

AGENDA

REGULAR MEETING OF COUNCIL

Monday, July 18, 2016

7:00 p.m.

Council Chamber, Municipal Hall

355 West Queens Road,

North Vancouver, BC

Council Members:

Mayor Richard Walton

Councillor Roger Bassam

Councillor Mathew Bond

Councillor Jim Hanson

Councillor Robin Hicks

Councillor Doug MacKay-Dunn

Councillor Lisa Muri



NORTH VANCOUVER
DISTRICT

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REGULAR MEETING OF COUNCIL

7:00 p.m.
Monday, July 18, 2016
Council Chamber, Municipal Hall,
355 West Queens Road, North Vancouver

AGENDA

BROADCAST OF MEETING

- Live broadcast on Shaw channel 4
- Re-Broadcast on Shaw channel 4 at 9:00 a.m. Saturday
- Online at www.dnv.org

CLOSED PUBLIC HEARING ITEMS NOT AVAILABLE FOR DISCUSSION

- Bylaw 7984 – Rezoning 3568-3572 Mt. Seymour Parkway
- Bylaw 8142 – Rezoning Employment Zone – Lynn Creek Light Industrial

1. ADOPTION OF THE AGENDA

1.1. July 18, 2016 Regular Meeting Agenda

Recommendation:

THAT the agenda for the July 18, 2016 Regular Meeting of Council for the District of North Vancouver be adopted as circulated, including the addition of any items listed in the agenda addendum.

2. PUBLIC INPUT

(limit of three minutes per speaker to a maximum of thirty minutes total)

3. PROCLAMATIONS

4. RECOGNITIONS

5. DELEGATIONS

6. ADOPTION OF MINUTES

6.1. July 4, 2016 Regular Council Meeting

p. 9-14

Recommendation:

THAT the minutes of the July 4, 2016 Regular Council meeting are adopted.

7. RELEASE OF CLOSED MEETING DECISIONS

8. COUNCIL WORKSHOP REPORT

9. REPORTS FROM COUNCIL OR STAFF

With the consent of Council, any member may request an item be added to the Consent Agenda to be approved without debate.

If a member of the public signs up to speak to an item, it shall be excluded from the Consent Agenda.

Recommendation:

THAT items _____ be included in the Consent Agenda and be approved without debate.

9.1. Funding Approval for Lynn Valley Road Widening, Safety Improvements and Bike Lane Project

File No. 16.8450.30/013.001

Materials to be circulated via agenda addendum.

9.2. Building Resilience in Canada

p. 19-33

File No. 14.7130.40/000.000

Recommendation:

THAT Council provide a letter of support to Innovation, Science & Economic Development Canada for the Demonstration Phase of the Building Resilience in Canada program, to be signed by the Mayor.

9.3. Revised Spirit Trail Alignment – Central Section

File No. 12.6285.20/506.000

Materials to be circulated via agenda addendum.

9.4. July 2016 Town Centre Update and Early Input Opportunity

p. 37

File No.

Recommendation:

THAT the June 27, 2016 memo of the Acting General Manager – Planning, Properties & Permits entitled July 2016 Town Centre Update and Early Input Opportunity be received for information.

10. REPORTS

10.1. Mayor

10.2. Chief Administrative Officer

10.3. Councillors

10.4. Metro Vancouver Committee Appointees

11. ANY OTHER BUSINESS

12. ADJOURNMENT

Recommendation:

THAT the July 18, 2016 Regular Meeting of Council for the District of North Vancouver be adjourned.

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MINUTES

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**DISTRICT OF NORTH VANCOUVER
REGULAR MEETING OF COUNCIL**

Minutes of the July 4, 2016 Meeting of the Council for the District of North Vancouver held at 7:03 p.m. on Monday, July 4, 2016 in the Council Chambers of the District Hall, 355 West Queens Road, North Vancouver, British Columbia

Present: Mayor R. Walton
Councillor R. Bassam
Councillor M. Bond
Councillor J. Hanson
Councillor R. Hicks
Councillor D. MacKay-Dunn (7:06 pm)
Councillor L. Muri

Staff: Mr. D. Stuart, Chief Administrative Officer
Ms. C. Grant, General Manager – Corporate Services
Mr. D. Milburn, Acting General Manager – Planning, Properties & Permits
Ms. L. Brick, Deputy Municipal Clerk
Mr. M. Hartford, Planner
Ms. S. Vukelic, Confidential Council Clerk

1. ADOPTION OF THE AGENDA

The Deputy Municipal Clerk noted a change to the resolution in items 9.2 and 9.3.

1.1. July 4, 2016 Regular Meeting Agenda

MOVED by Councillor MURI

SECONDED by Councillor HANSON

THAT the agenda for the July 4, 2016 Regular Meeting of Council for the District of North Vancouver be adopted as corrected.

CARRIED

2. PUBLIC INPUT

Councillor MACKAY-DUNN arrived at this point of the proceedings.

2.1. Mr. Scott Rowe, 1800 Block Bewicke Avenue:

- Spoke in support of the keeping of backyard chickens; and,
- Spoke to the benefits of a backyard food system.

2.2. Mr. Ben Dyment, 4000 Block Norwood Avenue:

- Spoke in support of backyard chickens; and,
- Commented on the various types of domestic animals that attract predators.

2.3. Dr. Lana Dymont, 4000 Block Norwood Avenue:

- Spoke in support of backyard chickens; and,
- Commented that another municipality allows backyard chickens.

2.4. Ms. Erin Marbry, 2800 Block Wembley Drive:

- Spoke on behalf of the community group Canadian Liberated Urban Chicken Klub (CLUCK); and,
- Expressed support of domestic use of backyard chickens.

2.5. Mr. Corrie Kost, 2800 Block Colwood Drive:

- Commented on the District's Small Lot Infill study.

2.6. Mr. Lyle Craver, 4700 Block Hoskins Road:

- Commented on the 2016 Community Service Grants; and,
- Spoke regarding the Small Lot Infill study.

3. PROCLAMATIONS

Nil

4. RECOGNITIONS

Nil

5. DELEGATIONS

5.1. Mr. Duncan Wilson, Vancouver Fraser Port Authority

Re: Update on the activities at the Port of Vancouver.

Mr. Duncan Wilson, Vancouver Fraser Port Authority, provided an update regarding the Vancouver Fraser Port Authority's operations and future vision.

MOVED by Councillor MURI

SECONDED by Councillor HICKS

THAT the delegation from the Vancouver Fraser Port Authority is received.

CARRIED

6. ADOPTION OF MINUTES

6.1. June 13, 2016 Regular Council Meeting

MOVED by Councillor MURI

SECONDED by Councillor BASSAM

THAT the minutes of the June 13, 2016 Regular Council meeting are adopted.

CARRIED

6.2. June 20, 2016 Regular Council Meeting

MOVED by Councillor MURI

SECONDED by Councillor BASSAM

THAT the minutes of the June 20, 2016 Regular Council meeting are adopted.

CARRIED

6.3. June 21, 2016 Public Hearing

MOVED by Councillor MURI

SECONDED by Councillor BASSAM

THAT the minutes of the June 21, 2016 Public Hearing are received.

CARRIED

6.4. June 27, 2016 Regular Council Meeting

MOVED by Councillor MURI

SECONDED by Councillor BASSAM

THAT the minutes of the June 27, 2016 Regular Council meeting are adopted.

CARRIED

7. RELEASE OF CLOSED MEETING DECISIONS

7.1. June 27, 2016 Closed Special Meeting of Council

7.1.1. Capilano Tennis Club – Lease Renewal

THAT the Mayor and Clerk be authorized to execute a new community facility lease agreement with the Capilano Tennis Club for the continued use of the tennis club facility at 2500 Capilano Road.

8. COUNCIL WORKSHOP REPORT

Nil

9. REPORTS FROM COUNCIL OR STAFF

MOVED by Councillor MURI

SECONDED by Councillor MACKAY-DUNN

THAT items 9.2, 9.3, 9.4, 9.5 be included in the Consent Agenda and be approved without debate.

CARRIED

9.1. Bylaw 8180 and 8181: 360 East Windsor Road (Thomson House)

File No. 08.3060.20/009.16

MOVED by Councillor MURI

SECONDED by Councillor MACKAY-DUNN

THAT no further readings be given to the “Heritage Revitalization Authorization Agreement Bylaw 8180 – Thomson House”.

AND THAT no further readings be given to the “Heritage Designation Bylaw 8181 – 360 East Windsor Road, Bylaw 8181, 2016”.

CARRIED

Opposed: Mayor WALTON, Councillors HANSON and BOND

MOVED by Councillor MURI

SECONDED by Councillor BASSAM

THAT Staff be directed to explore with the current owner the option of moving the Thomson House to a District owned lot in the area and report back to Council on July 11, 2016.

CARRIED

Opposed: Councillor HICKS

9.2. 2016 Community Service Grants Recommendations

File No. 10.4792.01/007

MOVED by Councillor MURI

SECONDED by Councillor BASSAM

THAT the 2016 Community Service Grants allocations of \$273,496 in accordance with Attachment A of the June 22, 2016 report of the Social Planner entitled “2016 Community Service Grant Recommendations” be approved;

AND THAT staff be directed to refer the request for an inflation adjustment to the Community Service Grant budget to the 2017 financial planning process.

CARRIED

9.3. 2016 Childcare Grants

File No. 10.4750.20/010.000

MOVED by Councillor MURI

SECONDED by Councillor BASSAM

THAT funding in the amount of \$51,643 for the twenty-five childcare grant applications listed in Table 1 of the June 15, 2016 report of the Social Planner entitled “2016 Childcare Grants” with funds allocated from the Childcare Grant account be approved;

AND THAT staff be directed to refer the request for an inflation adjustment to the Childcare Grant budget to the 2017 financial planning process.

CARRIED

9.4. Final Instalment of Core Funding Grants 2016

File No. 05.1930 – Grant Sponsorships 2016

MOVED by Councillor MURI

SECONDED by Councillor BASSAM

THAT Council approve the \$511,360 final instalment of the \$818,986 core grant previously approved in the 2016 budget.

Capilano Community Services Society	\$62,462
North Shore Neighbourhood House	\$60,535
Norvan Boys and Girls Club	\$14,850
Parkgate Community Services Society	\$108,636
Hollyburn Family Services Society	\$10,647
 Total Youth	 \$257,130
 Silver Harbour Centre Society	 \$58,187
Family Services of the North Shore	\$35,847
North Shore Childcare Resource and Referral Program	\$37,535
North Shore Restorative Justice Society	\$25,414
Lynn Valley Services Society	\$24,247
Parkgate Community Services Society	\$50,000
Capilano Community Services Society	\$23,000
Total Community	\$254,230
 Total	 \$511,360

CARRIED

9.5. Cates Park / Whey-ah-Wichen Canoe Festival July 8th - 10th, 2016

File No. 5810.01

MOVED by Councillor MURI

SECONDED by Councillor BASSAM

THAT the Parks Control Bylaw # 2733 be relaxed to permit overnight camping in Cates Park Whey-ah-Wichen for the Tsleil Waututh Nation Canoe Festival on July 8th – 10th, 2016.

CARRIED

9.6. Backyard Chickens – A Review of Bylaws from other Municipalities

File No. 10.4900.30/002

MOVED by Mayor WALTON

SECONDED by Councillor MURI

THAT Staff be directed to report back to Council with further information.

CARRIED

Opposed: Councillors MACKAY-DUNN and BASSAM

10. REPORTS

10.1. Mayor

Mayor Walton reported on his attendance at the Canada Day Parade. **Chief**

10.2. Administrative Officer

Nil

10.3. Councillors

10.3.1. Councillor Muri reported on her attendance at the Canada Day Parade.

10.3.2. Councillor Hicks reported on his attendance at the Multi - National Cricket Festival.

10.4. Metro Vancouver Committee Appointees

Nil

11. ANY OTHER BUSINESS

Nil

12. ADJOURNMENT

MOVED by Councillor MURI

SECONDED by Councillor MACKAY DUNN

THAT the July 4, 2016 Regular Meeting of Council for the District of North Vancouver be adjourned.

CARRIED
(8:32 pm)

Mayor

Municipal Clerk

REPORTS

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**Funding Approval for Lynn Valley Road Widening, Safety
Improvements and Bike Lane Project**

Materials to be circulated via agenda addendum.

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AGENDA INFORMATION	
<input checked="" type="checkbox"/> Regular Meeting	Date: <u>Mon. Jul 11/16</u>
<input type="checkbox"/> Other:	Date: _____

 Dept. Manager	 GM/ Director	 CAO
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The District of North Vancouver REPORT TO COUNCIL

June 30, 2016
File: 14.7130.40

AUTHOR: Fiona Dercole
Section Manager, Public Safety

SUBJECT: Building Resilience in Canada

RECOMMENDATION:

THAT Council provide a letter of support to Innovation, Science & Economic Development Canada for the Demonstration Phase of the Building Resilience in Canada program, to be signed by the Mayor.

REASON FOR REPORT:

To request a letter of support from Council to Innovation, Science & Economic Development Canada to advance the proposal for the Demonstration Phase of the Building Resilience in Canada program.

SUMMARY:

Incentive programs for seismic upgrades do not currently exist in Canada. The Building Resilience in Canada (BRIC) program proposes a \$65 billion building infrastructure investment over 25 years, in the form of a 50/50 cost-sharing partnership between building owners and the Federal government. Due to an established commitment to understanding earthquake risk and progressive work to natural hazards resiliency, the District has been invited to participate in the Demonstration Phase of the BRIC program. City of Victoria is the other partner municipality, due to their excellent heritage building retrofit program. The Demonstration Phase would commence in late 2016 and involve sharing lessons learned from the process of upgrading one municipal facility, one commercial building and five first responder homes in each municipality. Technical oversight would be provided by the Association of Professional Engineers and Geoscientists of BC. The District would be responsible for 50% of the cost of the seismic upgrade to one municipal facility that has not yet been selected. Participation in this program would be a significant step forward in completing the tasks outlined in the District's Earthquake Ready Action Plan.

BACKGROUND:

In April 2015, Council received three documents pertaining to earthquake risk in the District:

1. *A Profile of Earthquake Risk for the District of North Vancouver* - a collaborative project with Natural Resources Canada and University of British Columbia detailing earthquake risk and resiliency opportunities. The assessment made a strong case, in regards to both public safety and economics, to invest in mitigation such as seismic retrofits and re-development in vulnerable areas.
2. *When the Ground Shakes* – a plain language companion to the technical study and tells a fictional story of three North Vancouverites and their experiences following the scenario earthquake described in the technical report.
3. *Earthquake Ready Action Plan* – an operational planning document aimed to strengthen the District's resiliency to earthquakes in four key domains – mitigation, preparedness, response and recovery.

EXISTING POLICY:

National Building Code 2015 - the model building code that forms the basis for all of the provincial building codes, and is updated approximately every 5 years. It incorporates seismic design guidelines to ensure public safety for new buildings.

British Columbia Building Code 2012 - applies to the construction of buildings, including extensions, substantial alterations, buildings undergoing a change for occupancy, and upgrading of buildings to remove an unacceptable hazard. It applies the core concepts of the National Building Code, combined with elements specific to BC's unique needs.

DNV Building Bylaw, Schedule O – Application to Existing Buildings – structural analysis must be completed for improvements to existing buildings where the cost of improvements is greater than 200% of the assessed value of the building.

Section 56, Community Charter - authorizes the Chief Building Official (CBO) to require a hazard report from a suitable Qualified Professional where the CBO considers the land is subject to a particular hazard.

2011 Official Community Plan, 9.4 Natural Hazards - The District's objective is to reduce and mitigate the risk associated with natural hazards. Development in areas prone to natural hazards requires special consideration due to concerns for personal safety and risk of property damage as well as potential impacts to natural environments.

Emergency Program Act, Section 2(1), Local Authority Emergency Management Regulation - "A local authority must reflect in the local emergency plan prepared by it under section 6(2) of the Act

(a) the potential emergencies and disasters that could affect all or any part of the jurisdictional area for which the local authority has responsibility, and

(b) the local authority's assessment of the relative risk of occurrence and the potential impact on people and property of the emergencies or disasters."

ANALYSIS:

Since receiving *A Profile of Earthquake Risk for the District of North Vancouver*, much progress has been made in completing or commencing work on the tasks outlined in the *Earthquake Ready Action Plan*. Specific to infrastructure resiliency, seismic risk has been incorporated into the District's asset management plan, five key municipal facilities have been analysed at greater level of detail and post-earthquake assessment procedures have been created for those facilities. Preliminary work has commenced to prioritize District-owned buildings for investment in seismic upgrades based on their vulnerability, criticality and long term plan (replaced or demolished within 10 years). Seismic upgrades typically cost less than half of the replacement cost of a building and other upgrades such as energy retrofits and fire/electrical upgrades can be made concurrently.

The proposed BRIC program is a major national initiative advocating a \$65 billion building infrastructure investment over 25 years, in the form of a 50/50 partnership between building owners and the Federal governments. The District, along with the City of Victoria, has been invited to be a part of the initial Demonstration Phase to demonstrate effective implementation of seismic upgrades for representative building types and highlight the practical and cost-effective advantages of the BRIC program. The Demonstration Phase will include seismic, fire and energy efficiency upgrades to select municipal, commercial and residential buildings in both municipalities over a two year period, totalling \$17 million.

Once the Demonstration Phase is approved, the District will have an opportunity to select one municipal building for upgrade. The building should be a high risk, low-rise building (1-3 storeys) and should have a floor area of no more than 1500 m². Post-earthquake functionality, such as use as a Reception Centre, Group Lodging, Operations Centre or Firehall should be an important consideration. As a key partner in the project, the Association of Professional Engineers and Geoscientists of BC will develop the technical standards. A seismic retrofit design consultant would be selected and APEGBC would establish a peer review process to monitor the project.

Currently in Canada, no incentive programs exist for seismic upgrades. Homeowners and commercial building owners are left to shoulder the cost of these upgrades. A 50/50 cost share program would provide significant incentive for building owners to invest in seismic and energy upgrades to their buildings and increase the overall resiliency of the community. The Demonstration Phase proposes that five first responder homeowners and one commercial building owner in the District are candidates for voluntary upgrades using the 50/50 cost share arrangement, with APEGBC assuming the role of Project Office for the technical standards and delivery activities. The District's role would be raising public awareness about earthquake resiliency and promoting the program.

Timing/Approval Process:

The first step is to obtain Council support from both District of North Vancouver and City of Victoria in the form of a letter of support to Infrastructure Canada for the Demonstration Phase of the BRIC program. If approved, the program could commence as early as late 2016 to select the buildings, with design phase in early 2017, construction in 2017 and project completion in late 2017. The schedule appears fairly ambitious and will need to be revisited once the program is approved.

Concurrence:

Facilities, Fire and Rescue Services, Planning, North Shore Emergency Management and Finance support this proposal to the Federal government.

Financial Impacts:

If the proposal to the Federal government is approved, the District would need to invest 50% of the cost of a seismic upgrade to one of our key facilities. As the building has not yet been selected and a design has not been completed, it is difficult to estimate the financial contributions required but likely in the \$2-3M range. This project would be referred to the 2017 budget planning process.

Liability/Risk:

Following through, over time, on actions outlined in the *Earthquake Ready Action Plan*, reduce any liability associated with earthquake risk for the District.

Social Policy Implications:

By sharing the results of the Profile of Earthquake Risk, making progress in the steps outlined in the Earthquake Ready Action Plan, investing in seismic upgrades of municipal buildings and coordinating the incentive program for privately owned buildings, the District is demonstrating leadership towards community resilience.

Environmental Impact:

The BRIC program provides an incentive for seismic and green energy upgrades to be implemented concurrently.

Conclusion:

The BRIC program provides a significant opportunity for shared responsibility for earthquake resilience. As municipal leaders in natural hazards management, the District's participation in the Demonstration Phase program would assist in promoting the program across the country.

Respectfully submitted,



Fiona Dercole
Section Manager, Public Safety

REVIEWED WITH:

<input type="checkbox"/> Sustainable Community Dev.	_____
<input type="checkbox"/> Development Services	_____
<input type="checkbox"/> Utilities	_____
<input type="checkbox"/> Engineering Operations	_____
<input type="checkbox"/> Parks	_____
<input type="checkbox"/> Environment	_____
<input type="checkbox"/> Facilities	_____
<input type="checkbox"/> Human Resources	_____

<input type="checkbox"/> Clerk's Office	_____
<input type="checkbox"/> Communications	_____
<input type="checkbox"/> Finance	_____
<input type="checkbox"/> Fire Services	_____
<input type="checkbox"/> ITS	_____
<input type="checkbox"/> Solicitor	_____
<input type="checkbox"/> GIS	_____
<input type="checkbox"/> Real Estate	_____

External Agencies:

<input type="checkbox"/> Library Board	_____
<input type="checkbox"/> NS Health	_____
<input type="checkbox"/> RCMP	_____
<input type="checkbox"/> NVRC	_____
<input type="checkbox"/> Museum & Arch.	_____
<input type="checkbox"/> Other:	_____

Attachment 1: Building Resilience in Canada - Demonstration Phase

Submission to: INNOVATION, SCIENCE AND
ECONOMIC DEVELOPMENT CANADA



BUILDING RESILIENCE IN CANADA DEMONSTRATION PHASE



Submitted by: Building Resilience in Canada
Advocacy Group

Demonstration Partners: City of Victoria
District of North Vancouver
First Nations

BUILDING RESILIENCE IN CANADA (BRIC) PREFACE – DEMONSTRATION PHASE

This document is a companion document for the community-based proposal "Building Resilience in Canada Phase A". We refer you to the Phase A document for complete details of the BRIC program.

The purpose of this companion proposal is to demonstrate an effective implementation of building resilient upgrades for the following selected representative building types:

- (a) wood frame housing;
- (b) commercial buildings;
- (c) municipal buildings;
- (d) First Nations housing.

These resilient building upgrades are intended to highlight the advantages of enhanced building resilience in an era of natural hazard extremes. Investment in enhanced building resilience provides a major boost to the local / national economy and mitigates the social and economic hardships in the event of a natural hazard shock. These resilience upgrades are both practical and cost-effective. The BRIC program is founded on award-winning science, technology and innovation. Renewable energy is an important part of the resilience upgrades.

Eighteen (18) low resilience buildings are targeted for upgrading in this proposal. Twelve (12) of these buildings are single family wood frame houses. Wood frame housing constitutes the backbone of Canadian infrastructure (50% of Canada's total infrastructure investment). Refer to the Overview on page (iii) for a graphical summary of the 18 buildings and the associated technical standards for this BRIC phase.

The primary natural hazard driving these resilience upgrades is the seismic hazard. The BRIC program represents an important start to building resilient Canadian communities. A demonstration of the resilience transformation of eighteen buildings will showcase a practical new millennium approach to building technology.

PROVEN PROJECT TEAM

The Demonstration Phase of the Building Resilience in Canada program will be delivered by a proven multi-disciplinary project team of fifteen (15) highly experienced professionals who created and implemented the award-winning applied research and innovation for the British Columbia Ministry of Education \$2.5b Seismic Mitigation Program for K – 12 schools.

BUILDING RESILIENCE IN CANADA (BRIC) OVERVIEW – DEMONSTRATION PHASE

Zero Damage Residential Shelter in North Saanich (BC)

Construction of a North Saanich Residential Shelter That Features the Highest Level of Resilience

High Performance Resilient House in Tofino

Seismic Upgrade and Green Energy for Single Family House in Highest Seismicity Area in Canada (Tofino, Vancouver Island)

Technical Standards and Program Delivery

Implementation of Technical Standards and Program Delivery Procedures for This Phase (Precedent for Phase A)

Ten Resilient First Responder Houses

Seismic Upgrades and Green Energy for Ten (10) First Responder Houses (Five Houses in Victoria and Five Houses in District of North Vancouver)

Two Resilient Commercial Buildings

Seismic / Fire Upgrades and Green Energy for Two (2) Commercial Buildings (One Building in Victoria and One Building in District of North Vancouver)

Two Resilient First Nations Houses

Seismic / Fire Upgrades and Green Energy for Two (2) British Columbia First Nations Houses

Two Resilient Municipal Buildings

Seismic Upgrades and Green Energy for Two (2) Municipal Buildings (One Building in Victoria and One Building in District of North Vancouver)

BUILDING RESILIENCE IN CANADA

SCOPE OF WORK – DEMONSTRATION PHASE

Scope of Work

The overall proposed scope of work for the Demonstration Phase of the Building Resilience in Canada (BRIC) program is detailed in Table 3.1.

Demonstration Objective

The objective of the Demonstration Phase is to highlight the resilience features of the BRIC program by the retrofit construction of a small number of selected representative buildings.

Resilience Design Details

Resilience design details for the buildings listed in Table 3.1 are as follows:

Zero Damage Shelter: This small building is designed to serve as an emergency residential shelter after the main shock. This shelter has the highest level of seismic resilience in the BRIC program. This small residential building is designed to be green-tagged for all but the most extreme ground motion, ground motion that far exceeds that given in the new 2015 National Building Code of Canada (2015NBCC).

High Performance Resilient House: This house is located in the highest seismic region in Canada (Tofino), as defined by 2015NBCC. The objective of this upgrade is to demonstrate that resilient house retrofits are practical, even in the highest seismic hazard area in Canada. The house will be designed to be resilient for the maximum probable earthquake based on 2015NBCC (ground motion with a 5% probability of exceedance in 50 years). A renewable energy upgrade is included in this work.

Technical Standards and Program Delivery: The technical standards for all retrofit construction in the Demonstration Phase are to be based on adaptation of the Seismic Retrofit Guidelines Third Edition (SRG3) developed for the seismic upgrading of provincial school buildings. Program delivery for these demonstration projects is a streamlined version of the Phase A delivery structure (refer to page 4).

Resilient First Responder Houses: These single family houses will be upgraded to be green-tagged in a maximum probable earthquake (refer to high performance resilient house). The objective of this upgrade is to maximize the number of first responders reporting to work immediately following the main shock. Renewable energy upgrades are included in this work.

Resilient First Nations Houses: These houses will be new houses that incorporate the seismic and green energy features of the first responder house retrofits. Fire resiliency will be included, where applicable.

Resilient Commercial and Municipal Buildings: These buildings will enhance their resilience through seismic, fire and electric upgrades. The post-earthquake function of the two municipal buildings will be considered in the resilience design.

Building Addresses

The selection of the specific buildings for inclusion in the Demonstration Phase will be made at the start of the project.

BUILDING RESILIENCE IN CANADA SCOPE OF WORK – DEMONSTRATION PHASE

Table 3.1: Scope of Work for Demonstration Phase Building Resilience in Canada Program	
Type of Building	Scope of Resilience Work
Zero Damage Shelter	Design 40 m ² one storey wood frame / concrete shelter Design for low damage in maximum credible event Small building designed to act as emergency shelter Shelter to include water and emergency supplies High energy efficiency (roof solar panels) Design proceeds to construction
High Performance Resilient House	Seismic retrofit of two storey single family house in Tofino Design for highest seismicity in Canada Design to be resilient for maximum probable event Design to be safe for the maximum credible event Energy efficiency upgrade (roof solar panels) Retrofit design proceeds to construction
Technical Standards Program Delivery	Establish technical standards for demonstration projects Establish application procedures for commercial buildings Establish design / construction reporting procedures Establish peer review procedures Implement above procedures for demonstration projects
Ten (10) Resilient First Responder Houses	Design retrofit of ten (10) first responder houses Design to be resilient for maximum probable event Design to be safe for maximum credible event Energy efficiency upgrades (roof solar panels) Retrofit designs proceed to construction
Two (2) Resilient Commercial Buildings	Process applications and select two buildings Seismic, fire and energy efficiency upgrades Design to be resilient for maximum probable event Design to be safe for maximum credible event Retrofit designs proceed to construction
Two (2) Resilient First Nations Houses	Preliminary design for seismic / energy upgrades Incorporate applicable fire / flood mitigation measures Collaborate with First Nations to finalize design Design to be resilient for maximum probable event Design to be safe for maximum credible event Designs proceed to construction for two new houses
Two (2) Resilient Municipal Buildings	Establish post-earthquake response role for buildings Design early warning and instrumentation for buildings Design seismic, fire and energy efficiency upgrades Design to be resilient for maximum probable event Design to be safe for maximum credible event Retrofit designs proceed to construction

BUILDING RESILIENCE IN CANADA BUDGET – DEMONSTRATION PHASE

Budget

The Demonstration Phase budget is given in Table 5.1. This budget is primarily a capital budget with one item for the operating budget.

Project Office

In recognition of the short schedule and limited budget for the Demonstration Phase, it is proposed that the Association of Professional Engineers and Geoscientists of British Columbia (APEGBC) assume the role of Project Office for the operational activities (technical standards and delivery) in the Demonstration Phase.

Financial Incentives

All financial incentives will pass directly from the Federal Government to private building owners and to municipal governments for municipal building upgrades.

Construction Budget Details

Federal Government contributions, detailed in Table 5.1, are as follows:

Zero Damage Shelter: The Federal Government contribution for this work is 50% of the contractor's construction cost (professional services excluded – construction assumed to be 67% of the total capital budget).

High Performance Resilient House: The Federal Government contribution for this work is 50% of the seismic upgrade / green energy portion of the work.

Ten Resilient First Responder Houses: The same Federal Government contribution is proposed as for the high performance resilient house.

Two Resilient Commercial Buildings: The Federal Government contribution for this work is 50% of the total capital cost for seismic, fire and electrical upgrading.

Two Resilient Municipal Buildings: The same Federal Government contribution is proposed as for the two resilient commercial buildings.

Program Delivery

The proposed program delivery structure is similar to that for Phase A of the Building Resilience in Canada program (refer to Phase A page 25). The only difference for the Demonstration Phase is APEGBC assuming the function of the Project Office as noted above.

PROPOSED DEMONSTRATION PHASE FUNDING

The Government of Canada will (a) match dollar for dollar the investment by building owners in building resilience upgrades and (b) provide 100% of the First Nations housing, technical standards and delivery budgets, as detailed in Table 5.1.

BUILDING RESILIENCE IN CANADA BUDGET – DEMONSTRATION PHASE

**Table 5.1: Budget – Demonstration Phase
Building Resilience in Canada Program
(\$millions)**

No.	Type of Building	Quantity	Unit Cost	Total Cost	Federal Budget
1	Zero Damage Shelter (North Saanich)	40 m ²	\$3000/m ²	\$0.12m	\$0.04m
2	High Performance Resilient House (Tofino)	200 m ²	\$400/m ²	\$0.08m	\$0.04m
3	Technical Standards and Program Delivery	–	–	\$0.7m	\$0.7 m
4	10 Resilient First Responder Houses	2200 m ²	\$350/m ²	\$0.77m	\$0.39m
5	Two Resilient Commercial Buildings	4000 m ²	\$2000/m ²	\$8.0m	\$4.0m
6	Two Resilient First Nations Houses	400 m ²	\$2500/m ²	\$1.0m	\$1.0m
7	Two Resilient Municipal Buildings	3000 m ²	\$2000/m ²	\$6.0m	\$3.0m
TOTAL BUDGET – DEMONSTRATION PHASE				\$16.67m	\$9.17m

BUILDING RESILIENCE IN CANADA SCHEDULE AND DELIVERABLES DEMONSTRATION PHASE

Schedule

The schedule for the Demonstration Phase is given in Table 6.1. A brief description of several aspects of the Demonstration Phase schedule is as follows:

Start – Demonstration Phase: The proposed start date for the Demonstration Phase is October, 2016. This start date has been chosen to complement the Phase A program that has a completion date of December, 2018.

Design: The design for all demonstration projects will be completed by March, 2017. The retrofit design for several first responder houses will be completed in 2016.

Start – Phase A: The proposed start date for Phase A is May, 2017. The Demonstration Phase provides a head start for Phase A. A Phase A start in May, 2017 preserves the Phase A completion date of December, 2018.

Construction Completion: All retrofit construction will be completed in 2017.

Deliverables

The deliverables for the Demonstration Phase are given in Table 7.1. A brief description of several deliverable issues is as follows:

Resilient Retrofit Concept Report: APEGBC will issue standardized reporting formats for these reports. All reports will be reviewed by APEGBC.

Technical Standards: APEGBC will develop performance-based technical standards for all demonstration projects. APEGBC will utilize the Association's Technical Review Board (TRB) to provide collaborative technical assistance on complex technical issues.

Construction Package: All demonstration project designs will generate a construction package of design drawings and specifications (where separate specifications are required).

Completion Report: All demonstration projects will have a completion report that will provide valuable guidance for future similar work in Phase A.

Table 6.1: Schedule – Demonstration Phase Building Resilience in Canada Program		
No.	Resilience Construction	Completion Date
1	START – DEMONSTRATION PHASE	Oct 2016
2	Municipal and Commercial Building Upgrade Design	Feb 2017
3	First Nations Housing Design	Mar 2017
4	Housing Retrofit Construction (12 Houses)	May 2017
5	START – PHASE A	May 2017
6	First Nations Housing Construction	Sep 2017
7	Municipal and Commercial Building Upgrade Construction	Dec 2017

BUILDING RESILIENCE IN CANADA SCHEDULE AND DELIVERABLES DEMONSTRATION PHASE

Table 7.1: Deliverables – Demonstration Phase Building Resilience in Canada Program		
Work Program	Report No.	Demonstration Phase Deliverable
Zero Damage Shelter	D1.1	Project Planning Report
	D1.2	Issued for Construction Package
	D1.3	Project Completion Report
High Performance Resilient House	D2.1	Resilient Retrofit Concept Report
	D2.2	Issued for Construction Package
	D2.3	Project Completion Report
Technical Standards Program Delivery	D3.1	Technical Standards for Demonstration Projects
	D3.2	Commercial Building Application Procedures
	D3.3	LDO Reporting and Peer Review Procedures
	D3.4	Demonstration Projects Review Reports
Ten Resilient First Responder Houses	D4.1	Resilient Retrofit Concept Reports
	D4.2	Issued for Construction Package for Each House
	D4.3	Project Completion Report for 10 Houses
Two Resilient Commercial Buildings	D5.1	Resilient Retrofit Concept Reports
	D5.2	Issued for Construction Package for Each Building
	D5.3	Project Completion Report for Each Building
Two Resilient First Nations Houses	D6.1	Project Planning Report
	D6.2	Issued for Construction Package for Each House
	D6.3	Project Completion Report for Both Houses
Two Resilient Municipal Buildings	D7.1	Resilient Retrofit Concept Reports
	D7.2	Issued for Construction Package for Each Building
	D7.3	Project Completion Report for Each Building



Photo: DNV First Responder House



Photo: DNV Karen Magnussen Recreation Centre Arena

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Revised Spirit Trail Alignment – Central Section

Materials to be circulated via agenda addendum.

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AGENDA INFORMATION	
<input type="checkbox"/> Regular Meeting	Date: _____
<input checked="" type="checkbox"/> Workshop	Date: July 4, 2016

Dept.
Manager

DM

GM/
Director

[Signature]

CAO

The District of North Vancouver Memo

June 27, 2016

TO: Mayor and Council

FROM: Dan Milburn, Acting General Manager, Planning, Properties & Permits

SUBJECT: July 2016 Town Centre Update and Early Input Opportunity

At the regular town centre update on July 4th, staff intend to present information on development activity in the town centres in the first half of 2016. Following the format from the presentation of February 1st, staff will provide statistics on permits issued to date and the milestones reached on major developments.

Staff also have started to collect "purchaser data" for occupied residential, multi-family projects within the various District of North Vancouver town and village centres. The preliminary results, although incomplete, provide some strong anecdotal evidence of the types of purchasers who are acquiring residential multi-family properties. Staff will present the preliminary results from this research as well.

Finally, staff will provide information on the Main-Marine Frequent Transit Corridor Study which has been initiated in partnership with TransLink, Metro Vancouver, Province of BC, City of North Vancouver, District of West Vancouver, Squamish First Nation, and District of North Vancouver.

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Dan Milburn
Acting General Manager, Planning, Properties, and Permits

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