.

Applications for Wildfire Development Permits will be assessed against the following key guideline concepts:

1. Locate development on individual sites so that when integrated with the use of mitigating construction techniques the risk of wildfire hazards is reduced;
2. Mitigate interface fire hazards without compromising environmental conservation objectives and while respecting other hazards in the area;
3. Ensure identified hazard areas are recognized and addressed within each stage of the land development process; and
4. Proactively manage potential fire behavior, thereby increasing the probability of successful fire suppression and containment and minimizing adverse impacts;

8.12.2 Guidelines

A. Design and Construction

1. The design and construction of buildings and structures located within the boundaries of the Wildfire Hazard Development Permit Areas shall be in accordance with the following key guidelines. Specific details can be found in the standards set forth in the latest editions of the NFPA-1144 (Standard for Reducing Structure Ignition Hazards from Wildland Fire) and NFPA - 1141 (Standard for Fire Protection Infrastructure for Land Developments in Suburban and Rural Areas); and

2. If the above mentioned NFPA standards and the guidelines in this Section 8.12.2 cannot be adhered to, the District of Maple Ridge Fire Chief may consider alternate solutions that meet the intent of these guidelines and are acceptable to the District. See Wildfire Development Permit Application Checklist for details.

B. Building Design and Siting

1. NFPA-1144 (Standard for reducing structure ignition hazards from Wildland Fire) building guidelines are to be used for all new development;
2. Fire resistant building materials and methods;
 - a) Class A or B rated roofing material on new roofs and >50% roof replacements
 - b) All vents are screened with metal screens
 - c) Non combustible soffits
 - d) Overhanging projections protected
 - e) Overhanging buildings protected
 - f) Exterior vertical wall clad with ignition resistive material
 - g) Non combustible window screens
 - h) Non combustible 20 minute rated exterior doors
 - i) Spark arrestors on all wood burning appliances
 - j) Laminated or multi-paned windows
3. Buildings adjacent to the crest of a vegetated slope may require special mitigation measures determined by the fire department; and
4. Accessory buildings located within the Wildfire Development Permit buffer area must meet the same building standards as the house.

C. Hazard Mitigation through Design

1. The development building face should be located a minimum of 10 metres away from the adjacent high risk wildfire areas. 10 meter fire breaks must be created between all sides of the foundation and the forest interface (vegetation shall be modified to mitigate hazardous conditions within 10 meters of the foundations prior to the start of construction). The fuel break may include treating fuel on the existing parcel or developing a trail as a part of the fuel break, or included in an environmental and geotechnical setback if such treatment is mutually beneficial to the intent of the setback areas and FireSmart principles.
2. 10 metre fire breaks may incorporate cleared parks roads or trails;
3. Locate building sites in the flattest areas on the property and avoid gullies or draws that accumulate fuel and funnel winds;
4. To minimize the hazard to residential buildings in Wildfire Development Permit Areas, FireSmart standards should be incorporated taking into account: (1) siting form; (2) exterior design; and (3) finish of buildings and structures (see Wildfire Development Permit Area Guidelines security policy);
5. Steep roofs, hidden gutters around roofs and screens to cover attic vent openings are preferred in order to prevent the collection of leaves or needles and to reduce the risk of ember shower accumulation;
6. Fire Hydrants must be fully functional prior to construction above the foundation level;

7. Where appropriate, if a trail system is planned for a subdivision and a park it should be capable of emergency vehicle access with 1.5 m trail base and a minimum of 2 m cleared vegetation and pullouts for passing and turnaround every 500 m (in areas where a 30 m environmental setback is required, the District may consider including the trail within the 30 m setback); and
8. Two means of access are preferred for subdivisions in a Wildfire Development Permit Area. If two access points are not possible then the following standard applies:
 - a. Single access - the roadways must have a minimum drivable surface of 7.4 m (clear width of 3.7 m for each lane of travel, excluding shoulders and parking).
 - b. Two access routes - the primary drivable surface must have 6 m of drivable surface. The secondary means of access must at a minimum conform to BC Building standard A 3.2.5.6(1) for fire department access and be a minimum of 6 m.

D. Landscaping and Open Spaces

1. FireSmart landscaping standards should be incorporated. Landscaping should be designed so as to create minimal fuel loading within the landscaped areas, provide ongoing protection from the interface fire hazard and the type and density of fire resistive plantings incorporated within landscaped areas should help mitigate the interface fire hazard;
2. Removal of all debris (wood and vegetation) after land clearing for development must be completed prior to the registration of any new subdivision plan;
3. All wood, vegetation and construction debris identified in the qualified professional forester's report should be removed within three months of development permit issuance, or immediately during high fire risk seasons, and the District may require security in connection with such removal;

SECTION 8.4, DEVELOPMENT PERMIT AREA EXEMPTIONS, OF THE OFFICIAL COMMUNITY PLAN.

4. A Wildfire Development Permit is not required for the following and will be confirmed in writing by the District upon receipt of a security that is refundable upon satisfactory completion of the works:
 - a) Where a renovation or addition to an existing structure is less than 50% of the market value of the current structure a Wildfire Development Permit will not be required.
 - b) If a subdivision or development results in the creation of two or less residential lots, and all the principles and guidelines contained in the Wildfire Development Permit are adhered to by the Developer or Builder, a Wildfire Development Permit will not be required.
 - c) On lands where agricultural activities, as defined by the Agricultural Land Commission, are being practiced and where the Building Design requirements of the NFPA-1144 (latest edition) document are followed.

5. A Wildfire Development Permit shall not be required under the following circumstances, as confirmed in writing by the District:
 - a) Public works and services and maintenance activities carried out by, or on behalf of, the District of Maple Ridge;
 - b) Any work that is not associated with or required in connection with a District permit;
 - c) Interior renovations to a lawfully constructed or legally non-conforming structure within the original building foundation



DISTRICT OF MAPLE RIDGE PLANNING DEPARTMENT

Development Application Submission Checklist

Schedule J WILDFIRE DEVELOPMENT PERMIT APPLICATION

The District will provide the opportunity for applications to meet with staff from the appropriate departments early in the application process. Applications for Wildfire Development Permits are to be made to the Planning Department, and must include the first five items listed below, as the initial step in the process;

- 1) Site information based on a survey plan prepared by a certified B.C. Land Surveyor;
- 2) Current state of title certificate and copies of all restrictive covenants registered on title, including relevant schedules and attachments;
- 3) Location map;
- 4) Map or plan of the property including topography, natural features, existing structures, infrastructure, surface drainage, parcel boundaries, adjacent streets and rights of way;
- 5) Detailed site plan and/or air photo overlay indicating the intended location of all proposed structures, approved environmental protection setback areas for watercourses, wetlands, and steep slopes, sewage disposal systems, storm water detention, drainage works, driveways, parking areas or impervious surfaces, servicing infrastructure, and indicating the extent of the proposed site clearing;

Subsequent to a meeting with Planning, Fire, and Engineering staff, the following will be required:

- 6) Assessment of fire interface hazards and mitigation measures by a Registered Professional Forester, qualified by training or experience in fire protection engineering, with at least two years experience with assessment and mitigation of wildfire hazards in British Columbia;
- 7) A description of the methodology, criteria and assumptions used to undertake the assessment;
- 8) The results of the assessment must include:
 - a) Identification of hazardous C2, C3 and C4 fuels at the wildland-urban interface edges of the planned subdivision and map these edges based on the drip-line of the trees at the wildland edge;
 - b) Recommendations for FireSmart fuel removal and fuel reduction zones to be completed for the whole development prior to Development Permit approval;
 - c) Recommendations for establishing defensive space around all buildings by spacing of all coniferous trees and maintaining and pruning of all remaining trees;
 - d) Recommendations for the type and placement of trees and other vegetation in proximity to the development;

- e) Recommendations for the clean up and proper disposal of combustible material remaining from construction as soon as construction is complete;
 - f) Recommendations for mitigation of wildfire hazard on any wildland/ green spaces to be handed over to the District;
 - g) Results of an assessment of Wildland Fire Risk and Hazard Severity in the Structure Ignition Zone as per NFPA 1144(latest edition);
 - h) Recommendations for the removal and proper disposal of dead trees and continued efforts to keep the land free of accumulation of any dead trees;
 - i) Recommendations for removal and proper disposal of all tree limbs and shrubs that may overhang roofs or grow under building eaves and to continually maintain this condition;
 - j) Recommendations for the removal and disposal of all needles, dead twigs and branches, and to maintain the lands free of such accumulation;
- 9) A written synopsis demonstrating that the proposed development is consistent with the applicable Development Permit Guidelines as provided by the District, and NFPA-1144 (latest edition) (Standard for reducing structure ignition hazards from “Wildland Fire) and NFPA – 1141(latest edition) (Standard for Fire Protection Infrastructure for Land Developments in Suburban and Rural Areas) identifying any mitigation or compensation measures that may be specified as development permit or rezoning conditions;
- a) if alternative solutions are being proposed for the consideration of the Maple Ridge Fire Chief, as noted in Section 8.12.2 of the Development Permit Area Guidelines, the alternative solutions must be provided by either a Fire Protection Engineer and/or a Registered Professional Forester registered with the Association of BC Forest Professionals and other professionals as deemed necessary by the District. Note: The Registered Professional Forester must have at least two years experience with assessment and mitigation of wildfire hazards in British Columbia. The qualifications of the Registered Professional Forester must be acceptable to the District of Maple Ridge Fire Chief;
- 10) Conclusions of a qualified professional (as discussed in 9(a) above), accompanied by supporting rationale;
- 11) The District may solicit a peer review by another qualified professional and/or ask for other additional information the District deems necessary.

FURTHER CONSIDERATIONS:

1. Coordination amongst all relevant consultants of record is recommended for final wildfire interface mitigation measures. Mitigation measures for wildfire areas must take place outside of approved environmental protection areas and geotechnical setback areas where possible, unless approved by the District’s environmental section and the Approving Officer.
2. The applicant may be required to submit written “Terms of Reference” indicating the scope of work and professional expertise to be used for the preparation of development approval information. The Terms of Reference must be approved by the District prior to the information being prepared.
3. Where hazards are identified on the site, the District may require the submission of plans and reports in electronic format for inclusion in the District’s hazard database. Where the

District deems any report or information submitted to be inadequate, such report or information will not be accepted and a permit will not be issued.

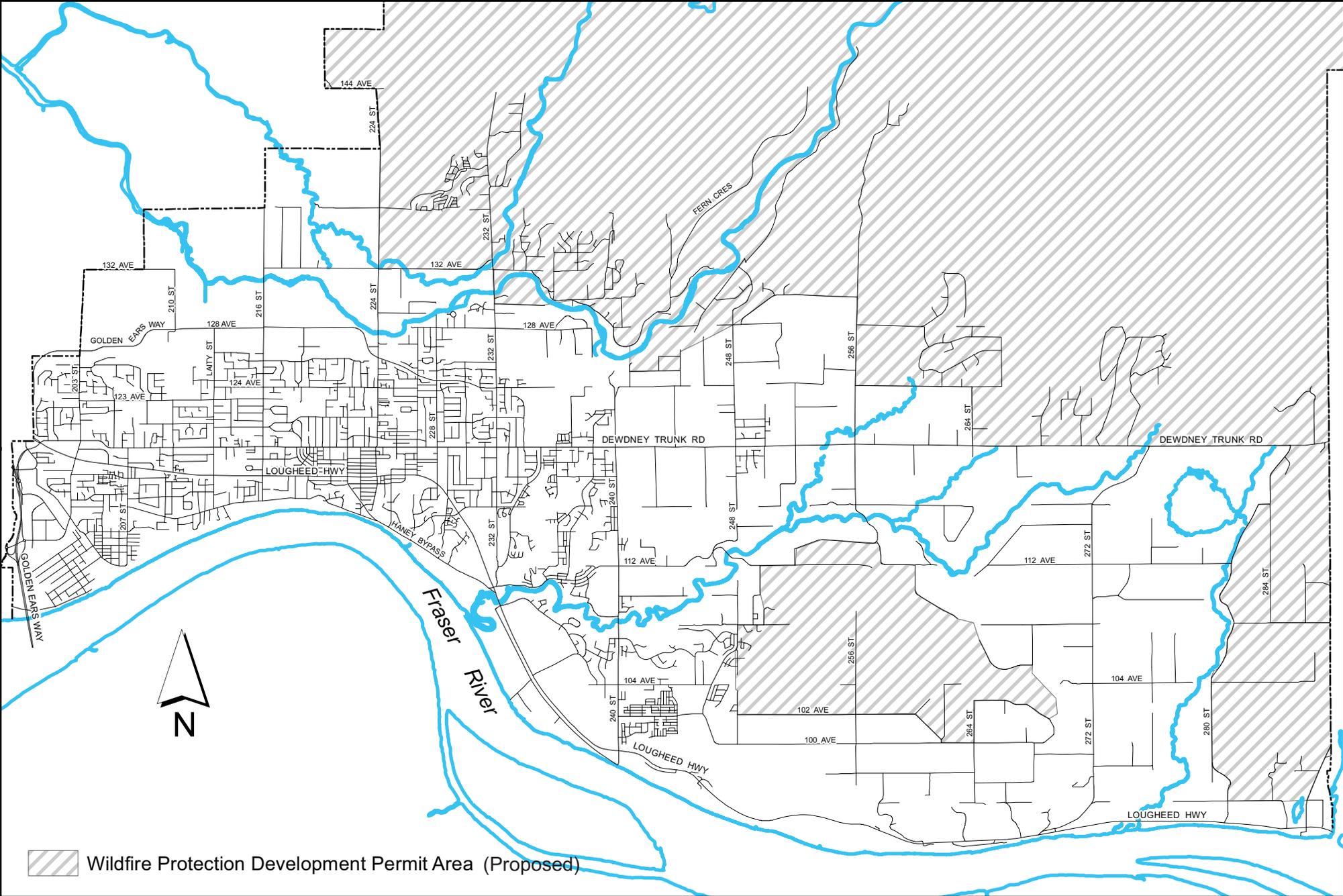
4. All reports and information shall be prepared in a digital format as well as three paper copies and provided at the applicant's cost. All reports, opinions and plans shall be signed and sealed by the appropriate qualified professional.

References:

- National Fire Protection Association 1144 (Standard for Reducing Structure Ignition Hazards from Wildland Fire);
- National Fire Protection Association 1141 (Standard for Fire Protection Infrastructure for Land Developments in Suburban and Rural Areas);
- The Home Owner's FireSmart manual - Protecting Your Home From Wildfire;
- FireSmart - Protecting Your Community From Wildfire.

DRAFT

Proposed Wildfire Protection Development Permit Areas



Increasing Community Wildfire Safety

1. Do you live in a wildfire interface area?			
1. Yes (8)	2. No (5)	3. Do not know (3)	4. Not Yet (1)
2. Do you think wildfire safety is an important issue in Maple Ridge?			
1. Yes (11) 2. No (2) 3. Not sure (1)			
<ul style="list-style-type: none"> • Increasingly so as time goes on and residential areas expand, fires will increase • Not as important as other issues • Not sure: Most Maple Ridge fires seem to be due to accident & arson. If it is very important, Thornhill residents should have city water & fire hydrants to fight wildfires effectively, quickly • There is a narrow window of risk • Brush cutting and lower branches on tall trees • Although most fires are not from forests. I believe arson and lightning are bigger causes • Also for reasons not presented in your display, eg. Increased recreational use of some forested areas (eg. Blue Mountain) • Current development practises are creating unnecessary risk by focussing development in forested areas. 			
3. For new development located within forest interface areas, do you think that taking measures to reduce the risk of wildfire hazard will help improve safety?			
1. Yes (12) 2. No (1)			
<ul style="list-style-type: none"> • Developments should all be designated to provide alternate access – 2 ways in minimum. • Education will help improve safety • I think city water and fire hydrants should be provided to Thornhill now not years from now. • If you use closed gutters and fire proof roof materials and siding • Measures need to be taken to address the existing population and property first. • Limited effectiveness, I question the need to develop in these areas in the first place, while the Siler Vally plan is attractive on paper, on the ground, the houses are much too close together and access is too restricted to 			
4. Are you interested in receiving public education and training on how to reduce wildfire hazard risk to your existing property?			
1. Yes (10) 2. No (3)			
<ul style="list-style-type: none"> • Landscaping plans should address things like bark mulch next to buildings. • I would like the map error to be corrected before this proposed map becomes legally effective • These handouts are very informative • If you use an early warning siren evacuation system • I am well aware • I am already trained 			

5.What are your suggestions on how to increase the community's safety from wildfire?

- Police and fire need to work closely to control the stampede when fire breaks out.
- Education, make documents available on the district website.
- Give Thornhill city water and fire hydrants now.
- Free Wood disposal at Landfill (transfer station)
- Turn the horse trail from Silver Valley to Mike Lake into a fire access road for an ATV and perhaps a water bladder
- Awareness, communication and positive action
- Organize work parties in different areas to clean up some of the residue and underbrush close to property lines on forested green belts
- Education, City Water, (Fire Hydrants, now that area at risk are identified (diagnosed) if would be negligence not to provide fire protection/hydrants
- When advertising the Chip-It program, state that burning has implications for human health (specifically for people with asthma and other respiratory illness), and that the air shed here is sensitive due to the narrowing of the Fraser Valley. My neighbour in Garibaldi Heights is convinced that burning is environmentally better than the Chip-It program. Perhaps Fraser Health would be interested in promoting the Chip-It program in this way.
- Maintain current laws
- thinning, fire breaks, topping
- proximity of development to potential wildfire areas as well as evacuation routes planned before development.
- Focus development in the existing developed areas, do not allow further incursions into forested areas

6.Other comments?

- Bylaws (Building Permits should not allow more than 2 unfinished houses to be adjacent to one another, especially next to occupied homes. Enforcement of fire regulations on construction sites should be a priority. Some activities should be restricted during high fire hazard eg. Tiger Torches! More training should be given to construction crews on fire suppression and prevention as well as equipment for firefighting.
- The area included Zoned East of 232nd and north side only of Dogwood Avenue does not look any different than all the way to 128th Avenue. Why is this the only portion south of the Alouette River included? Especially when it is already zoned executive acreage and development is not an option!
- Over regulation breeds bureaucracy. I disapprove of more costly government and interference in our lives.
- I spoke to Mr. Bruce Blackwell and Mr. Rod Stott at the Oct. 3rd Open House and showed them what I believe to be a mapping error and they both said that should be reviewed. The latest Ridgeview On-line map of the Thornhill area shows the treeline at 104th, not 102nd as the wildfire hazard/protection development permit area map shows. This map's designation should show the border as 104th, not 102nd, to reflect the reality of where the trees are. Today, as opposed to wherever was shown on the 2004-2006 data on which this Wildfire Dev. Permit area map is based.
- I would like to see the original "August 2006" reports done by Mr. Blackwell (He has agreed to provide them), before Council makes a binding decision.
- I would like to know why many treed areas in the other areas of Maple Ridge have not been shown on this map as "Wildfire Hazard Areas", but the section from 102nd, North to 104th, has been, in Thornhill Urban Reserve Only.
- No Permit required to drop trees.
- Tax deduction for fire resistant upgrades
- Hold developers responsible for added debris in forested areas which were pushed in during the clearing and development of properties.
- I live on Thornhill. There's never been a problem with current rules. Leave it alone for goodness

sake.

- Limited access roads including cul-de-sacs, and one way in /out roads are not safe. If more trees need to be removed from sites in order to create safer distances from fuel sources, this creates greater downstream risks from excessive runoff, so you've traded one hazard (fire) for another (flood) this is unacceptable.

APPENDIX E

Re: Wildfire Development Permit Area – Potential Development Scenarios

You are invited to participate in an inter-active seminar that will focus on how the proposed Wildfire Development Permit would apply to development scenarios. The workshop is on **Tuesday, November 27th at 4:00 p.m.** at Maple Ridge Fire Hall No. 1. For this workshop, you are requested to prepare the following:

- an actual or potential site plan for an existing land parcel, owned by you or your company, located adjacent to a forest interface; and/or
- a development pro-forma cost comparison that clearly outlines any increase in per unit costs for a potential development, located adjacent to a forest interface.

Please submit the above by 4:00 p.m. on Friday, November 16th to Maple Ridge Fire Hall No. 1, 22708 Brown Avenue. If you choose not to prepare a submission, you are still welcome to attend the event and hear the outcomes of the examples submitted.

For more information on this public process, please visit www.mapleridge.ca and go to the “business” tab, then “building and land development” in the drop-down menu.

If you have any questions on the above event or would like further information, please contact Rod Stott at rstott@mapleridge.ca.

Yours truly,

Peter Grootendorst
Fire Chief/Director of Operations

Encl .

APPENDIX F

CWDP Builders Meeting November 27, 2012

Present: Peter Grootendorst, Timo Juurakko, Bruce Blackwell, Bruce Mcleod, Chuck Goddard, Lisa Zosiak, Stephen Judd, Francis Milner (FM Technical Services Inc.), Randy Dick (Portrait Homes), Rob Grimm (Portrait Homes), Jeff Verhiel (Portrait Homes), Harry Grim (Portrait Homes), Don Bowins (D.K. Bowins & Associates. Inc.)

Concerns from Builders

- Portrait Homes were concerned that they could see a 7% loss of yield if the Community Wildfire Development Permit was implemented
- Builders wanted to know what the District would do to maintain the green space areas that the builders are required to limb trees, clean underbrush, etc.
 - Very productive site – back in 15 years
 - Growth rates slower – 25 years
 - Many 2nd growth forests were logged 50 years ago – came back very dense. When you create an edge, hemlock comes back.
- Economic point of view – if you single out one community and add extra costs – people will go to other jurisdictions to purchase homes
- How are the other jurisdictions getting away with not putting a development permit in place
- Worst case scenario – if the bordering property is private and is on a dead end road. (vehicle turn around issue and other issues)

District

- The Province is looking at legislating high hazard areas. If this happens, then building code amendments will be required through legislation.
- Our municipality has been identified as an area of risk. By not implementing the Community Wildfire Development Permit could become an increasing risk management issue.
- People do have the desire to buy homes adjacent to green space (forested interface)
- So much land to be developed up into the forest interface. If we don't get ahead of it now, it will be too late to treat the land after the fact.
- 5 jurisdictions in the Lower Mainland are moving proactively on mitigation of wildfire risk
- North Vancouver has DP in place need to comply with same as what we are asking
- Our DP areas was applied based on risk
- We have been working on this project for 5 years

Construction Material

- The District is willing to look at equivalency options to the construction items in the reference document (NFPA 1114)
- No concerns expressed about roofing material- untreated shakes are not commonly used
- Siding – most concerned about houses that back onto the forest interface. The rear of these houses will get the radiant heat even with a 10m setback.
- Initially proposed no vinyl siding, now entertaining vinyl on the front of the houses directly adjacent to forest and will look at a non combustible building wrap and hardy board or vinyl siding with a sprinkler system at the façade of the building facing the forest interface.
- Sprinkler systems
 - Dry activation system
 - Frost free head would have a fusible link (automatic style)
 - Intent to mitigate loss or damage
 - Minimum 2 sprinkler heads on the back of the house or the side that is exposed

- Deluge system in the soffits of the house
- Each individual house would only go off by heat
- \$250.00 a head using internal system in the house

Soffit

- metal soffit and metal gutters required – 20% higher in material cost
- Metal soffit all around the house
- Metal Screen mesh standard 3mm

Windows

- Windows – tempered or laminated 2 pane windows
- Vinyl around windows not an issue

Doors

- 20 minute rated

Other

- On the interface the homes will need extra protection on the façade of the home adjacent to the forest interface
- Ember transport potential is about 2 km
- developments that have obtained a 3rd reading are exempt
- Draft bylaw will be available for builders online and we will email to builders