#### EDMONTON PUBLIC SCHOOLS

June 15, 2010

TO: Board of Trustees

FROM: E. Schmidt, Superintendent of Schools

SUBJECT: <u>Major Maintenance Plan 2010 - 2011</u>

ORIGINATOR: R. MacNeil, Assistant Superintendent

**RESOURCE** 

STAFF: Mike Brown, Will Deys, Pat Dougherty, Ken Erickson, Roland Labbe, Ron

McGowan, John Nicoll, Garry Padlewski, Larry Schwenneker.

#### INFORMATION

Major maintenance, life cycle replacement and minor retrofits to district facilities are accomplished through the District's Major Maintenance Plan (MMP) which is block funded by the Alberta Infrastructure and Transportation's Infrastructure Maintenance & Renewal Fund (IMR).

The IMR funding levels for a six-year period are shown in the graph in Appendix I.

The 2010 - 2011 IMR allocation from Alberta Infrastructure will not be announced until the end of July 2010. For planning purposes, we are projecting the funding level at \$15,000,000. The plan will be adjusted accordingly once the allocation is announced.

Projects that fall within the Alberta Infrastructure and Transportation (A.I.T.) guidelines and are to be included in the MMP are identified for consideration by receiving input from schools, facilities staff, facilities inspections and regulatory agencies (Appendix II). The need and requests for school improvement projects continue to exceed available funding. The plan, therefore, reflects the highest district priorities.

To ensure that all schools have the opportunity to provide input regarding their school's needs a procedure is included in the budget process. Information is provided to each school identifying scheduled/approved capital projects in that school. In addition, schools have been provided with information regarding the facility needs they previously identified. Schools have been requested to review their requirements, add or delete projects, and prioritize the projects from the school's perspective on an annual basis.

Renewal of major building elements such as re-roofing are dealt with on a life-cycle replacement and condition assessment basis, thereby distributing the financial obligation over a number of years. This approach ensures that the District's physical assets are reasonably maintained given the available funding.

The proposed 2010 Major Maintenance Plan (in M\$) is attached (Appendix III). Projects are identified and listed in accordance with district categories and priorities. The categories in order of priority are: life, health and safety, building envelope, building systems and components, delivery of educational programming and site improvements. As well, an amount is included for emergent projects, for example, the replacement of failed hot water heaters and furnaces.

#### **Highlights**

- The asbestos abatement projects within the proposed 2010 2011 MMP are a continuation of the asbestos management program (Appendix IV).
- The 2010 2011 MMP continues the partnership with the District's sustainable Energy Management Program for energy savings initiatives such as the lighting retrofit programs. The intent is to improve student learning environments and reduce energy costs. Ninety-five schools have been completed to date. This year's plan includes lighting upgrades in an additional seventeen schools.
- In order to assist the District in the management of district assets, a proposed five-year life-cycle replacement program for major components is included with the MMP. This program provides information to the schools that will assist them in making decisions relative to maintenance expenditures and to allow the schools to undertake longer term planning for the management of the building (Appendix V). The actual projects may vary depending on government funding levels and changes in district priorities.
- Facilities Services partners with the Planning Department to develop a planned and scheduled approach to upgrade district sites to accommodate barrier free access. The plan will insure all students have access to a school that provides barrier free access.
- Facilities Services has allocated funds to pursue modifications at various sites to improve security.

Should any of the schools listed in the 2010-2011 MMP be approved for modernization funding by Alberta Infrastructure, the MMP work scheduled for that school will be reviewed. Wherever possible the work will be included within the applicable modernization.

#### ES:ct

APPENDIX I - Infrastructure Maintenance & Renewal

APPENDIX II - Stakeholders Flow Chart

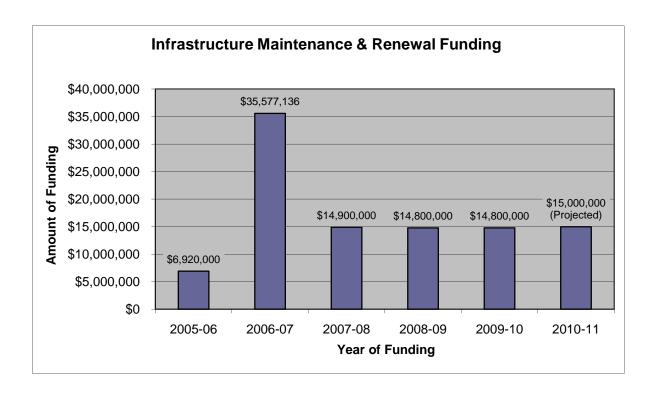
APPENDIX III - Proposed 2010 Major Maintenance Plan (in M\$)

APPENDIX IV - Proposed 2010 - 2011 Major Maintenance Plan

APPENDIX V - Proposed Five-Year Plan Life-Cycle Replacement Program

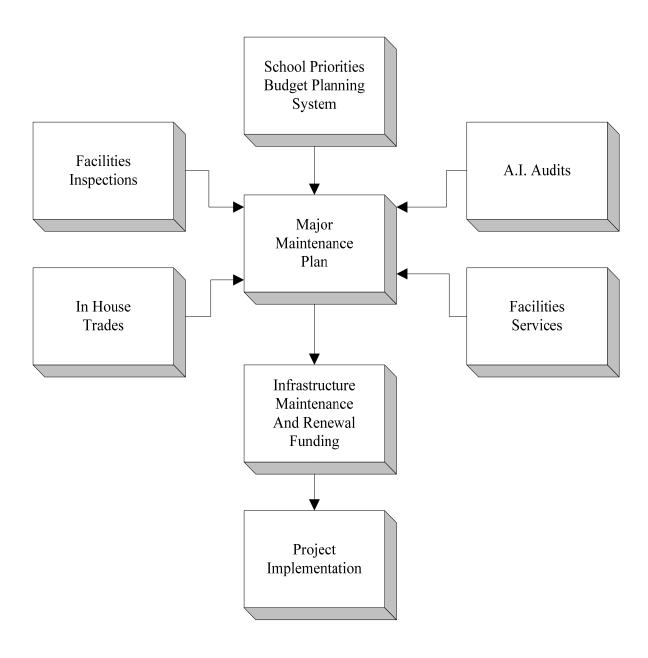


#### INFRASTRUCTURE MAINTENANCE AND RENEWAL



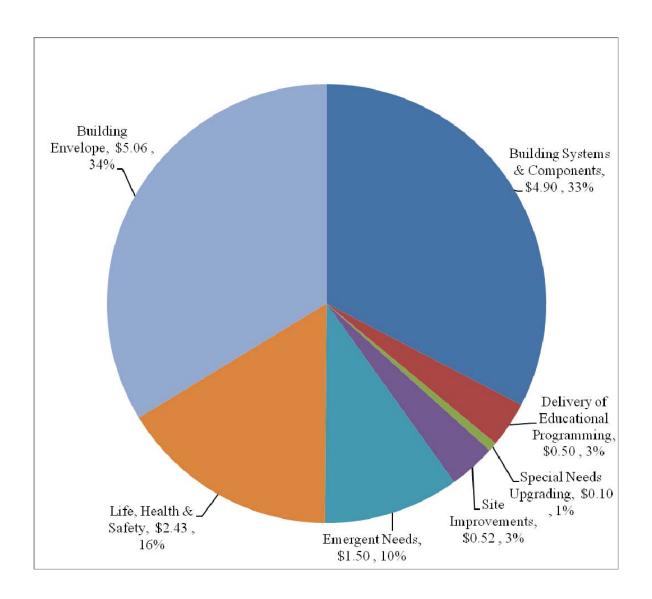


### Stakeholders Flow Chart





# Proposed 2010 Major Maintenance Plan (in M\$)





#### PROPOSED 2010 – 2011 MAJOR MAINTENANCE PLAN

#### Life, Health and Safety

#### Fire Code Upgrades

These are on-going projects to replace obsolete fire alarm systems and other safety provisions in schools such as smoke and heat detectors.

Athlone Donnan Various

Coronation Homesteader

#### Security

This is an on-going program to upgrade school security systems and security enhancements.

Grovenor Replace intrusion alarm system
L. Y. Cairns Replace intrusion alarm system
Michael A. Kostek Replace intrusion alarm system
Rundle Replace intrusion alarm system

Various Security upgrades

Velma E. Baker Replace intrusion alarm system

#### **Intercom System Replacements**

This is an on-going program to upgrade intercom systems.

Bennett Centre Daly Grove McNally

Coronation J. Percy Page

#### Asbestos Removals

These are on-going projects within the asbestos management program and are identified annually based on need. It is intended to continue the management program until all the asbestos in the district's buildings has been removed.

Grace Martin Malcolm Tweddle

Kensington Victoria

#### Washroom Upgrades

These are on-going projects based on need.

Bannerman Ekota Kensington

#### Occupational Health & Safety

Various Confined space identification

Various Install roof access ladders & roof fall protection

Various Facilities inspections

The estimated cost of life and health safety projects is \$2,425,000.

#### **Building Envelope**

#### Re-Roofing

These are on-going projects based on life-cycle replacement and condition assessment.

Balwin Reroof Area 1 – Gymnasium portion

Belmead Reroof Phase 2 - Area 2 Dickinsfield Reroof Phase 2 – Area 2 Reroof Area 3 pods Dunluce Homesteader Reroof pod additions Julia Kiniski Reroof Phase 2 - Area 1 Reroof Phase 2 - Area 1 Keheewin LaPerle Reroof Original building Reroof Area 1 & repair eaves Lymburn

M. E. LaZerte Reroof Area 6

Meyokumin Reroof – roof in skylight
Minchau Reroof Area 1 - sloped area

T. D. Baker Reroof Area 2 Various Roof repairs

#### **Building Exteriors**

Bannerman Repair pod classroom walls
Brookside Upgrade exterior weatherscreen
Julia Kiniski Upgrade exterior weatherscreen
Kameyosek Upgrade exterior weatherscreen
Lauderdale Upgrade exterior weatherscreen
Satoo Upgrade exterior weatherscreen
Steinhauer Upgrade exterior weatherscreen

#### Window Replacement

These are on-going projects based on need.

Jasper Place Replace windows – Phase 6
Laurier Heights Replace windows – Phase 1
Queen Alexandra Replace windows – Phase 2
Queen Elizabeth Replace windows – Phase 5
Ross Sheppard Replace windows – Phase 5

Victoria Replace windows – Eva O. Howard Theatre

#### **Door Replacement**

These are on-going projects based on need.

Abbott Replace exterior doors

Duggan Replace exterior doors and frames

Glengarry Replace exterior doors
Laurier Heights Replace exterior doors

McNally Replace interior doors – Phase 2

T. D. Baker Replace exterior doors

Victoria Replace exterior doors – Eva O. Howard Theatre

The estimated cost of building envelope projects is \$5,056,000.

#### **Building Systems and Components**

Electrical Upgrades

Braemar Replace main electrical service
Grovenor Replace main electrical service

**Energy Conservation** 

Academy at King Edward Upgrade lighting Athlone Upgrade lighting Upgrade lighting Avonmore Upgrade lighting Britannia Coronation Upgrade lighting Upgrade lighting Crestwood Donnan Upgrade lighting Ekota Upgrade lighting Upgrade lighting Garneau Upgrade lighting Greenview Hillview Upgrade lighting Upgrade lighting Homesteader Inglewood Upgrade lighting Julia Kiniski Upgrade lighting Upgrade lighting Killarney Laurier Heights Upgrade lighting Upgrade lighting Lawton

#### Mechanical System and Component Replacements

This is an on-going program to replace mechanical systems and components. This will reduce energy and maintenance costs and provide a better level of temperature control to classrooms.

Abbott Replace hot water boilers

Avalon Replace water main anchor rods
Bennett Centre Replace galvanized water piping
Brookside Replace water main anchor rods
L'Academie Vimy Ridge Remove hot water storage tank
Parkview Replace hot water boilers

Richard Secord Replace water main anchor rods

Various Boiler repairs

Various Install boiler inline filtration

W. P. Wagner Replace chiller

Windsor Park Replace water main anchor rods

### Mechanical System Upgrading

This is an on-going program to replace plumbing, drainage and ventilation systems and to reduce energy consumption through the installation of Direct Digital Control (D.D.C.) systems.

Harry Ainlay

Replace D.D.C. energy management system
Replace D.D.C. energy management system
Riverbend

Replace D.D.C. energy management system
W.P. Wagner

Replace D.D.C. energy management system
Replace D.D.C. energy management system

#### **Architectural Repairs**

This is an on-going program based on need.

McKernan Structural repairs – Phase 2

Various Structural investigation – precast concrete tees

#### **Flooring**

This is an on-going program to replace flooring.

Brightview Replace flooring Caernarvon Replace flooring

Dan Knott Replace flooring – Phase 2
Duggan Replace flooring – Phase 2

Elmwood Replace flooring
Glengarry Replace flooring
Jasper Place Replace flooring

Jasper Place Replace flooring – Gymnasium hardwood

Keheewin Replace flooring
Kirkness Replace flooring
L.Y. Cairns Replace flooring

W.P. Wagner Replace flooring – Gymnasium hardwood

The estimated cost of building systems and components projects is \$4,897,000.

#### **Delivery of Educational Programming**

Afton Replace countertops and sinks in fourteen classrooms
Dan Knott Upgrade interior finishes – main entrance and library

McNally Replace lockers – second floor
Riverbend Upgrade home economics
Stratford Upgrade ceilings in lower floor
Vernon Barford Replace operable partition

The estimated cost of educational programming is \$504,000.

#### Wheelchair Accessibility and Special Needs Upgrading

These projects include the provision of elevators, wheelchair ramps and other specific needs.

Various Modifications to accommodate barrier free access

The estimated cost of special needs upgrading is \$100,000.

#### **Site Improvements**

These projects include the provision of, or the improvement to, site drainage, drop-off lanes, parking lots and paved play areas.

Afton Upgrade asphalt parking area

Jasper Place Upgrade asphalt parking area

Laurier Heights Upgrade asphalt parking area

Londonderry Upgrade student drop-off

M. E. LaZerte Upgrade asphalt parking area

Rio Terrace Upgrade asphalt parking area

Thorncliffe Upgrade asphalt parking area

Various Upgrade asphalt areas and sidewalks

W. P. Wagner Replace concrete sidewalks Youngstown Upgrade asphalt parking area

The estimated cost for site improvements is \$518,000.

#### **Emergent Needs**

In addition to the project categories listed above, emergent replacement of building components such as furnace heat exchangers, hot water tanks and water lines are dealt with on an emergent basis.

Various

The annual budgeted cost for emergent projects is approximately \$1,500,000.

### Proposed 2010 - 2011 Major Maintenance Plan - Alphabetical Listing

School Project Description

Abbott Replace exterior doors
Abbott Replace hot water boilers

Academy at King Edward Upgrade lighting

Afton Replace countertops & sinks in 14 classrooms

Afton Site – upgrade concrete sidewalks

Athlone Fire code upgrading
Athlone Upgrade lighting

Avalon Replace water main anchor rods

Avonmore Upgrade lighting

Balwin Reroof Area 1 – gymnasium portion

Bannerman Repair pod classroom walls

Bannerman Upgrade washrooms
Belmead Reroof Phase 2 area 2

Bennett Centre Replace galvanized water piping

Bennett Centre Replace intercom system

Braemar Replace main electrical service
Brightview Replace flooring – general office

Britannia Upgrade lighting

Brookside Replace water main anchor rods
Brookside Upgrade exterior weatherscreen

CaernarvonReplace flooringCoronationFire code upgradingCoronationReplace intercom system

Coronation Upgrade lighting Crestwood Upgrade lighting

Daly Grove Replace intercom system
Dan Knott Replace flooring – Phase 2

Dan Knott Upgrade interior finishes – main entrance & library

DickinsfieldReroof Phase 2 area 2DonnanFire code upgradingDonnanUpgrade lighting

Duggan Replace exterior doors & frames
Duggan Replace flooring – Phase 2

Dunluce Reroof Area 3 pod
Ekota Upgrade lighting
Ekota Upgrade washrooms

Elmwood Replace flooring – ISP room east classrooms & library

Garneau Upgrade lighting
Glengarry Replace exterior doors

Glengarry Replace flooring – conference rooms

Grace Martin Asbestos abatement Greenview Upgrade lighting

Grovenor Replace main electrical service
Grovenor Replace security system

Harry Ainlay Replace energy management system

### School Project Description

Hillview Upgrade lighting
Homesteader Fire code upgrading
Homesteader Reroof pod additions
Homesteader Upgrade lighting
Inglewood Upgrade lighting

J. Percy Page Replace intercom system

Jasper Place Replace flooring

Jasper Place Replace gymnasium hardwood floor – east gym

Jasper Place Replace windows –Phase 6

Jasper Place Site – foam jack exterior concrete walks – tower area

Julia Kiniski Reroof Phase 2 Area 1

Julia Kiniski Upgrade exterior weatherscreen

Julia Kiniski Upgrade lighting

Kameyosek Upgrade exterior weatherscreen

Keheewin Replace flooring
Keheewin Reroof Phase 2 Area 1
Kensington Asbestos abatement
Kensington Upgrade washrooms
Killarney Upgrade lighting
Kirkness Replace flooring

L.Y. Cairns Repair floor – foam jack various areas

L.Y. Cairns Replace security system

L'Academie Vimy Ridge Academy

Remove hot water storage tank
Reroof original building

LaPerle Reroof original building
Lauderdale Upgrade exterior weatherscreen

Laurier Heights
Replace exterior doors
Laurier Heights
Replace windows –Phase 1
Laurier Heights
Site – replace main entrance stair

Laurier Heights Upgrade lighting

Lawton Replace energy management system

Lawton Upgrade lighting

Londonderry Site – repair asphalt parking area Lymburn Reroof area 1 & repair eaves

M.E. LaZerte Reroof area 6

M.E. LaZerte Site – replace concrete sidewalk

Malcolm Tweddle Asbestos abatement

McKernan Structural repairs – Underpinning Phase 2

McNally Replace intercom system

McNally Replace interior doors - Phase 2 McNally Replace lockers – second floor

Meyokumin
Michael A. Kostek
Replace security system
Minchau
Reroof area 1 sloped area
Parkview
Replace hot water boilers
Queen Alexandra
Replace windows –Phase 2
Queen Elizabeth
Replace windows –Phase 5
Richard Secord
Replace water main anchor rods

#### School Project Description

Rio Terrace Site – replace main entrance stair
Riverbend Replace energy management system

Riverbend Upgrade home economics
Ross Sheppard Replace windows –Phase 5
Rundle Replace security system

Rutherford Replace energy management system
Satoo Upgrade exterior weatherscreen
Steinhauer Upgrade exterior weatherscreen
Stratford Upgrade ceilings in lower floor

T.D. Baker Replace exterior doors

T.D. Baker Reroof area 2

Thorncliffe Replace energy management system
Thorncliffe Site – repair asphalt parking area

Various Boiler repairs

Various Confined space identification

Various Facilities inspections
Various Fire code upgrading

Various Install boiler in-line filtration

Various Install roof access ladders & roof fall protection
Various Modifications to accommodate barrier free access

Various Roof repairs
Various Security upgrades

Various Structural investigation – precast concrete tees

Various Upgrade asphalt areas & sidewalks

Velma E. BakerReplace security systemVernon BarfordReplace operable partitionVictoriaAsbestos abatement

Victoria Replace exterior doors – Eva O. Howard Theatre Victoria Replace windows – Eva O. Howard Theatre

W.P. Wagner Repair gymnasium hardwood floor

W.P. Wagner Replace chiller

W.P. Wagner

W.P. Wagner

W.P. Wagner

Site – replace concrete sidewalk

Windsor Park

Replace water main anchor rods

Youngstown

Site – repair asphalt parking area



#### PROPOSED FIVE-YEAR PLAN FOR LIFE-CYCLE REPLACEMENT

The ability to undertake the projects listed is dependent on government funding and emergent issues. The five-year plan has been revised to reflect district needs identified by Facilities Services inspections and Alberta Infrastructure facility audits.

#### Life, Health and Safety

#### Fire Code Upgrades

This is an on-going program to upgrade the district's fire alarm systems and other safety provisions in schools such as smoke and heat detectors.

2011	2012	2013	2014	2015
Crestwood	Belmont	Greenview	Baturyn	Bannerman
Grovenor	Dunluce	Meyokumin	Hillview	Keheewin
Inglewood	Lorelei	Ormsby	Meyonohk	Menisa
Lauderdale	Riverbend	Sakaw	•	

#### Security Upgrade

This is an on-going program to upgrade school security systems and security enhancements.

2011	2012	2013	2014	2015
Baturyn	D. S. MacKenzie	Dunluce	Donnan	Brookside
Forest Heights	Edith Rogers	Lorelei	Hardisty	Julia Kiniski
Kate Chegwin	L'Academie Vimy	Meyokumin	S. Bruce Smith	McArthur
Queen Elizabeth	Ridge Academy	Ross Sheppard		Princeton
Westglen	Satoo			Scott Robertson
	Weinlos			

#### **Intercom System Replacements**

This is an on-going program to upgrade school intercom systems and provide systems in schools that do not currently have one.

2011	2012	2013	2014	2015
Malcolm Tweddle	Britannia	Avalon	Britannia	Aldergrove
Parkview	Edith Rogers	Braemar	Brookside	L'Academie Vimy
Queen Elizabeth	L. Y. Cairns	Crestwood	Earl Buxton	Ridge Academy
S. Bruce Smith	Mary	Ellerslie Jr.	Lee Ridge	McKernan
Westmount	Butterworth	Harry Ainlay	Riverdale	W.P. Wagner
	Ross Sheppard			-

#### Asbestos Removal

These are on going projects within the asbestos management program and are identified annually based on the district's Hazardous Materials Management Program. It is intended to continue this program until all the asbestos in the district's buildings has been removed.

2011	2012	2013	2014	2015
Kameyosek	Gold Bar	Harry Ainlay	Hardisty	Caernarvon
Kildare	Greenfield	Hillcrest	Kenilworth	Crestwood
McNally	Lauderdale	Lendrum	Mee-Yah-Noh	L.Y. Cairns
Queen	Queen	Queen	Queen	Strathearn
Elizabeth Ph 1	Elizabeth Ph 2	Elizabeth Ph 3	Elizabeth Ph 4	
			W.P. Wagner	

#### Washroom Upgrades

This is an on-going program based on need and includes replacement of sinks and faucets or complete washroom upgrades.

2011	2012	2013	2014	2015
Bennett Centre Rundle	Brookside Elmwood Sweet Grass	Centennial Rutherford	D.S. MacKenzie Londonderry	Lansdowne McNally

### **Building Envelope**

### Re-Roofing

This is an on-going program based on life-cycle replacement and condition assessment.

2011	2012	2013	2014	2015
Bannerman	Delwood	Callingwood	Baturyn	Braemar
Brookside	J. Percy Page	Delwood	Belmont	Crestwood
D.S. MacKenzie	Londonderry	Dunluce	Greenview	Brander Gardens
Dan Knott	McLeod	Ekota	Hillview	Keheewin
Evansdale	Queen Elizabeth	J. Percy Page	Menisa	Mary Butterworth
J. Percy Page	Richard Secord	Ottewell	Meyonohk	John A. McDougall
Londonderry	Ross Sheppard	Pollard Meadows	Ormsby	S. Bruce Smith
Richard Secord	Scott Robertson	Rideau Park	Overlanders	Sifton
Tipaskan	Steele Heights	Glengarry	Riverdale	Victoria
Victoria 150 Wing	McNally	Steele Heights	Sakaw	Vernon Barford
W.P. Wagner	W.P. Wagner	W.P. Wagner	W.P. Wagner	W.P. Wagner
Westlawn	Westbrook	Westlawn		

### Window Replacement

This is an on-going program based on need.

2011	2012	2013	2014	2015
Ross Sheppard	Forest Heights	Donnan	Bennett Centre	Not
Ph 6	Old Scona	Mill Creek	Kensington	identified
Strathcona Ph 5	Ross Sheppard		Lawton	at this time
	Ph 7		Scott Robertson	
	Strathcona Ph 6			

Exterior Door Replacement
This is an on-going program based on need.

2011	2012	2013	2014	2015
Beacon Heights	Dickinsfield	Allendale	Grovenor	None
Hardisty	Killarney	L.Y. Cairns	Londonderry	identified
Riverbend	McArthur	R.J. Scott	McNally	at this time
Thorncliffe			Montrose	

### **Building Systems and Components**

## Mechanical System and Component Replacements

This is an on-going program to replace or upgrade mechanical systems and components that cannot sustain comfort levels in the classroom.

2011	2012	2013	2014	2015
A 1 .1	D-1	Commercian	D	D -14
Aldergrove	Belgravia	Coronation	Bannerman	Delton
Baturyn	Bisset	Kenilworth	D.S. MacKenzie	Prince Charles
Belmead	Dan Knott	Lorelei	Delwood	Princeton
Brander Gardens	George H. Luck	Mary Butterworth	Malmo	Stratford
Calder	Grovenor	Mayfield	McNally	
Dunluce	Inglewood	Ormsby	Mee-Yah-Noh	
Ekota	Jasper Place	Pollard Meadows	Mill Creek	
Fraser	Basement	Queen Elizabeth	Sherwood	
Hillcrest	Jasper Place	Richard Secord	Strathcona	
Homesteader	Tower	Sakaw		
LaPerle	Lago Lindo	Velma E. Baker		
Rutherford	Lansdowne	W.P. Wagner		
Riverbend	M.E. LaZerte			
Steele Heights	Meadowlark			
Thorncliffe	Satoo			
Virginia Park	Sifton			
Westbrook	Sweet Grass			
Westlawn	Windsor Park			

### Replacement of Mechanical Systems Controls

This is an on-going program to replace failed or obsolete energy management systems.

2011	2012	2013	2014	2015
Laurier Heights Prince Charles Ross Sheppard	Oliver Queen Elizabeth Spruce Avenue Rosslyn	Lauderdale Menisa Minchau Northmount Rutherford	Avalon Crawford Plains John Barnett Mayfield Tipaskan	Dickinsfield Dovercourt Ellerslie McKee Youngstown

### **Electrical Systems Upgrades**

2011	2012	2013	2014	2015
Lendrum	Mount Royal	Lansdowne	None identified at this time	None identified at this time

#### Weatherscreen Upgrades

2011	2012	2013	2014	2015
Keheewin	Ormsby	Menisa	None	None identified
Minchau	Sifton	Weinlos	identified at	at this time
Pollard Meadov	WS		this time	

#### **Flooring**

This is an on-going program to replace flooring that is no longer maintainable.

2011	2012	2013	2014	2015
Britannia	Jasper Place Ph 2	Avonmore	Abbott	Centennial
Centennial	Lansdowne	Eastglen	Braemar	Donnan
Clara Tyner	Lauderdale	Jasper Place Ph II	Clara Tyner	Glengarry
Harry Ainlay	McDougall	L'Académie Vimy	Delton	Hardisty
J.A. Fife	Portable	Ridge Academy	Eastglen Ph 3	Lawton
Jasper Place	Classrooms	Parkview	Jasper Place Ph 3	Ottewell
L'Academie	Queen Elizabeth	Strathcona Ph 2	L'Academie Vimy	Parkallen
Vimy Ridge	S. Bruce Smith	Waverley	Ridge Academy	Queen Elizabeth
Lago Lindo	Strathcona Ph 1		McLeod	
Lawton			S. Bruce Smith	
Malmo			Strathcona Ph 3	
Northmount				
Old Scona				
Rutherford				
Satoo				
Steinhauer				

### Wheelchair Accessibility and Special Needs Upgrading

These projects typically include the provision of elevators, wheelchair ramps and other specific needs. It is intended to focus on the needs of specific district sites in this and future years until all district sites have been upgraded.