

Mino, Lise MTIC:EX

From: Cavelti, John EDUC:EX
Sent: Monday, December 22, 2014 11:08 AM
To: Mark De Mello (mdemello@sd38.bc.ca)
Cc: Palmer, Joel EDUC:EX; Chambers, Phillip R EDUC:EX
Subject: Gilmore


Good morning Mark,

I am just following up on our telephone call two weeks ago about the currently supported seismic remediation project at James Gilmore Elementary. As this project will likely be delayed until your District's Long Range Facilities Plan is completed, we had discussed looking for another school that may be a better candidate to proceed more quickly.

I was wondering if you have had an opportunity to discuss this issue internally and if any other school would be brought forward in the short term for seismic remediation?

Many thanks and all the best for the holiday season,

John Cavelti
Planning Officer
Ministry of Education

Box 9151 Stn Prov Govt,
Victoria, BC V8W 9H1
Cell: 
Fax: (250) 953-4985
E-mail: John.Cavelti@gov.bc.ca

Mino, Lise MTIC:EX

From: Palmer, Joel EDUC:EX
Sent: Tuesday, December 16, 2014 10:50 AM
To: Cambridge, Janice EDUC:EX
Cc: MacDonald, Maureen R EDUC:EX
Subject: FW: Letter from Minister Peter Fassbender
Attachments: 174049 Sargent outgoing.pdf

Here's a SD38 letter that mentions James Gilmore

Joel Palmer

s.17

From: Minister, EDUC EDUC:EX
Sent: Friday, July 4, 2014 12:33 PM
To: 'DSargent@sd38.bc.ca'
Cc: Palmer, Joel EDUC:EX
Subject: Letter from Minister Peter Fassbender

Please find attached a letter from the Minister of Education.



July 4, 2014

Ref: 174049

Donna Sargent, Chair
Board of Education
School District No. 38 (Richmond)
7811 Granville Ave
Richmond BC V6Y 3E3
Email: dsargent@sd38.bc.ca

Dear Ms. Sargent:

Thank you for your letter of April, 22, 2014, regarding a recent directive that school districts across the province be required to share in the costs of major capital projects. Please accept my apologies for the delayed response.

As you may be aware, Budget 2014 made a firm commitment to balancing the provincial budget, which requires careful debt-to-GDP management to maintain BC's valuable triple-A credit rating. Where possible, government is trying to reduce the amount of borrowing required to fund capital projects and at the same time make progress toward the long-term goal of gradually reducing cash balances held by public agencies. For school districts, this involves contributing available local funds to the cost of major capital projects that are priorities for both government and school districts.

Ministry of Education and school district staff are meeting on a project-by-project basis to determine the level of local funding that a district can bring to these priority projects. School district cash balances are reviewed to ensure that districts are able to proceed with any planned projects, as well as meet any existing obligations.

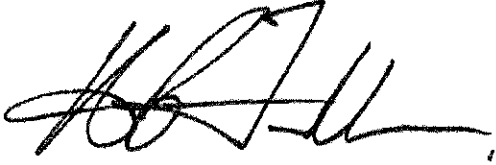
Your District currently has supported capital projects at Henry Anderson Elementary and at James Gilmore Elementary. When you have completed the Project Definition Reports, please have your staff work with Ministry staff to determine the amount of local funding that your School District may have available to help fund these projects, which are priorities for both government and for your Board.

I also recognize the need for additional seismic projects in the Richmond School District as a result of recent assessments by APEGBC. Ministry staff will continue to work closely with your district to ensure these projects are added to the Seismic Mitigation Program.

... /2

On behalf of the Province, thank you for your Board's efforts in support of Richmond's students.

Sincerely,

A handwritten signature in black ink, appearing to read 'Peter Fassbender', with a stylized, cursive script.

Peter Fassbender
Minister

pc: Joel Palmer, Executive Director, Capital Management Branch

Mino, Lise MTIC:EX

From: Cavelti, John EDUC:EX
Sent: Wednesday, December 3, 2014 8:07 AM
To: Russ Sales
Cc: XT:Frank, Greg FIN:IN; Palmer, Joel EDUC:EX; Chambers, Phillip R EDUC:EX
Subject: Re: Alpha & Montecito

Russ,

Thanks for getting back to me.
tomorrow, would you be available Friday morning to go over them with me?

2

If I get the drafts for review

Thanks,

John Cavelti
Sent from my iPhone

On Dec 2, 2014, at 5:03 PM, Russ Sales <Russ.Sales@sd41.bc.ca> wrote:

John

I have just received Montecito with the changes and can send you a copy before I read it one more time if you would like as it is still Draft only.

Alpha will be ready Thursday for forwarding for your review as a draft only.

I think that we have been able to address the budget issues as we discussed in each of the drafts I will be forwarding to you I could give you a call and go over where we are or maybe it would be better once you have the draft in hand that we discuss any issues arising.

Thanks

Russ Sales

Director of Facilities Services

School District 41 (Burnaby)

5325 Kincaid Street

Burnaby, BC V5G 1W2

604-296-6900 ext. 661058

russ.sales@sd41.bc.ca

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From: Cavelti, John EDUC:EX [<mailto:John.Cavelti@gov.bc.ca>]

Sent: December-02-14 3:58 PM

To: Russ Sales

Cc: Greg Frank; Palmer, Joel EDUC:EX; Chambers, Phillip R EDUC:EX

Subject: RE: Alpha & Montecito

Russ,

As per my earlier email, is it possible to get an update on the PDRs Alpha and Montecito?

Many thanks,

John Cavelti
Planning Officer
Ministry of Education

Box 9151 Stn Prov Govt,
Victoria, BC V8W 9H1
Cell: s.17
Fax: (250) 953-4985
E-mail: John.Cavelti@gov.bc.ca

From: Cavelti, John EDUC:EX
Sent: Wednesday, November 26, 2014 3:47 PM
To: 'Russ Sales'
Subject: Alpha & Montecito
Importance: High

Russ,

I hope all is well.

Since our call on October 27th I haven't seen anything on either Alpha or Montecito except for a summary for Alpha from Carson. I want to keep these projects moving and am wondering when the next draft of the PDR is due? While we are waiting for the next document it might be a good idea to work through the budget to address the questions I had during our phone call.

Thanks,

John Cavelti
Planning Officer
Ministry of Education

Box 9151 Stn Prov Govt,
Victoria, BC V8W 9H1
Cell: s.17
Fax: (250) 953-4985
E-mail: John.Cavelti@gov.bc.ca


Mino, Lise MTIC:EX

From: Cavelti, John EDUC:EX
Sent: Friday, November 28, 2014 11:33 AM
To: 'Mark De Mello'
Subject: RE: Fwd: Gilmore

Mark,

Thanks of the update.

John Cavelti
Planning Officer
Ministry of Education

Box 9151 Stn Prov Govt,
Victoria, BC V8W 9H1
Cell: 
Fax: (250) 953-4985
E-mail: John.Cavelti@gov.bc.ca

From: Mark De Mello [<mailto:mdemello@sd38.bc.ca>]
Sent: Friday, November 28, 2014 11:27 AM
To: Cavelti, John EDUC:EX
Cc: Mike Beausoleil; Zul Helal; Clive Mason
Subject: Re: Fwd: Gilmore

Hi John,

I've had a chat with Joel about this, and indicated that we will move on it after the LRFP is done. My original estimate was fall 2015, but the recent election has seen us with four new trustees, so I suspect that the process will be delayed even further. However, if it is possible to advance the project so that we are not waiting for the LRFP completion, we will make every effort to do so.

Mark

----- Original Message -----

From: "Cavelti, John EDUC:EX" <John.Cavelti@gov.bc.ca> Nov-27-14 1:37:58 PM
Subject: Gilmore
To: Zul Helal View in Browser
Cc: "Chambers, Phillip R EDUC:EX" <Phillip.Chambers@gov.bc.ca>

Zul,

Is there any update on the Gilmore PDR or is this project awaiting the completion of the Long Range Facility Plan? Either way is there an estimated date for a draft PDR?

Many thanks,

John Cavelli
Planning Officer
Ministry of Education
Box 9151 Stn Prov Govt,
Victoria, BC V8W 9H1
Cell: _____
Fax: (250) 955-4985
E-mail John.Cavelli@gov.bc.ca

Mino, Lise MTIC:EX

From: Chambers, Phillip R EDUC:EX
Sent: Monday, December 1, 2014 11:15 AM
To: Cavelti, John EDUC:EX; Palmer, Joel EDUC:EX
Subject: RE: Fwd: Gilmore

We did talk about this a bit last week ... as they have been working on their LTFP for probably a year now, can we ask if they can at least say with some confidence that Gilmore will be part of their future planning, or not? If it is, I can't see why they can't just get on with the project.

PHILLIP CHAMBERS

Regional Director &
Director Responsible for the Seismic Mitigation Program
Capital Management Branch
Ministry of Education


  ¹⁷
phillip.chambers@gov.bc.ca

From: Cavelti, John EDUC:EX
Sent: Friday, November 28, 2014 11:31 AM
To: Palmer, Joel EDUC:EX; Chambers, Phillip R EDUC:EX
Subject: FW: Fwd: Gilmore

Joel, Phil,

Somewhat concerned that we will see no movement on Gilmore for at least a year. This would indicate that we also can't try to get any of their other 20 seismic projects moving in the short term.

John Cavelti
Planning Officer
Ministry of Education

Box 9151 Stn Prov Govt,
Victoria, BC V8W 9H1
Cell: 
Fax: (250) 953-4985
E-mail John.Cavelti@gov.bc.ca

From: Mark De Mello [<mailto:mdemello@sd38.bc.ca>]
Sent: Friday, November 28, 2014 11:27 AM
To: Cavelti, John EDUC:EX

Cc: Mike Beausoleil; Zul Helal; Clive Mason

Subject: Re: Fwd: Gilmore

Hi John,

I've had a chat with Joel about this, and indicated that we will move on it after the LRFP is done. My original estimate was fall 2015, but the recent election has seen us with four new trustees, so I suspect that the process will be delayed even further. However, if it is possible to advance the project so that we are not waiting for the LRFP completion, we will make every effort to do so.

Mark

----- Original Message -----

From: "Cavelti, John EDUC:EX" <John.Cavelti@gov.bc.ca> Nov-27-14 1:37:58 PM

Subject: Gilmore

To: Zul Helal View in Browser

Cc: "Chambers, Phillip R EDUC:EX" <Phillip.Chambers@gov.bc.ca>

Zul,

Is there any update on the Gilmore PDR or is this project awaiting the completion of the Long Range Facility Plan? Either way is there an estimated date for a draft PDR?

Many thanks,

John Cavelti

Planning Officer

Ministry of Education

Box 9151 Stn Prov Govt,

Victoria, BC V8W 9H1

Cell:

Fax: (250) 953-4985

E-mail: John.Cavelti@gov.bc.ca

Mino, Lise MTIC:EX

From: Zul Helal <zhelal@sd38.bc.ca>
Sent: Friday, November 28, 2014 8:34 AM
To: Cavelti, John EDUC:EX
Cc: Chambers, Phillip R EDUC:EX
Subject: Re: Gilmore

John,
It is waiting for the LFRP. I will get back you on the estimated date.

Sincerely,

Zul Helal, Architect AIBC, PMP, LEED AP
Facilities Project Manager
School District No. 38 (Richmond)
W: 604.668.7800



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"Cavelti, John EDUC:EX" <John.Cavelti@gov.bc.ca> on November-27-14 at 1:37 PM -0800 wrote:

Zul,

Is there any update on the Gilmore PDR or is this project awaiting the completion of the Long Range Facility Plan? Either way is there an estimated date for a draft PDR?

Many thanks,

John Cavelti

Planning Officer

Ministry of Education

Box 9151 Stn Prov Govt,

Victoria, BC V8W 9H1

Cell:

Fax: (250) 952-4985

E-mail John.Cavelti@gov.bc.ca

Mino, Lise MTIC:EX


From: Cavelti, John EDUC:EX
Sent: Monday, October 27, 2014 1:22 PM
To: 'Russ Sales'
Subject: Alpha and Montecito PDRs
Attachments: As part of the Province.docx

Russ,

As discussed, here are the paragraphs that Phil would like to have added to each PDR summary. You will notice, that I have provided one for each school as they were supported in different years.

Thanks again for your time today,

John Cavelti
Planning Officer
Ministry of Education

Box 9151 Stn Prov Govt,
Victoria, BC V8W 9H1
Cell: 
Fax: (250) 953-4985
E-mail: John.Cavelti@gov.bc.ca

As part of the Province's Seismic Mitigation Program, Alpha Secondary was assessed as having high seismic structural risk to three of the school's six blocks. As the risk for one block was "High 1" (the highest risk rating), the Province included this school in the group of forty five projects supported to proceed to design and construction in 2012.

As part of the Province's Seismic Mitigation Program, Montecito Elementary was assessed as having high seismic structural risk to three of the school's six blocks. As the risk for one block was "High 1" (the highest risk rating), the Province included this school in the group of forty five projects supported to proceed to design and construction in 2013.

Mino, Lise MTIC:EX

From: Cavelti, John EDUC:EX
Sent: Thursday, October 23, 2014 11:54 AM
To: Palmer, Joel EDUC:EX
Cc: Chambers, Phillip R EDUC:EX
Subject: Re: QP

Russ not available today will be discussing PDRs on Monday

John Cavelti
Sent from my iPhone

On Oct 23, 2014, at 11:49 AM, "Cavelti, John EDUC:EX" <John.Cavelti@gov.bc.ca> wrote:

Montecito just rec'd PDR, will be discussing with district today or early next week. Has been entirely with district until a week or so ago.

Surrey presume reassessments reduced need to seismically upgrade. Two schools being added back onto list (sorry I forget which ones)

John Cavelti
Sent from my iPhone

On Oct 23, 2014, at 11:27 AM, "Palmer, Joel EDUC:EX" <Joel.Palmer@gov.bc.ca> wrote:

Some quick answers for these please. I know some of them are obvious, esp Montecito and Surrey.

Thanks

Joel

Seismic Upgrading

- When is Premier going to do as she promised to make schools safe for our kids?
- Announced five different timelines for this program. Delays are costing our schools and districts every year. Six schools from 2003 list haven't been upgraded yet. How many years will BC kids have to go to schools that won't withstand a major earthquake?
- Would the Premier please explain when Burnaby will see the promised construction to take place on Montecito (sp?) school?
- Three Surrey schools were promised upgrades 11 years ago and nothing has happened. How can anyone trust premier when she says anything.

Joel Palmer | Executive Director | Capital Management Branch | Ministry of Education

Phone: s.17 | email: Joel.Palmer@gov.bc.ca

Mino, Lise MTIC:EX

From: Cavelti, John EDUC:EX
Sent: Thursday, October 23, 2014 7:44 AM
To: Russ Sales
Subject: PDRs

Russ,

I would like to go through the documents with you if that is possible, are you available to discuss the PDRs this afternoon?

I am available from 1 – 3 today, if not today it would have to be early next week.

Let me know what works for you and I will give you a call, thanks.

John Cavelti
Planning Officer
Ministry of Education

Box 9151 Stn Prov Govt,
Victoria, BC V8W 9H1
Cell: 250-953-4985
Fax: (250) 953-4985
E-mail John.Cavelti@gov.bc.ca

Mino, Lise MTIC:EX

From: Hugh Skinner <Hugh.Skinner@ghma.com>
Sent: Thursday, April 17, 2014 1:16 PM
To: Carson Goerz
Cc: Mark Mathiasen; Cavelti, John EDUC:EX; Chambers, Phillip R EDUC:EX
Subject: FW: SPIR Summary Pages
Attachments: SPIR SD41 Burnaby North Block6 FINAL March 2014.pdf

Carson,

Re: Alpha Secondary PDR. Email below F.Y.I.


The newer SPIRs (example attached from Burnaby North) have the one (1) page summary that Philip Chambers is referring to in his email below. The older SPIRs don't have the same one (1) page summary. John Cavelti should be able to provide you with some guidance on what is the key information that he is looking for from the older SPIRs.

All the best,

Hugh

Hugh Skinner CEFP
Director of Planning Services



Email: hugh.skinner@ghma.com
Direct Line / 
Web: www.ghma.com



From: Chambers, Phillip R EDUC:EX [<mailto:Phillip.Chambers@gov.bc.ca>]
Sent: Wednesday, April 16, 2014 11:50 AM
To: 'Russell Horswill' (russell.horswill@sd71.bc.ca); Hugh Skinner; Mark Mathiasen; 'Ian Heselgrave' (ian.heselgrave@sd71.bc.ca)
Cc: Kane, Kathleen EDUC:EX
Subject: SPIR Summary Pages

One last thought I failed to mention for your PDR, we now have SPIR summary pages that can be attached to the report. This makes the PDR's much more concise, and means we don't have to wade through the much longer full SPIR's.

PHILLIP CHAMBERS

Regional Manager &

Manager Responsible for the Seismic Mitigation Program

Capital Management Branch

Ministry of Education



s.17



phillip.chambers@gov.bc.ca

Seismic Project Identification Report

REPORT NO. SPIR-41-013

for

BLOCK #02-6 (Classrooms/Admin)

BURNABY NORTH SECONDARY SCHOOL

**751 Hammarskjold Drive
Burnaby, BC
V5B 4A1**

Facility No: 4141002

**School District No. 41
Burnaby School District**

**Structural Engineering Guidelines for the
Performance-based Seismic Assessment and Retrofit of
Low-rise British Columbia School**

The Seismic Project Identification Report (SPIR) is a new report format that documents the seismic retrofit concepts proposed for a high risk school block.

The Ministry of Education (Ministry) requires that a School District submit an SPIR for any school block as the first step in the District's request for seismic retrofit funding.

APEGBC, as the Ministry's technical advisor for the Seismic Mitigation Program, was requested by the Ministry to develop the format and technical requirements for the SPIR.

SPIRs are due diligence documents that are designed to present seismic upgrading options to assist seismic safety planning by both the School District and the Ministry. The expectation is that SPIR information will guide the seismic upgrading of school blocks in a safe and cost-effective manner.

Ongoing feedback from engineering practitioners is encouraged to advance future refinements in the format for the SPIR document.

No.	Deliverable Description	Update Details
1	School Name and School District	<ul style="list-style-type: none"> Burnaby North Secondary SD 41 (Burnaby)
2	Block No. / Name	<ul style="list-style-type: none"> Block #02-6 Classrooms/Administration
3	Floor Area Guide	<ul style="list-style-type: none"> 2740 m²
4	Year and Type of Construction	<ul style="list-style-type: none"> 1955, 68, 71, 76, 87 1 storey Unreinforced Masonry Concrete Block Timber Roof
5	Soil Type	<ul style="list-style-type: none"> Site Class C
6	Risk	<ul style="list-style-type: none"> H1
7	Life Safety Retrofit Features	<ul style="list-style-type: none"> Vertically reinforce existing masonry walls Diaphragm upgrades New R/Mas lateral elements New steel posts and girts FRP to enhance shear capacity of some existing masonry walls
8	Phased Retrofit Features	<ul style="list-style-type: none"> Similar scope to Life-safety but less new R/Mas and FRP, and some load bearing URM walls left unreinforced.
9	Enhanced Performance Retrofit Features	<ul style="list-style-type: none"> Not Applicable
10	Schedule	<ul style="list-style-type: none"> 14 months (2 summers and one school year)
11	Construction Risks	<ul style="list-style-type: none"> HAZMAT
12	Cost Estimates	<ul style="list-style-type: none"> \$4,147,580 (\$1514/m²) for life safety retrofit \$3,835,024 (\$1400/m²) for phased retrofit
13	PDR Requirements	<ul style="list-style-type: none"> HAZMAT testing

(Professional Seal and Signature)

Date

CHAPTER	Section Title	Page
	PREFACE	(ii)
1.0	BLOCK PHOTOGRAPHS	1-1
2.0	KEY PLAN AND ADJACENCY	2-1
3.0	BASIC EXISTING BLOCK DATA	3-1
4.0	PRINCIPAL ELEMENTS OF EXISTING BLOCK	
	Vertical Load-bearing Supports (VLS)	4-1
	LDRSs	4-1
	Out-of-Plane URM Walls	4-2
	Roof Diaphragm	4-2
	Floor Diaphragm	4-3
	Connections	4-3
5.0	RETROFIT PRIORITY RANKING FOR EXISTING BLOCK	5-1
6.0	RETROFIT OVERVIEW	6-1
7.0	LIFE SAFETY RETROFIT	
	Retrofit Concept	7-1
	Retrofit LDRSs	7-3
	SPIR Benchmarks	7-3
	Scope of Retrofit	7-3
	Retrofit Cost Estimate	7-3
	Schedule	7-4
	Construction Risks	7-4
8.0	PHASED RETROFIT	8-1
10.0	RETROFIT SUMMARY	10-1
	APPENDIX A: SCOPE OF RETROFIT DETAILS	A-1
	APPENDIX B: RETROFIT COST ESTIMATE REPORT	B-1
	APPENDIX C: REPRESENTATIVE STRUCTURAL DETAILS	C-1
	APPENDIX D: PHOTOGRAPHS	D-1

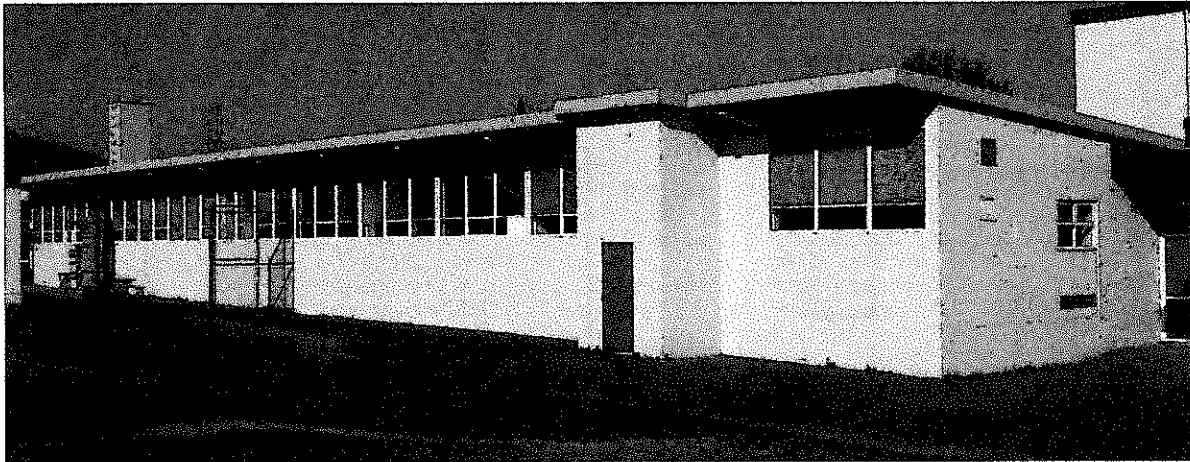


Figure 1.1: West Elevation of Main Block

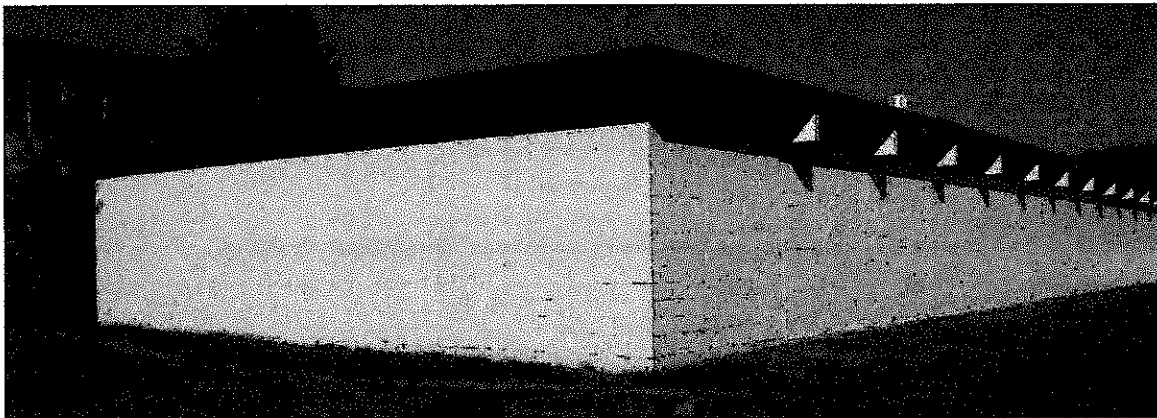


Figure 1.2: South Elevation of West Building



Figure 1.3: North Elevation of Library Addition

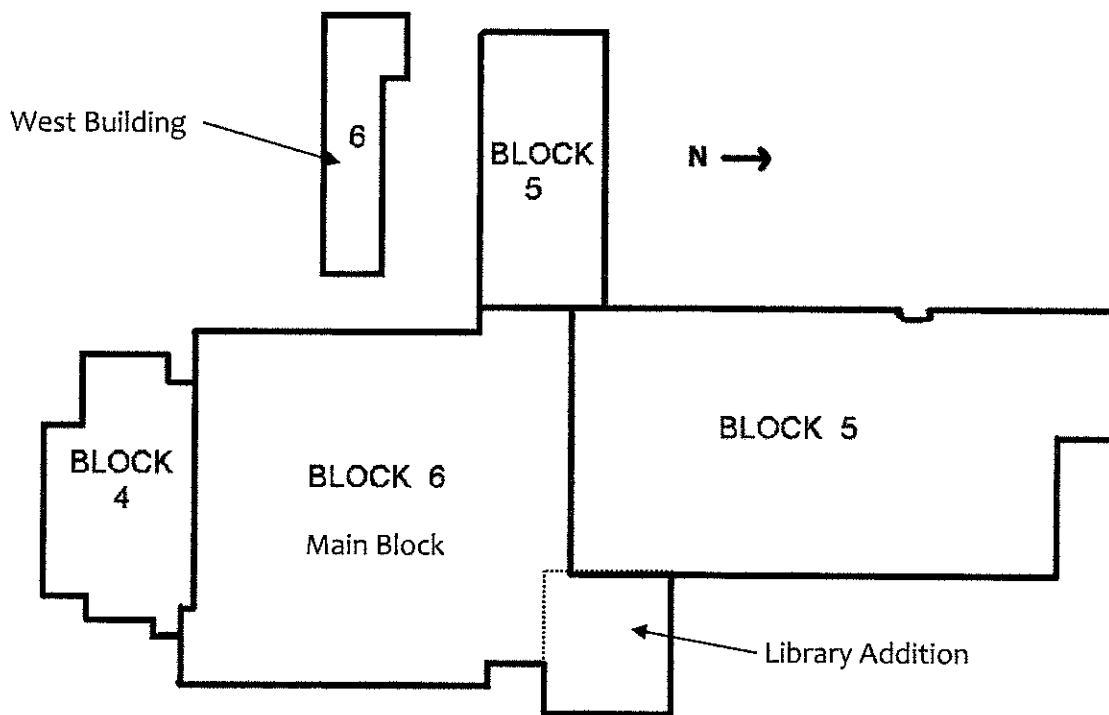


Figure 2.1: Key Plan for Burnaby North (South "Kensington" Building)

Identification of Retrofit Block (Box #2-1)

Block #6: Classrooms/Administration

Adjacency (Box #2-2)

- ☐ No Significant Adjacency Issues
- ☒ Significant Adjacency Issues

Adjacency Comments (Box #2-3)

This block is built integrally with the adjacent block 4. Despite the difference in storey height between the main stage structure and the adjacent lower areas in block 4, there are no significant issues. Form of construction is similar and anticipated storey drifts will also be similar. No Vertical Load Bearing elements appear to be threatened. Adjacency to Block 5 is a problem along the South edge of Block 5. The storey heights, construction materials and drifts will be different. A seismic gap is recommended

School District (Box #3-1)

Burnaby (SD 41)

Block Name (Box #3-2)

Classrooms/Administration

Structural Firm (Box #3-3)

Bush, Bohlman & Partners
John A Wallace Engineering Ltd.

Engineer-of-Record (Box #3-4)

Tim White, Ph.D., P.Eng.
John Wallace, P.Eng., Struct.Eng.

Years of Construction (Box #3-5)

1955, 68, 71, 76, 87

Floor Area (Box #3-6)2740 m²**Construction Type (Box #3-7)**

#31 (URM Classrooms with wood roof)

Site Classification (Box #3-8)

Site Class C

Comments on Construction Type (Box #3-9)

Majority of the block has shiplap on joists supported by URM on concrete foundation walls with strip footings. Some areas are T&G on glulam supported by steel columns. Most areas slab on grade with some areas of crawl space with suspended concrete slab over. Library is metal deck on OWSJ spanning to concrete beams. R/C beams supported by a combination of load bearing giant brick and concrete columns on strip and pad footings respectively. East building has ply on wood joists on glulams supported by load bearing unreinforced masonry. One small addition to the East Building has reinforced masonry walls. Both Library and East building floors are slab on grade.

Number of Storeys (Box #3-10)

1

Clear Storey Heights (Box #3-11)

3.6 m (Shops, Library and Boiler Room)
2.8 m (Hallways, Admin and Changerooms)
3.2m (Classrooms and East Building)
4.2m (Cafeteria)

Previous Seismic Upgrade (Box #3-12)

<input checked="checked" type="checkbox"/>	No
<input type="checkbox"/>	Yes

Previous Seismic Upgrade Details (Box #3-13)

--

(1) Vertical Load-bearing Supports (VLS)**VLS Type (Box #4-1)**

Unreinforced concrete block
masonry

Steel columns

Concrete Columns

VLS DDL (Box #4-2)

1.25% URM block

4% Steel Columns

1.25% Non-ductile R/C Columns

Supports Description (Box #4-3)

Predominantly 8" load bearing URM. Steel columns found on glazed walls of Shops, Cafeteria and Boiler room. R/C Columns are in Library. Classroom and Admin areas have wood studs on partial height block wall forming a hinge.

(2) LDRSs**Number of LDRS Prototypes (Box #4-4)**

1

LDRS Prototype Details (Box #4-5)

Shaking Direction	Prototype No.	LDRS Prototype Description	Max DDL	Capacity
N-S/E-W	M-2	Unreinforced Masonry	1.25%	5%W

Comments on LDRS Prototypes (Box #4-6)

DDL governed by URM VLS. Diaphragms are flexible. Capacity of URM LDRS drag lines range from 5% (mostly clear storey windows with cantilevered steel columns) to 25%W. Lowest capacity listed as it will govern risk.

(3) Out-of-Plane URM Walls**URM Walls (Box #4-7)**

<input type="checkbox"/>	No
<input checked="" type="checkbox"/>	Yes

Out-of-Plane Prototype Details (Box #4-8)

Prototype No.	Prototype Description	Max. Height	Wall Thickness	Surcharge
OP-2	Inadequately restrained walls (load bearing)	2800 to 4200	190	50% to 100%
OP-2	Inadequately restrained walls (partition)	2800 to 4200	140	0%
OP-1	Cantilever wall	1000 to 2000	190	0%
OP-3	Restrained wall (confined)	3350	190	100%

Comments on Out-of-Plane Prototypes (Box #4-9)

Most corridor walls are load bearing. Most exterior walls are cantilever with load supported by steel columns. Demising walls are 6" with no surcharge. Library exterior walls are 8" giant brick with R/C beam above.

(4) Roof Diaphragm**Roof Diaphragm Material (Box #4-10)**

<input checked="" type="checkbox"/> Wood	<input type="checkbox"/> Concrete
<input checked="" type="checkbox"/> Steel Deck	<input type="checkbox"/> Braced Steel

Roof Diaphragm Prototype Details (Box #4-11)

Prototype No.	Roof Diaphragm Prototype Description	Span	Max. Movement	Capacity
D-2	Unblocked plywood	37m	100mm	5%W
D-3	2 inch T&G Deck (horizontal boards)	15 to 45m	100mm	9 to 3%Wd
D-3	Horizontal Shiplap (horizontal boards)	15 to 45m	100mm	6 to 2%W
D-6	Non-ductile Metal Deck	20m	100mm	22%W

Comments on Roof Diaphragm (Box #4-12)

T&G decking is over higher areas framed with glulam beams (boiler room, shops and cafeteria). Shiplap in areas with joist framing (classrooms, hallways, changerooms and Admin). Plywood over West building.

Note: diaphragm capacity based for West building based on diaphragm shear capacity only. Due to slender aspect ratio and lack of cords, diaphragm is very flexible and does not meet displacement limits.

(5) Floor Diaphragm**Floor Diaphragm Material (Box #4-13)**

<input type="checkbox"/> Wood	<input type="checkbox"/> Concrete
<input type="checkbox"/> Steel Deck with Concrete Topping	

Floor Diaphragm Prototype Details (Box #4-14)

Prototype No.	Floor Diaphragm Prototype Description	Span	Max. Movement	Capacity
N.A.				

Comments on Floor Diaphragm (Box #4-15)

Single storey. Areas of crawlspace have cast in place slabs.

(5) Connections**Adequate Connections (Box #4-16)**

Roof Diaphragm / LDRS	<input type="checkbox"/>	Yes
	<input checked="" type="checkbox"/>	No
LDRS / Foundation	<input type="checkbox"/>	Yes
	<input checked="" type="checkbox"/>	No

Comments on Connections (Box #4-17)

Connections are not detailed but given the vintage and type of construction are likely inadequate.

Risk Assessment Results (Box #5-1)

Principal Element	Prototype No.	Prototype Description	PDE
LDRS (N-S/E-W)	M-2	Unreinforced Masonry	>10%
Out-of-plane Walls	OP-2	8" HCB (3 to 4.2 m) 50% surcharge	>5% but <10%
Out-of-plane Walls	OP-2	8" HCB (3m or less) 100% surcharge	>2% but <5%
Out-of-plane Walls	OP-2	6" HCB Walls (partition)	>10%
Out-of-plane Walls	OP-1	8" (1 to 2m) (exterior)	>10%
Out-of-plane Walls	OP-3	8" Giant Brick	0.9%
Diaphragm	D-2	Unblocked Plywood	2.1%
Diaphragm (15 to 45m)	D-3	2" T&G	2.9 to 50%
Diaphragm (15 to 45m)	D-3	Shiplap	3.5 to 50%
Diaphragm (20m)	D-6	Non Ductile Deck	9.6%
Maximum LDRS PDE (refer to GDL note below)			>10%
Existing Block Retrofit Priority Ranking			H1
Note: Based on GDLs of 1.25%.			

Comments on Seismic Deficiencies, Recommended Testing and Risk Assessment Results (Box #5-2)Seismic Deficiencies:

- Several wall lines have very low capacity due to large window openings.
- Most walls, including some load bearing, are at risk of out-of-plane failure.
- Diaphragms are in general weak and not well connected
- Some exterior walls have load bearing studs on cantilevered masonry, thus forming a hinge mid-height

Suggested Testing:

- Hazardous material testing should be done to check for vermiculite in exterior concrete block walls, lead paint and asbestos.

Retrofit Options Documented (Box #6-1)

No.	Retrofit Performance Level	Chapter
1	Life-Safety Retrofit	7
2	Phased Retrofit	8

Comments on Documented Retrofit Options (Box #6-2)

Both Life-safety and Phased were reviewed for this Block. Enhanced was not reviewed as this is not a Gymnasium block.

(1) Retrofit Concept

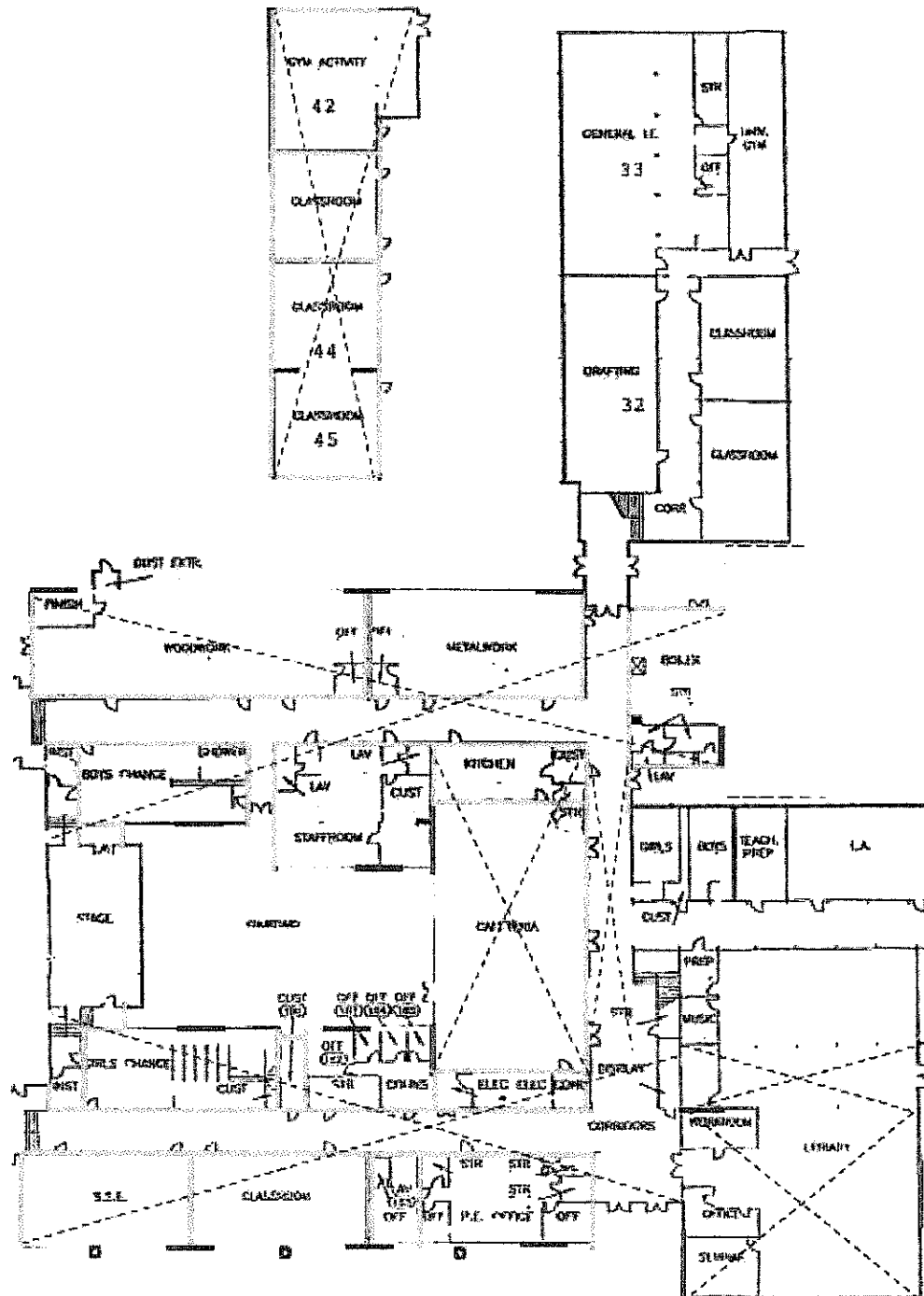


Figure 7.1: Life-safety Retrofit Concept Plan

Note: Retrofit of masonry walls should be done from the interior where possible.

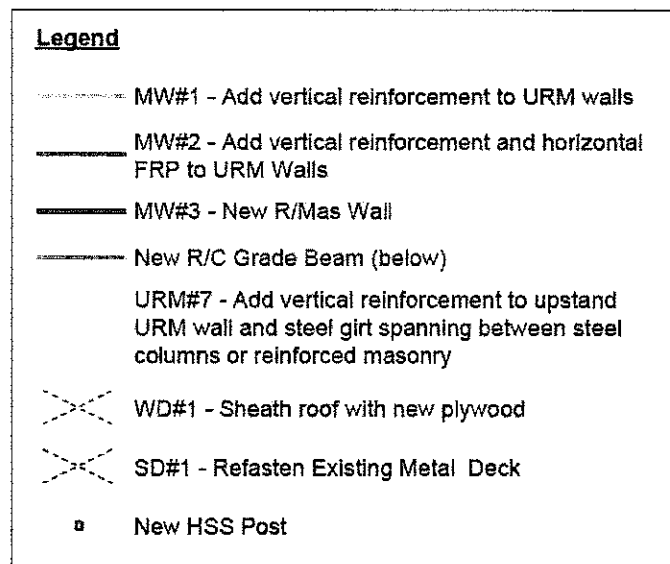


Figure 7.2: Life-safety Retrofit Legend

Comments on Figure 7.1 and Figure 7.2 (Box #7-1)

Add vertical reinforcing to existing unreinforced concrete block walls. Add new masonry walls or horizontal FRP strips for lateral capacity for areas with significant window openings. Sheath wood diaphragms and refasten metal deck diaphragms. Add steel girts and posts to address wall hinges.

(2) Retrofit LDRSs**Number of Retrofit LDRS Prototypes (Box #7-2)**

1

Retrofit LDRS Prototype Details (Box #7-3)

Shaking Direction	Prototype No.	LDRS Prototype Description	Max PDE	Max DDL	R _m
N-S/E-W	M-3	Reinforced Masonry	2%	1.25%	18.9%W

Comments on Retrofit LDRS Prototypes (Box #7-4)

New reinforced masonry in both directions. Combined with existing moment frame in N-S direction and with rocking squat shearwalls in E-W direction.

(3) SPiR Benchmarks**Benchmark SPiRs (Box #7-5)**

Benchmark SPiR No.	Benchmark SPiR Description	Retrofit Cost (\$ / m ²)
41-009	Alpha Secondary Block 6 – Shops	\$690/m ²

Comments:

Both blocks are URM concrete block with timber roofs.

(4) Scope of Retrofit

Refer to Appendix A for details on the scope of work for both the structural and non-structural retrofits.

(5) Retrofit Cost Estimate

Refer to Appendix B for details on the retrofit cost estimate for the life safety retrofit. A summary of the life safety retrofit is given in Chapter 10.

(6) Schedule**Schedule (Box #7-6)**

No.	Schedule Issue	Value
1	Temporary Accommodations	Unknown
Comment on Operational Disruption: The work required is extensive. Temporary accommodations will be required during the school year.		

(7) Construction Risks**Risks (Box #7-7)**

Risk Description	Significant Risk			
Asbestos	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
Vermiculite	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
Other: Lead Paint	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No

Risk Management Comments (Box #7-8)

No existing documents provide information on hazardous materials. Given vintage, lead paint, asbestos and vermiculite are very likely.

Summary of Life-safety Retrofit Option (Box #7-9)

The Life-safety retrofit provides the following:

- Add vertical reinforcing to existing unreinforced concrete block walls.
- Add new masonry walls or horizontal FRP strips for lateral capacity for areas with significant window openings.
- Sheath wood diaphragms and refasten metal deck diaphragms.
- Add steel girts and posts to address wall hinges.

The Life-safety retrofit will reduce the Seismic Risk of the facility to Low (i.e. 2% in 50 years).

Summary of Phased Retrofit Option (Box #8-1)

The Phased retrofit is similar to the life-safety, but differs in the following ways:

- Load bearing corridor walls in the N-S direction have adequate PDE (<5%) and do not need to be vertically reinforced, but still need to be connected to the roof diaphragm.
- Total amount of new reinforced masonry along the exterior East and West walls can be reduced from 3 bays down to 2.
- The amount of FRP strengthened walls near the cafeteria is reduced by about one third.
- See Appendix A for specific changes.

The Phased retrofit will reduce the Seismic Risk of the facility to Low (i.e. 5% in 50 years).

The enhanced retrofit does not apply to this block because it is not a Gymnasium.

Seismic Project Identification Report

APPENDIX A SCOPE OF RETROFIT DETAILS for BLOCK #02-6 (Classrooms/Admin) BURNABY NORTH SECONDARY SCHOOL

Table A.1: Scope of Structural Life-safety Retrofit

No.	Retrofit Detail	Construction Activity	Quantity
1a	MW#1	Add vertical reinforcing to existing masonry walls. Matching dowels into existing foundation wall. Work from interior.	3.1m high x 519m long
1b	Grade beams	Breakout existing slab on grade and cast new 400x400 grade R/C grade beam	15m long
2a	MW#2	Add vertical reinforcing and horizontal FRP strips to existing masonry walls. Matching dowels into existing foundation wall. Work from interior.	3.1m high x 21m long
2b	MW#3	New reinforced masonry walls.	3.1m high x 43m long
3	URM#7	Add vertical reinforcing to existing cantilever masonry walls. Matching dowels into existing foundation wall. Provide HSS girt at top of wall.	1.5m high x 144m long
4	WD#1	Remove roofing and sheath existing timber roof with new plywood.	2358m ²
5	SD#1	Remove roofing. Add sheet metal straps over sidelaps and refasten deck to joists.	382m ²
6	HSS Posts	Add new steel posts on exterior of building. Provide pad footing below and attach to roof diaphragm above. Fasten to girts from URM#7 on either side.	3 locations 3.2m tall
7	Seismic Gap	Provide angle with long slotted holes to underside of roof deck. Peel back roofing, cut 64mm slot in T&G decking. Reroof.	20m long

Table A.2: Scope of Structural Phased Retrofit

No.	Retrofit Detail	Construction Activity	Quantity
1a	MW#1	Add vertical reinforcing to existing masonry walls. Matching dowels into existing foundation wall. Work from interior.	3.1m high x 346m long
1b		Provide connection between existing URM wall and roof diaphragm only	180m long
1c	Grade beams	Breakout existing slab on grade and cast new 400x400 grade R/C grade beam	15m long
2a	MW#2	Add vertical reinforcing and horizontal FRP strips to existing masonry walls. Matching dowels into existing foundation wall. Work from interior.	3.1m high x 14m long
2b	MW#3	New reinforced masonry walls.	3.1m high x 36m long
3	URM#7	Add vertical reinforcing to existing cantilever masonry walls. Matching dowels into existing foundation wall. Provide HSS girt at top of wall.	1.5m high x 151m long
4	WD#1	Remove roofing and sheath existing timber roof with new plywood.	2358m ²
5	SD#1	Remove roofing. Add sheet metal straps over sidelaps and refasten deck to joists.	382m ²
6	HSS Posts	Add new steel posts on exterior of building. Provide pad footing below and attach to roof diaphragm above. Fasten to girts from URM#7 on either side.	3 locations 3.2m tall
7	Seismic Gap	Provide angle with long slotted holes to underside of roof deck. Peel back roofing, cut 64mm slot in T&G decking. Reroof.	20m long

Seismic Project Identification Report

APPENDIX B RETROFIT COST ESTIMATE REPORT for BLOCK #02-6 (Classrooms/Admin) BURNABY NORTH SECONDARY SCHOOL

Retrofit Cost Estimate Report

Cost estimate by Denis Walsh Associates Ltd.

Burnaby North Secondary School				
BLOCK #6 (Classrooms / Admin)				
Construction Cost Estimate of Life Safety Retrofit				
SUMMARY				
				3-Mar-14
Floor Area	2,740 m2			
Component		\$	\$/m2	
Site Development		1,000	0.36	
Earthwork		8,500	3.10	
Selective Demolition		360,614	131.61	
Concrete Work		13,054	4.76	
Unreinforced Masonry Walls		641,863	234.26	
Seismic Separations		14,000	5.11	
Diaphragm Upgrades & Connections		501,464	183.02	
Other Work		6,000	2.19	
Exterior Building Envelope Work		502,238	183.30	
Interior Work		529,320	193.18	
Electrical		137,000	50.00	
Mechanical		221,940	81.00	
Hazardous Material		68,500	25.00	
Sub-total		3,005,493	1,096.90	
General Requirements & General Contractor's Fee		601,099	219.38	
Sub-total		3,606,592	1,316.27	
Design Contingency 15%		540,989	197.44	
Total (Excluding GST)		4,147,580	1,513.72	

Burnaby North Secondary School				
Block #6 (Classrooms/Admin)				
Construction Cost Estimate of Life Safety Retrofit				3-Mar-14
Description	Quantity	Unit Rate \$	Cost \$	Sub-totals \$

Site Development

1,000

Make good site development at new exterior posts

1 LS 1,000.00 1,000

Earthwork

8,500

Excavation and disposal for grade beams and pad footings

12 m3 500.00 6,000

Preparation work at existing footings

1 LS 2,500.00 2,500

Selective Demolition

360,614

Interior concrete slab removal

17 m2 200.00 3,400

Removal and disposal of existing roofing

2,740 m2 50.00 137,000

Demolish exterior walls

112 m2 307.00 34,384

Remove exterior cladding

203 m2 100.00 20,300

Demolish interior walls

22 m2 105.00 2,310

Remove floor finishes

912 m2 35.00 31,920

Remove floor tiling to washrooms

307 m2 80.00 24,560

Remove ceilings

1,230 m2 30.00 36,900

Remove wall tiling

188 m2 80.00 15,040

Removal of millwork, cabinets and specialties

2,740 m2 20.00 54,800

Concrete Work

13,054

Grade beams: 400 x 400mm

17 m 512.00 8,704

Pad footings for exterior HSS posts

3 No 600.00 1,800

Concrete floor slab replacement

17 m2 150.00 2,550

Unreinforced Masonry Walls

641,863

Add vertical reinforcing to existing masonry walls: MW#1

1,609 m2 246 395,814

Add vertical reinforcing to existing cantilever masonry walls: URM#7

216 m2 246 53,136

Add vertical reinforcement and horizontal FRP strips to existing masonry walls: MW#2

21 m 1,473.00 30,933

Dowels into existing foundation walls

632 No 60.00 37,920

New reinforced masonry walls: MW#3

134 m2 410 54,940

Burnaby North Secondary School				
Block #6 (Classrooms/Admin)				
Construction Cost Estimate of Life Safety Retrofit				3-Mar-14
Description	Quantity	Unit Rate \$	Cost \$	Sub-totals \$
HSS girt at top of reinforced cantilever walls	144 m	480.00	69,120	
Seismic Separations				14,000
Cut 64mm slot in T & G roof decking for seismic gap	20 m	300.00	6,000	
Steel angle with long slotted holes to underside of roof deck	20 m	400.00	8,000	
Diaphragm Upgrades & Connections				501,464
Drag struts to top of new masonry walls	50 m	220.00	11,000	
Roof diaphragm upgrade: ply to existing roof: WD#1	2,358 m2	71.00	167,418	
Roof diaphragm upgrade: add sheet metal straps over sidelaps and refasten metal deck to joists: SD#1	382 m2	137.00	323,046	
Other Work				6,000
Exterior HSS steel posts attached to roof diaphragm	3 No	2,000.00	6,000	
Exterior Building Envelope Work				502,238
<u>Roofing</u>				
New roofing	2,740 m2	156.00	427,440	
Remove and make good roofing for seismic joint	20 m	412.00	8,240	
Seismic joint cover	20 m	138.00	2,760	
<u>Exterior Wall Cladding, Windows & Doors</u>				
Replace exterior wall cladding	112 m2	288.00	32,256	
Make good exterior cladding	203 m2	144.00	29,232	
Exterior painting to exposed steel	154 m	15	2,310	
Interior Work				529,320
<u>Partitions & Doors</u>				
Removal/reinstatement/partial replacement of doors/frames/hardware	20 Lfs	1,000.00	20,000	

Burnaby North Secondary School				
Block #6 (Classrooms/Admin)				
Construction Cost Estimate of Life Safety Retrofit				3-Mar-14
Description	Quantity	Unit Rate \$	Cost \$	Sub-totals \$
<u>Finishes</u>				
Reinstate floor finishes: patch, repair, make good	912 m2	90.00	82,080	
Floor tiling to washrooms	307 m2	200.00	61,400	
Reinstate ceilings: patch, repair and make good	1,230 m2	72.00	88,560	
Paint ceilings	2,740 m2	12.00	32,880	
Wall finish: paint	4,675 m2	12.00	56,100	
Wall finish: tiling to washrooms	188 m2	200.00	37,600	
<u>Millwork, Cabinets, Specialties</u>				
New and partial reinstatement of millwork, cabinets and specialties	2,740 m2	55.00	150,700	
Electrical				137,000
Electrical work due to seismic work	2,740 m2	50.00	137,000	
Mechanical				221,940
Plumbing	2,740 m2	38.00	104,120	
Sprinklers	2,740 m2	8.00	21,920	
HVAC	2,740 m2	35.00	95,900	
Hazardous Materials	2,740 m2	25.00	68,500	68,500
Sub-total				3,005,493
General requirements, General Contractor's fee		20%		601,099
Sub-total				3,606,592
Design Contingency		15%		540,989
Total				4,147,580

Burnaby North Secondary School				
BLOCK #6 (Classrooms / Admin)				
Construction Cost Estimate of Phased Retrofit				
SUMMARY				
				13-Mar-14
Floor Area	2,740 m2			
Component		\$	\$/m2	
Site Development		1,000	0.36	
Earthwork		8,500	3.10	
Selective Demolition		334,824	122.20	
Concrete Work		13,054	4.76	
Unreinforced Masonry Walls		487,202	177.81	
Seismic Separations		14,000	5.11	
Diaphragm Upgrades & Connections		561,384	204.88	
Other Work		6,000	2.19	
Exterior Building Envelope Work		502,343	183.34	
Interior Work		453,396	165.47	
Electrical		123,300	45.00	
Mechanical		205,500	75.00	
Hazardous Material		68,500	25.00	
Sub-total		2,779,003	1,014.23	
General Requirements & General Contractor's Fee		555,801	202.85	
Sub-total		3,334,804	1,217.08	
Design Contingency 15%		500,221	182.56	
Total (Excluding GST)		3,835,024	1,399.64	

Burnaby North Secondary School				
Block #6 (Classrooms/Admin)				
Construction Cost Estimate of Phased Retrofit				13-Mar-14
Description	Quantity	Unit	Rate \$	Cost \$
				Sub-totals \$

Site Development

1,000

Make good site development at new exterior posts

1 LS 1,000.00 1,000

Earthwork

8,500

Excavation and disposal for grade beams and pad footings

12 m3 500.00 6,000

Preparation work at existing footings

1 LS 2,500.00 2,500

Selective Demolition

334,824

Interior concrete slab removal

17 m2 200.00 3,400

Removal and disposal of existing roofing

2,740 m2 50.00 137,000

Demolish exterior walls

112 m2 307.00 34,384

Remove exterior cladding

203 m2 100.00 20,300

Remove floor finishes

552 m2 35.00 19,320

Remove floor tiling to washrooms

307 m2 80.00 24,560

Remove ceilings

1,050 m2 30.00 31,500

Remove wall tiling

188 m2 80.00 15,040

Removal of millwork, cabinets and specialties

2,740 m2 18.00 49,320

Concrete Work

13,054

Grade beams: 400 x 400mm

17 m 512.00 8,704

Pad footings for exterior HSS posts

3 No 600.00 1,800

Concrete floor slab replacement

17 m2 150.00 2,550

Unreinforced Masonry Walls

487,202

Add vertical reinforcing to existing masonry walls: MW#1

1,073 m2 246 263,958

Add vertical reinforcing to existing cantilever masonry walls: URM#7

227 m2 246 55,842

Add vertical reinforcement and horizontal FRP strips to existing masonry walls: MW#2

14 m 1,473.00 20,622

Dowels into existing foundation walls

473 No 60.00 28,380

New reinforced masonry walls: MW#3

112 m2 410 45,920

Burnaby North Secondary School				
Block #6 (Classrooms/Admin)				
Construction Cost Estimate of Phased Retrofit				13-Mar-14
Description	Quantity	Unit Rate \$	Cost \$	Sub-totals \$
HSS girt at top of reinforced cantilever walls	151 m	480.00	72,480	
Seismic Separations				14,000
Cut 64mm slot in T & G roof decking for seismic gap	20 m	300.00	6,000	
Steel angle with long slotted holes to underside of roof deck	20 m	400.00	8,000	
Diaphragm Upgrades & Connections				561,384
Drag struts to top of new masonry walls	36 m	220.00	7,920	
Roof diaphragm upgrade: ply to existing roof: WD#1	2,358 m2	71.00	167,418	
Roof diaphragm upgrade: add sheet metal straps over sidelaps and refasten metal deck to joists: SD#1	382 m2	137.00	323,046	
Provide connection between existing URM wall and roof diaphragm only	180 m	350.00	63,000	
Other Work				6,000
Exterior HSS steel posts attached to roof diaphragm	3 No	2,000.00	6,000	
Exterior Building Envelope Work				502,343
<u>Roofing</u>				
New roofing	2,740 m2	156.00	427,440	
Remove and make good roofing for seismic joint	20 m	412.00	8,240	
Seismic joint cover	20 m	138.00	2,760	
<u>Exterior Wall Cladding, Windows & Doors</u>				
Replace exterior wall cladding	112 m2	288.00	32,256	
Make good exterior cladding	203 m2	144.00	29,232	
Exterior painting to exposed steel	161 m	15	2,415	
Interior Work				453,396
<u>Partitions & Doors</u>				
Removal/reinstatement/partial replacement of doors/frames/hardware	16 Lfs	1,000.00	16,000	

Burnaby North Secondary School				
Block #6 (Classrooms/Admin)				
Construction Cost Estimate of Phased Retrofit				13-Mar-14
Description	Quantity	Unit Rate \$	Cost \$	Sub-totals \$
<u>Finishes</u>				
Reinstate floor finishes: patch, repair, make good	552 m2	90.00	49,680	
Floor tiling to washrooms	307 m2	200.00	61,400	
Reinstate ceilings: patch, repair and make good	1,050 m2	72.00	75,600	
Paint ceilings	2,560 m2	12.00	30,720	
Wall finish: paint	3,783 m2	12.00	45,396	
Wall finish: tiling to washrooms	188 m2	200.00	37,600	
<u>Millwork, Cabinets, Specialties</u>				
New and partial reinstatement of millwork, cabinets and specialties	2,740 m2	50.00	137,000	
Electrical				123,300
Electrical work due to seismic work	2,740 m2	45.00	123,300	
Mechanical				205,500
Plumbing	2,740 m2	34.00	93,160	
Sprinklers	2,740 m2	8.00	21,920	
HVAC	2,740 m2	33.00	90,420	
Hazardous Materials	2,740 m2	25.00	68,500	68,500
Sub-total				2,779,003
General requirements, General Contractor's fee		20%		555,801
Sub-total				3,334,804
Design Contingency		15%		500,221
Total				3,835,024

Seismic Project Identification Report

APPENDIX C

REPRESENTATIVE STRUCTURAL DETAILS

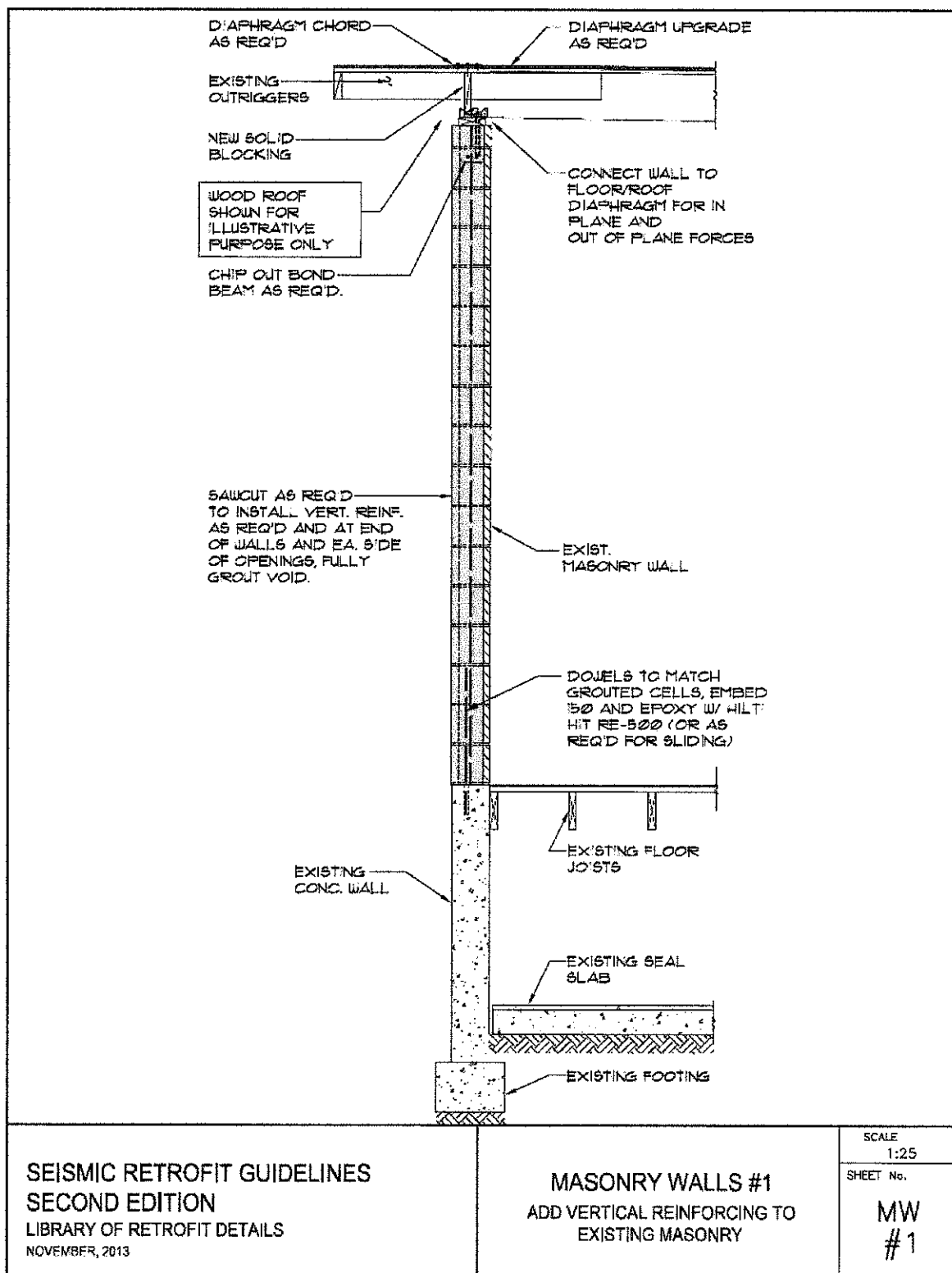
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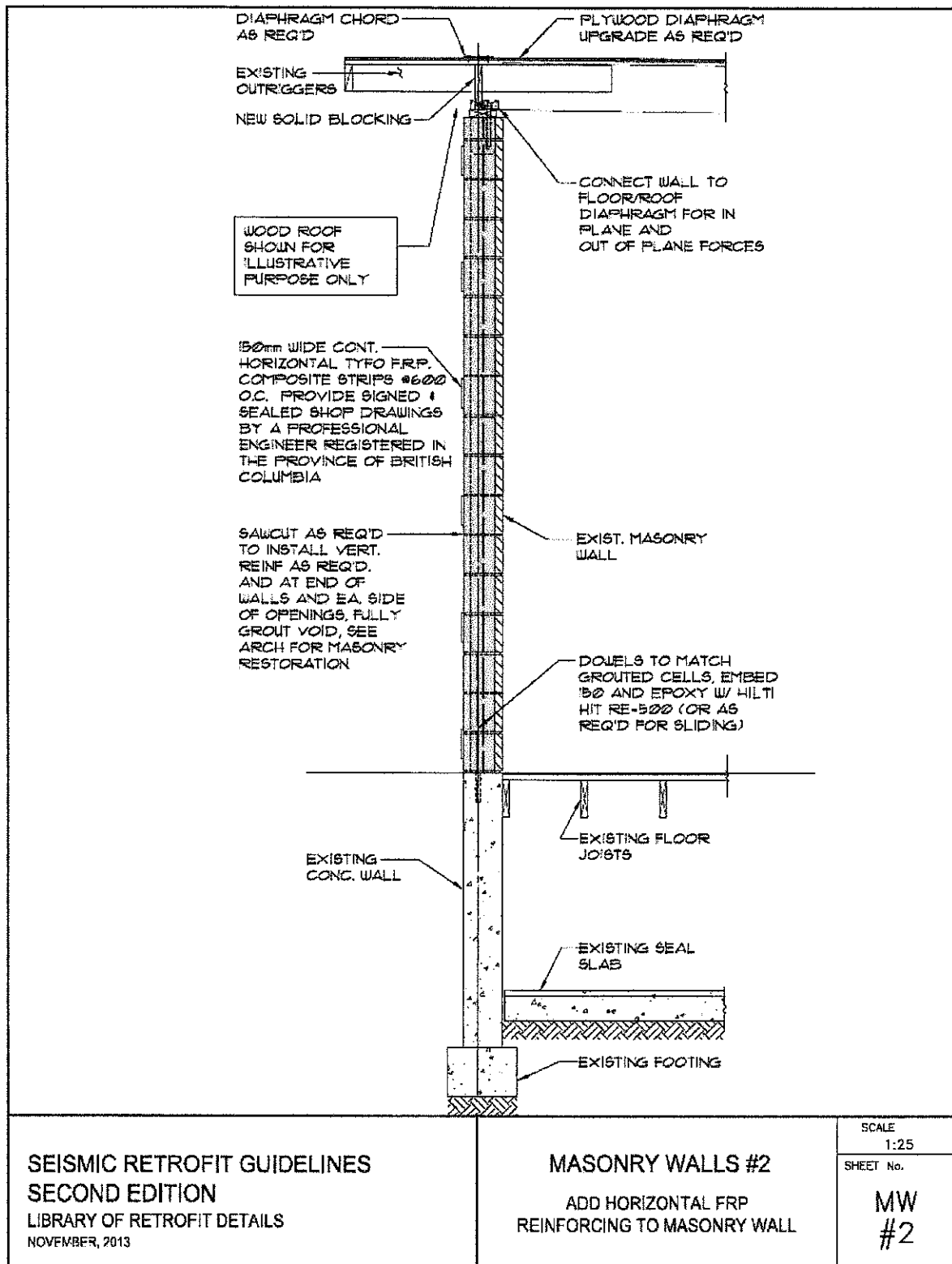
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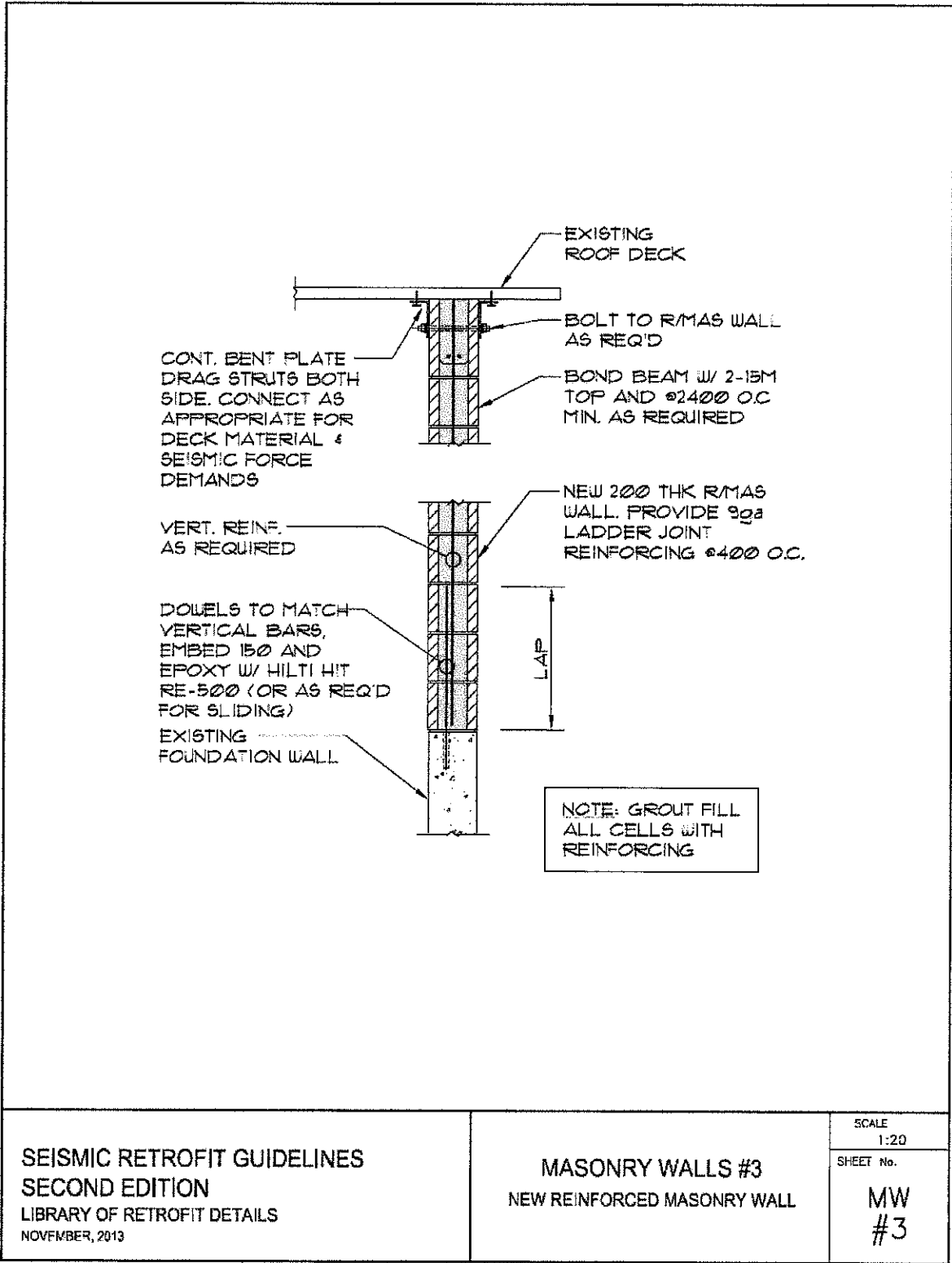
BURNABY NORTH SECONDARY SCHOOL

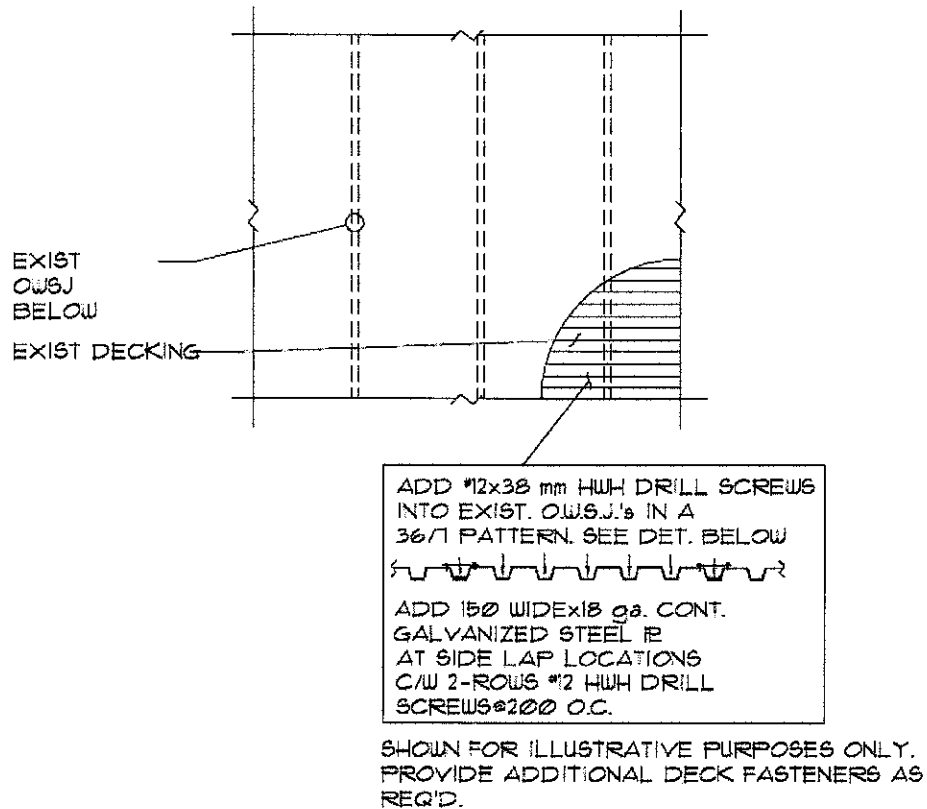
Representative Structural Details

The following details (MW#1, MW#2, MW#3, SD#1, URM#7, WD#1 and WSW#1) are from the Library of Retrofit Details, Volume 7 of the Seismic Retrofit Guidelines and have been attached here for reference.









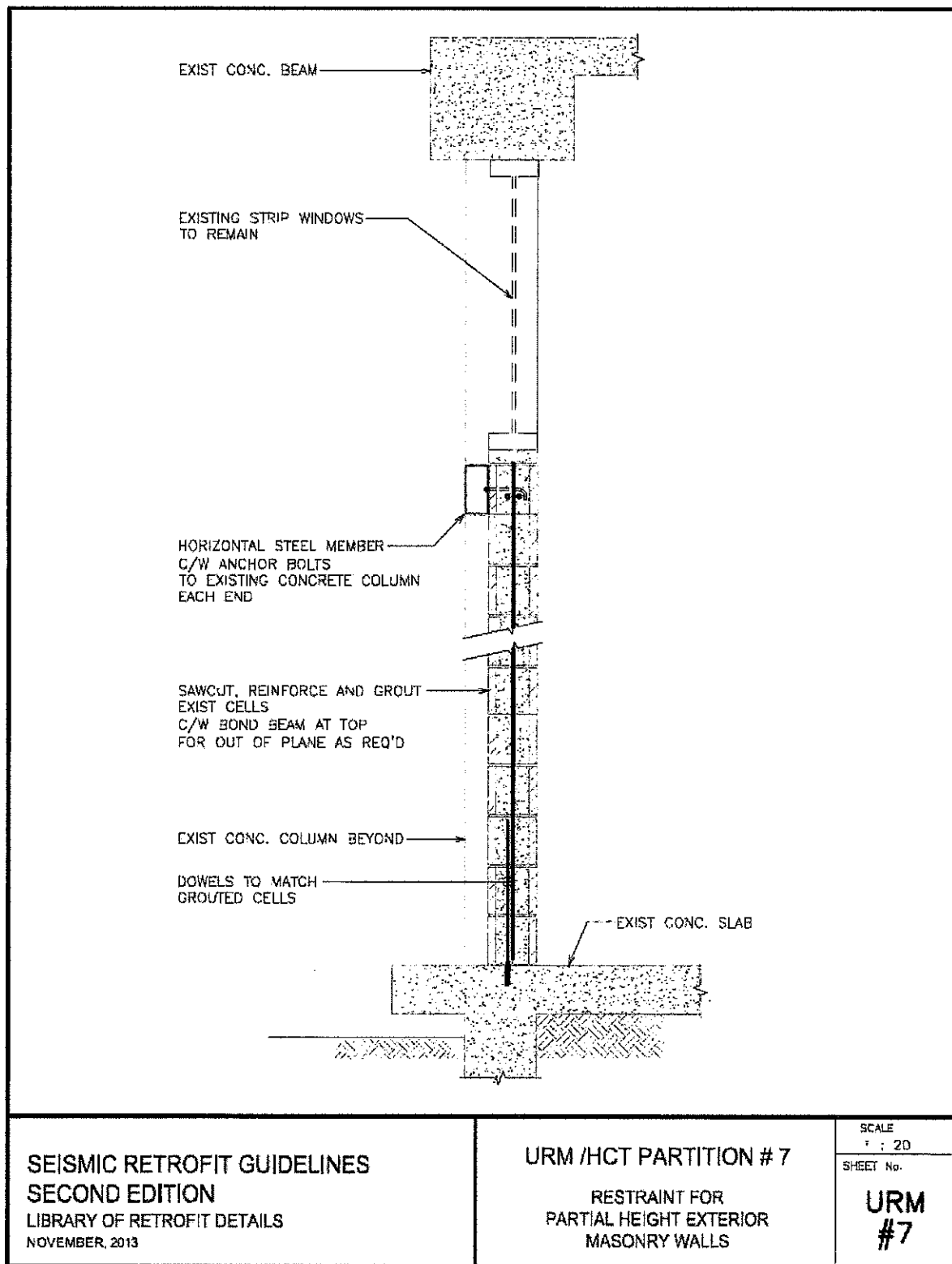
SEISMIC RETROFIT GUIDELINES
SECOND EDITION
LIBRARY OF RETROFIT DETAILS
NOVEMBER, 2013

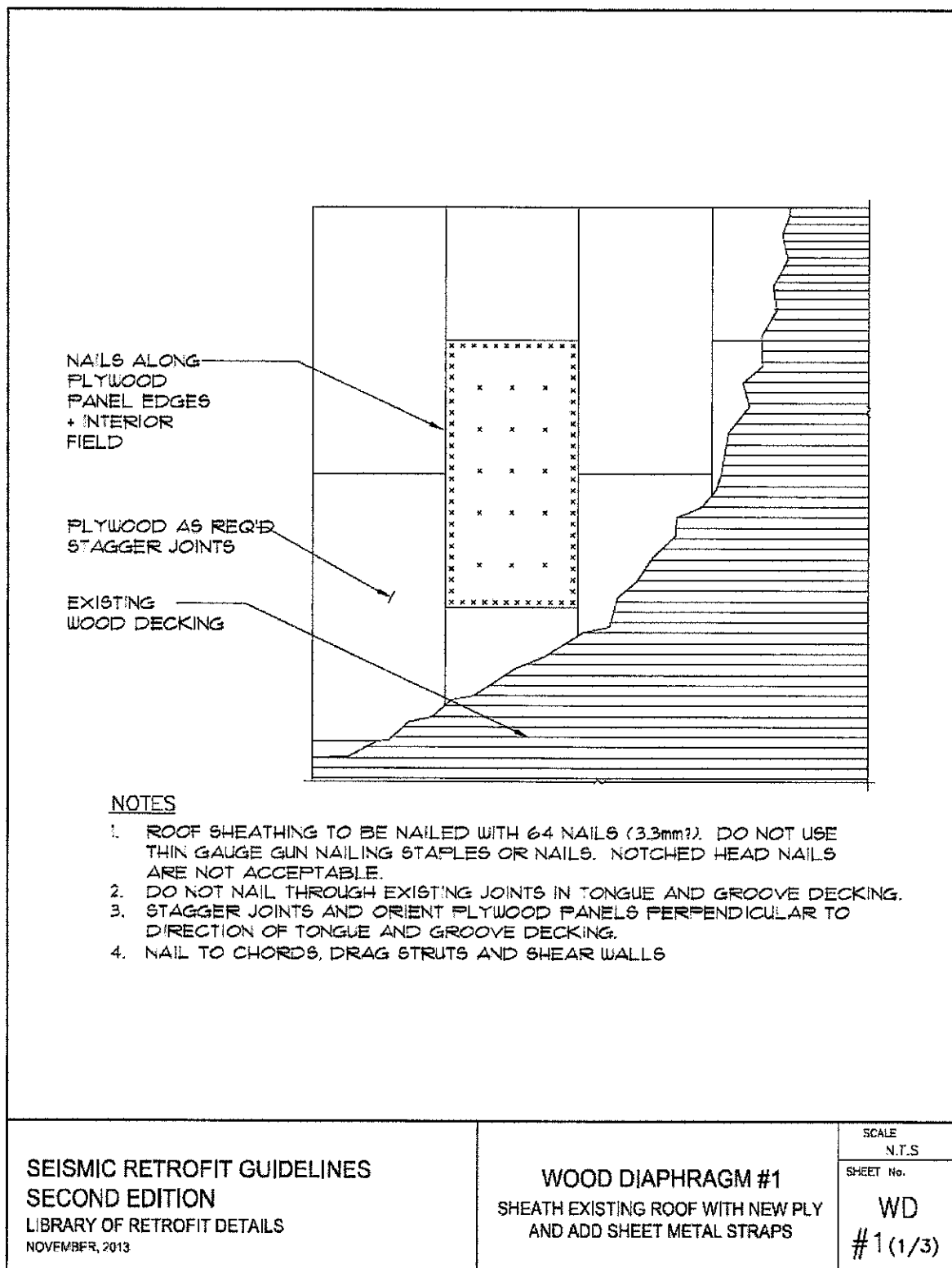
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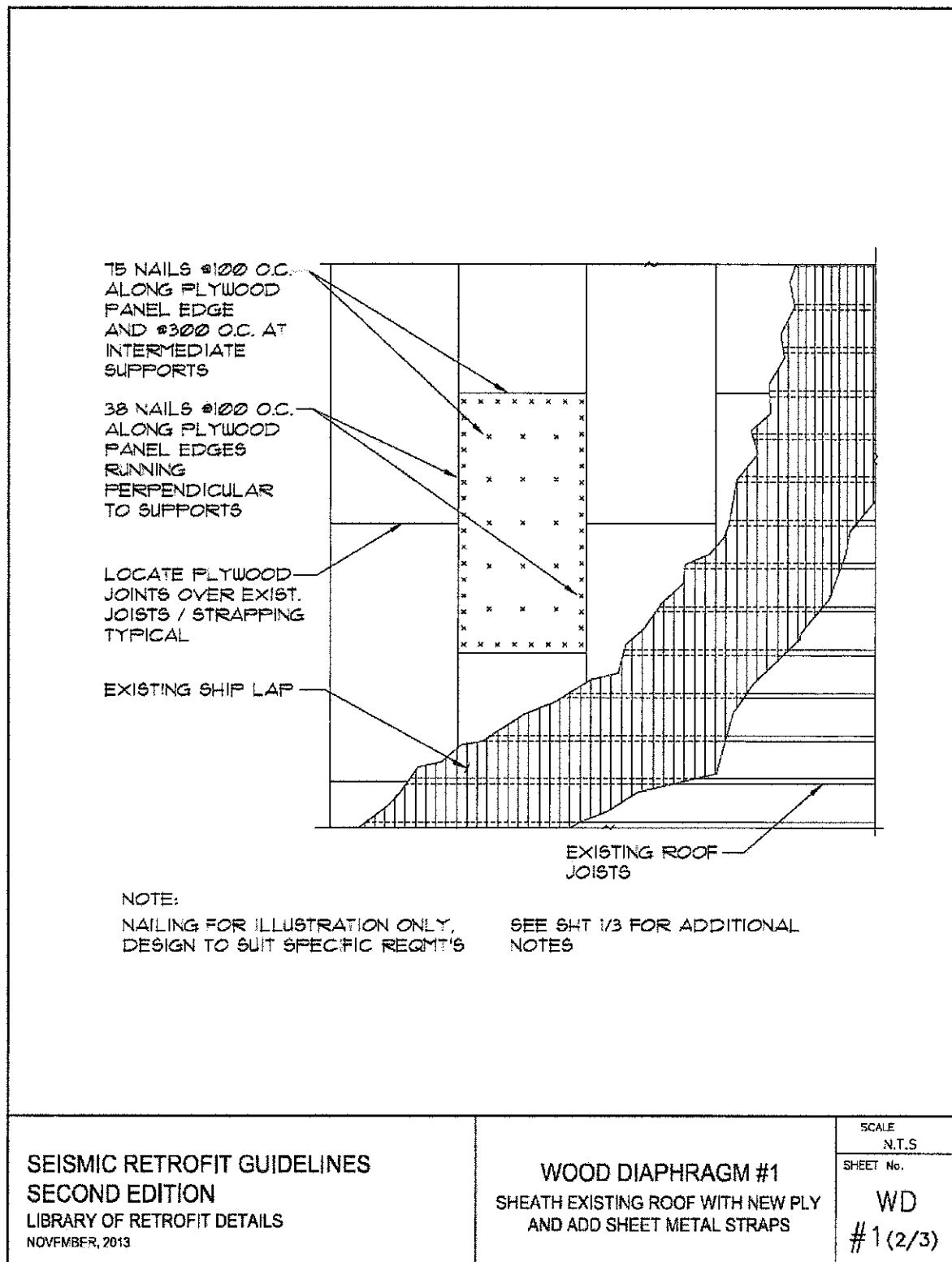
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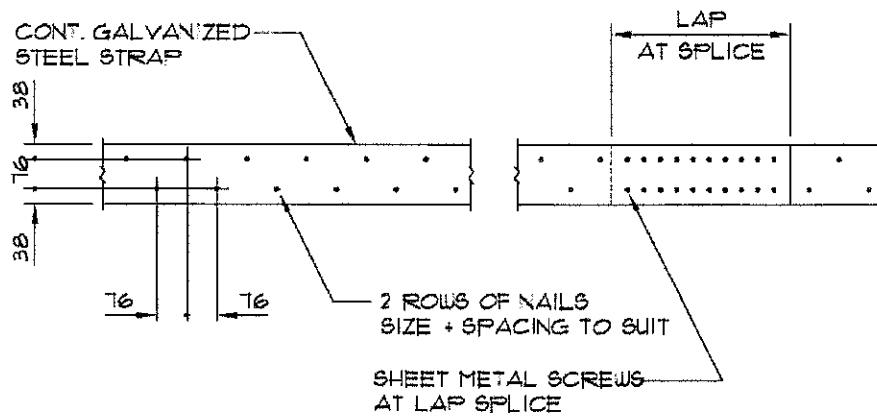
SHEET No.

SD
#1







**NOTES**

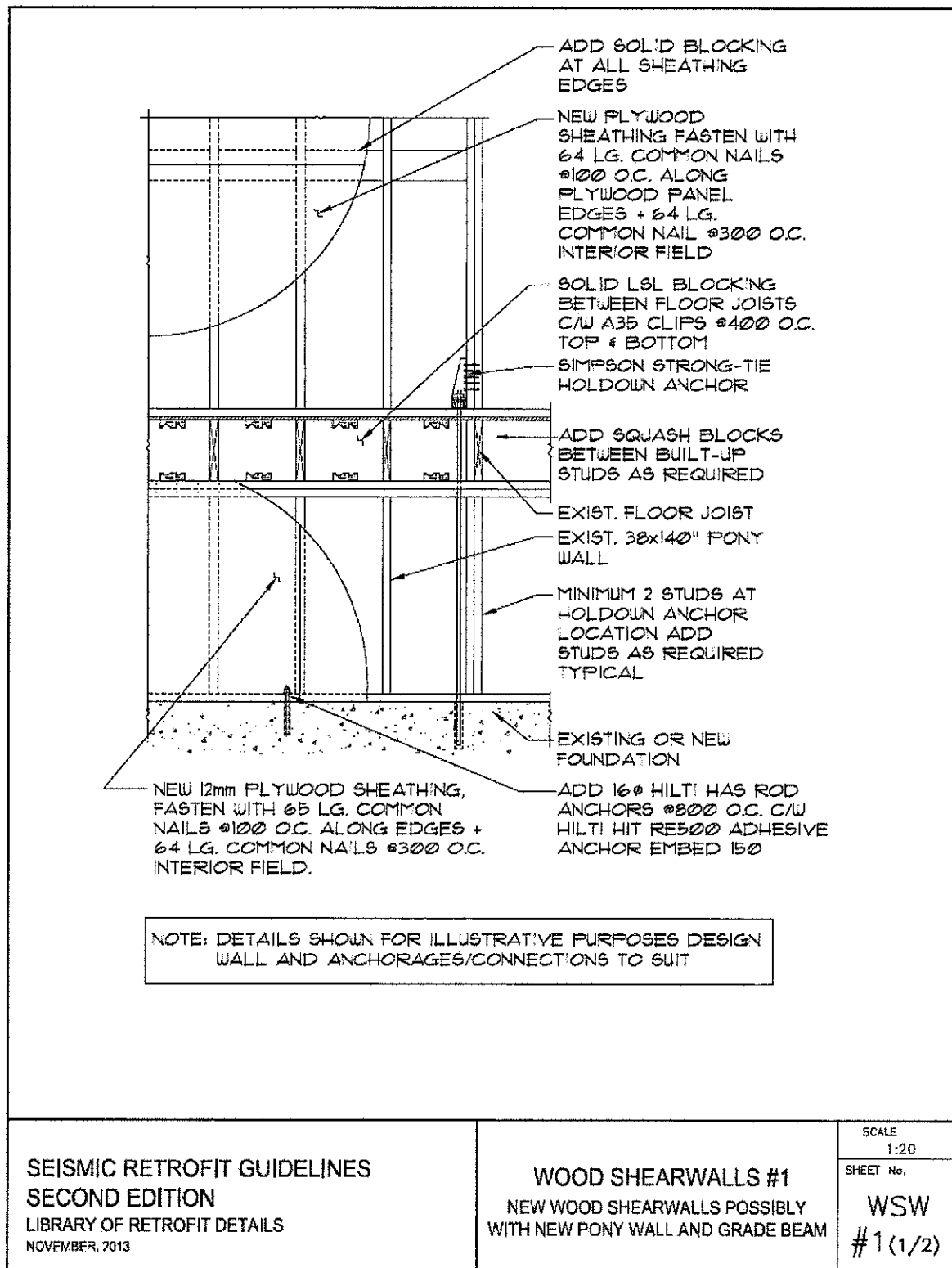
1. CONTINUOUS GAUGE STEEL STRAP TO BE CENTRED OVER WALLS OR BLOCKS
2. FASTEN TO PLYWOOD SHEATHING WITH 2 ROWS OF NAILS AND SPLICE AS PER DETAILS.

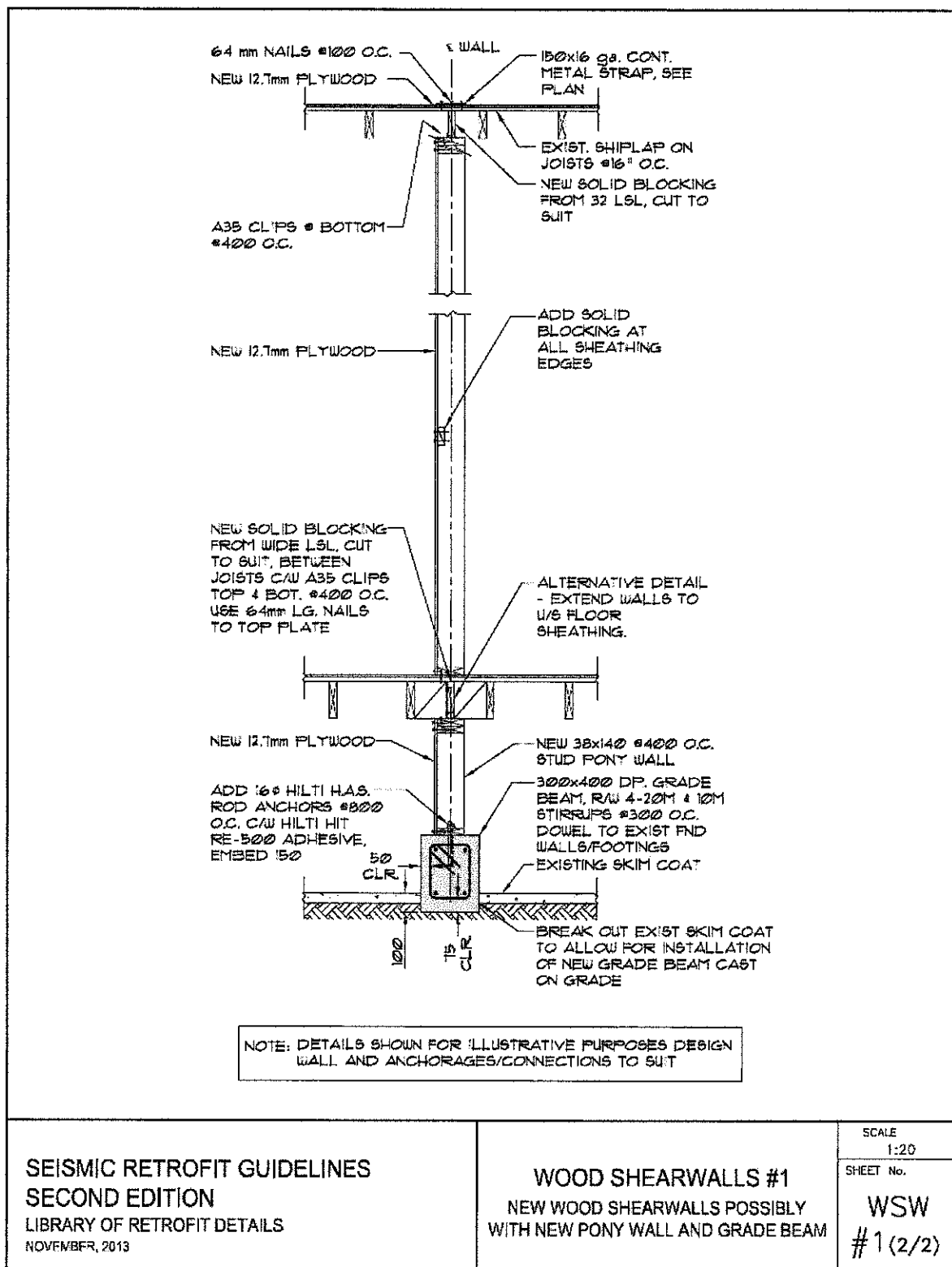
SEISMIC RETROFIT GUIDELINES
SECOND EDITION
LIBRARY OF RETROFIT DETAILS
NOVEMBER, 2013

WOOD DIAPHRAGM #1
SHEATH EXISTING ROOF WITH NEW PLY
AND ADD SHEET METAL STRAPS

SCALE
N.T.S.

SHEET No.
WD
#1 (3/3)





Seismic Project Identification Report

APPENDIX D PHOTOGRAPHS for BLOCK #02-4 (South Gymnasium) BURNABY NORTH SECONDARY SCHOOL



Figure D-1: Cafeteria Interior

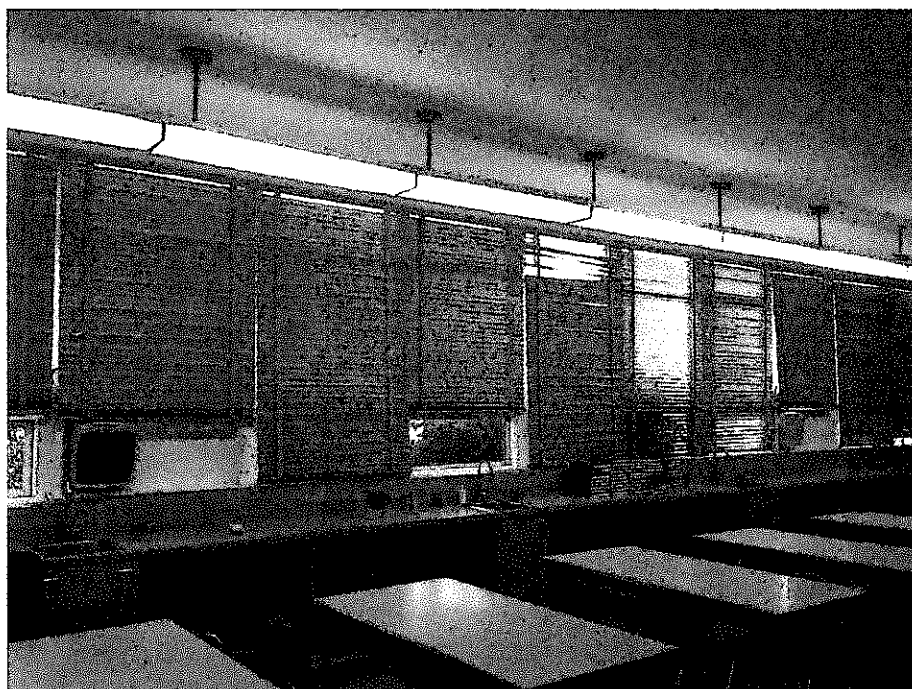


Figure D-2: Typical Classroom Interior

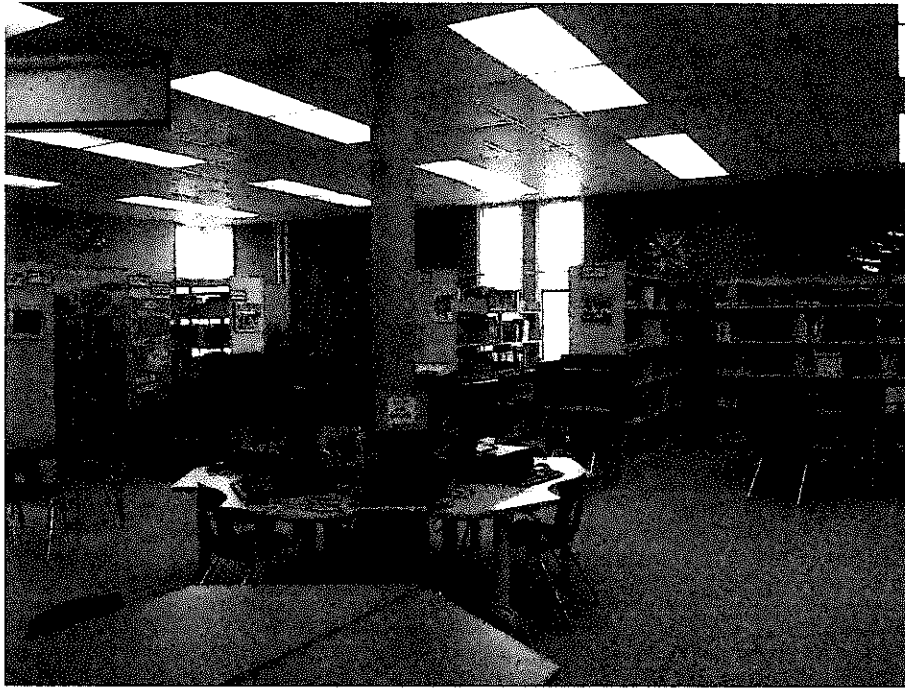


Figure D-3: Library Interior



Figure D-4: Typical Hallway

Vinning, Gurpreet S EDUC:EX

From: Robertson, Paige <Paige.Robertson@leg.bc.ca>
Sent: Wednesday, November 19, 2014 9:21 AM
To: Vinning, Gurpreet S EDUC:EX
Cc: Yap, John; Ng, PoWah LASS:EX; Quigley, Janta LASS:EX
Subject: RE: seismic upgrades

Will John be able to get a briefing?

From: Vinning, Gurpreet S EDUC:EX [<mailto:Gurpreet.Vinning@gov.bc.ca>]
Sent: November 18, 2014 4:18 PM
To: Robertson, Paige
Cc: Yap, John; Ng, PoWah; Quigley, Janta
Subject: RE: seismic upgrades

Hi Paige,

Sorry for the delay in getting back to you and John. I spoke with our capital folks and they said that, Richmond SD is currently doing a long term facilities plan. The result of that will have some influence on what happens with the Gilmore project. The project because they are doing a new facilities plan is currently in the hands of the school district.

Gurpreet

From: Robertson, Paige [<mailto:Paige.Robertson@leg.bc.ca>]
Sent: Friday, November 7, 2014 12:49 PM
To: Vinning, Gurpreet S EDUC:EX
Cc: Yap, John; Ng, PoWah LASS:EX
Subject: RE: seismic upgrades

Thank you

From: Vinning, Gurpreet S EDUC:EX [<mailto:Gurpreet.Vinning@gov.bc.ca>]
Sent: November 7, 2014 12:36 PM
To: Robertson, Paige
Subject: RE: seismic upgrades

I've forwarded to staff and asked for a rush. Sorry for the delay.

From: Robertson, Paige [<mailto:Paige.Robertson@leg.bc.ca>]
Sent: Thursday, November 6, 2014 3:46 PM
To: Vinning, Gurpreet S EDUC:EX
Cc: Ng, PoWah LASS:EX; Chen, Laura LASS:EX; Yap, John; Quigley, Janta LASS:EX
Subject: seismic upgrades

And the briefing?

Gurpreet.
When will this information be available for John?
Paige

Anything yet?

Gurpreet:

John would like the following information:

What is the status of the seismic upgrades for Richmond Schools? Specifically, what is the status of the upgrade of James Gilmore Elementary School in Richmond?

Thanks.

Paige Robertson

Constituency Assistant to

John Yap, MLA

Richmond-Steveston

Phone: 604-241-8452

Fax: 604-241-8493

Twitter: @john_yap

Facebook: johnyapsteveston