Overview 4.1

Summary
This chapter contains an overview of residential structural components, quality of construction, main dwellings, and construction types. It also provides adjustments such as wall height, plumbing, heating and cooling, fireplaces and hillside that can be made to residential buildings and structures.

The replacement cost new for residential buildings and structures valued by the square foot method may be determined in accordance with the occupancy codes, rate schedules, and calculation procedures in Chapters 5 and 6.

Use of Descriptions and Specifications

Portions of this chapter are not available for viewing due to licensing with Marshall and Swift. Therefore the classification guidelines, rates and factors etc. have been intentionally left blank.

Quality of Construction

Overview 4.1

Use of Photographs
The photographs for each occupancy code are illustrative of construction types and quality classifications for various residential building and structure codes, and do not represent any specific building or structure, except as they are indicative of the average or typical of all the buildings or structures represented by the photograph.

Exterior photographs of residential building and structure occupancy codes are indicative of the average or typical construction type and quality classification only to the extent as can be determined from the exterior of a building or structure. Construction types and quality classifications may vary from that illustrated by the photograph where the descriptions or specifications for the classification of residential buildings and structures are indicative of a different construction type or quality classification.

Portions of this chapter are not available for viewing due to licensing with Marshall and Swift. Therefore the classification guidelines, rates and factors etc. have been intentionally left blank.

This information is available for purchase by contacting:

Technical Standards and Policy Division
Saskatchewan Assessment Management Agency
200 – 2201 – 11th Avenue
Regina, Saskatchewan S4P 0J8

Phone: (306) 924-8000
Toll Free: 1-800-667-SAMA (7262)
Fax: (306) 924-8070

Email: info.request@sama.sk.ca

Web Site: http://www.sama.sk.ca

Structural Components 4.2

General
The replacement cost of a standard residential building is the sum of the component costs.

The component costs are as follows:
- Building Structure
- Heating /Cooling
- Plumbing
- Basement

The component costs reflect all required materials and labour for each installation, a share of all associated fees and costs, and contractors profit and overhead.

All component costs are calculated on a square foot basis of the effective area, except for plumbing fixtures when there is a deviation from the standard count that is allowed for each quality, and fireplaces, that are added as miscellaneous features.

The square foot rates are may be further modified by a wall height adjustment, a heating/cooling adjustment and a hillside adjustment.

Building Structure
The basic structure costs include the foundation, frame, exterior walls, floor structure, roof structure, partitioning, interior wall and floor finish, electrical, heating, and cabinets.

The foundation costs consider all concrete or masonry piers, footings or pads that support posts or columns and continuous footing or perimeter foundation walls. The foundation material is typically reinforced concrete, formed and poured in place.

The foundation supports the foundation wall or basement wall, or the structure above when no basement is present.

The exterior wall costs consider the complete exterior wall that includes windows, doors, basic wall materials, exterior wall lining and the interior finish in most of the sections.

An appropriate typical cost of insulation in the roof and exterior wall is included in the structure.

Interior finish costs include the costs for partitions, doors, stairs, closets, and as well as ceiling finish and floor finish. Each residential building type and quality includes a specific interior finish rate which relates to the amount of interior partitions, the number of interior doors, the amount of hardware, the amount of interior built-ins, the amount of ceiling finish and floor finishing as typically found in each structure.

The floor structure costs consider the horizontal floor framing members and, the subfloor material or decking. In a concrete on grade floor, the costs include the gravel base, vapour barrier, reinforcement, and placement of the concrete.

The roof structure costs include the structural members, trusses and girders, the roof decking or sheathing and the roof cover. In a wood rafter roof, the costs include the rafters, decking, insulation, vapour barrier, gutters and down spouts, and composition shingles.

Electrical costs reflect the costs of services, distribution, quality and number of fixtures and receptacles for lighting and convenience outlets.

Heating/Cooling
Heating costs include the cost of a heating system, materials and labour in the installation, costs of roughing-in the required utilities and vents, and the contractor's profit and overhead.

The air conditioning rate includes the costs of the unit, materials and labour in installations of central air conditioning systems, costs of roughing-in the required utilities and vents, and share of the contractor's profit and overhead.

Plumbing
Plumbing costs include the complete plumbing installation, the rough-in of water lines, drain and vent system to each fixture, plus the fixture and its installation. Each main dwelling has a standard number of plumbing fixtures, which varies by quality, included in the basic residence cost.

Basement
The basement rates consider the costs of concrete walls that support residential structures. The rates include costs for site preparation, excavation and backfill, forming, placing and finishing of concrete.

Main Dwellings 4.3

Description
Main dwelling types include single family dwellings, multi-family dwellings (semi-detached; townhouse), summer cottages, A-Frame summer cottages and manufactured homes.

When there is a main dwelling on a property, then the quality of all residential buildings and structures on the property are determined by the quality of the main dwelling. An exception may be made if a detached garage is of significantly better or poorer quality than the main dwelling.

Exceptions

Detached Garage Significantly Different from the Main Dwelling
When a detached garage is of significantly better or poorer quality than the main dwelling then the following detached garage qualities may be used:

Quality of: Single Family or Multi-Family Dwelling; A-Frame Summer Cottage; Manufactured Home	**Quality of: Detached Garage**
Very Low	Average; Good; Very Good; Excellent
Low	Average; Good; Very Good; Excellent
Good	Very Low; Low; Fair
Very Good	Very Low; Low; Fair
Excellent	Very Low; Low; Fair

Quality of: Summer Cottage	**Quality of: Detached Garage**
Low	Average; Good; Very Good; Excellent
Fair	Average; Good; Very Good; Excellent
Good	Very Low; Low; Fair

No Main Dwelling on a Property
When there is no main dwelling on a property, then a single overall quality is determined for all residential buildings and structures on a property

Construction Types 4.4

This section describes different construction types and adjustments that may be applied to single family dwellings, multi-family dwellings (semi-detached; townhouse), and summer cottages.

Description
The Living Area Factor, which varies by construction type, is applied to the main floor living area (building footprint) to determine the Total Living Area.

The Effective Area Factor, which also varies by construction type, is used to recalibrate multi-story dwellings to a 1-Storey equivalent for application of a square foot rate.

The Total Living Area is multiplied by the Effective Area Factor to determine the Effective Area. The 1-Storey rate is then applied to the Effective Area.

Examples of Effective Area and Total Living Area Calculations

Example 1

1,000 sq. ft. 1-Storey single family dwelling (Fair Quality)

Total Living Area calculation: Main floor living area x Living Area Factor
Main floor living area: 1,000 sq. ft.
Living Area Factor: 1.0
1,000 x 1.0 = 1,000 sq. ft. Total Living Area

Effective Area calculation: Total Living Area x Effective Area Factor
Total Living Area = 1,000 sq. ft.
Effective Area Factor: 1.000
1,000 x 1.000 = 1,000 sq. ft. Effective Area

RCN calculation: Rate x Effective Area
1-Storey Rate: $ (before Cost Factors; based on the main floor living area)
Effective Area: 1,000 sq. ft.
$ x 1,000 = $ RCN

Example 2

1,000 sq. ft. 2-Storey single family dwelling (Fair Quality)

Total Living Area calculation: Main floor living area x Living Area Factor
Main floor living area: 1,000 sq. ft.
Living Area Factor: 2.0
1,000 x 2.0 = 2,000 sq. ft. Total Living Area

Effective Area calculation: Total Living Area x Effective Area Factor
Total Living Area = 2,000 sq. ft.
Effective Area Factor: 0.825
2,000 x 0.825 = 1,650 sq. ft. Effective Area

RCN calculation: Rate x Effective Area
1-Storey Rate: $ (before Cost Factors; based on the main floor living area)
Effective Area: 1,650 sq. ft.
$ x 1,650 = $ RCN

Example 3

1,000 sq. ft. 2-Storey single family dwelling and 1,000 sq. ft. 1- Storey single family dwelling (Fair Quality)

Total Living Area calculation: Main floor living area x Living Area Factor
Main floor living area: 2,000 sq. ft.
Living Area Factor: 1.0 (for 1-Storey)
Living Area Factor: 2.0 (for 2-Storey)
1,000 x 1.0 = 1,000 sq. ft. Total Living Area (for 1-Storey)
1,000 x 2.0 = 2,000 sq. ft. Total Living Area (for 2-Storey)
Total = 3,000 sq. ft. Total Living Area (for 1-Storey and 2-Storey)

Effective Area calculation: Total Living Area x Effective Area Factor
1,000 sq. ft. Total Living Area (for 1-Storey)
2,000 sq. ft. Total Living Area (for 2-Storey)

Effective Area Factor: 1.000 (for 1-Storey)
Effective Area Factor: 0.825 (for 2-Storey)
1,000 x 1.000 = 1,000
2,000 x 0.825 = 1,650
Total = 2,650 sq. ft. Effective Area

RCN calculation: Rate x Effective Area
1-Storey Rate: $ (before Cost Factors; based on the main floor living area)
Effective Area: 2,650 sq. ft.
$ x 2,650 = $ RCN

Construction Types 4.4

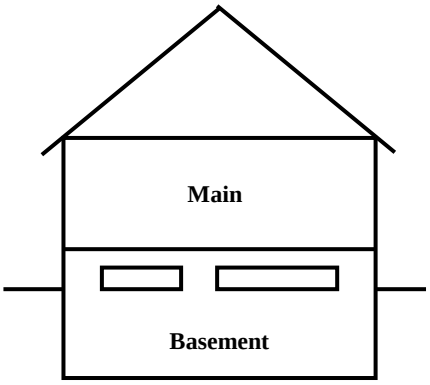
Single Family Dwellings and Summer Cottages

Construction Type Description	Living Area Factor	Effective Area Factor Single Family Dwellings & Summer Cottages
1-Storey Has one level of living area, typically 1' to 2' above grade. Entry is at main level. Has an unfinished attic.	1.0	1.000
Bi-Level Has two levels of living area with a lower level which may be partially unfinished. A distinguishing characteristic is its split-foyer entry. Entry is at grade level.	1.0	1.050
Split-Level Has three levels of living area: the lower level is immediately below the upper level as in a 2-storey, and the intermediate level, adjacent to the other levels, is built on a grade approximately 4' higher than that of the lower level.	1.0	1.150
1 ½-Storey Same as 1-Storey, except has adequate ceiling height in finished second level. Characterized by a steep roof and dormers, the area of the upper level is usually 40% to 90% of the lower level.	1.5	0.860
2-Storey Has two levels of living area, one at grade and one above grade, both with full ceiling heights. The area of each floor is approximately the same. Has an unfinished attic.	2.0	0.825
2½-Storey Same as 2-Storey, except has adequate ceiling height in finished third level. Characterized by a steep roof and dormers, the area of the upper level is usually 40% to 90% of the second level.	2.5	0.756
3-Storey Has three levels of living area, one at grade and two above grade, all with full ceiling heights. The area of each floor is approximately the same. Has an unfinished attic.	3.0	0.747
3½-Storey Same as 3-Storey, except has adequate ceiling height in finished fourth level. Characterized by a steep roof and dormers, the area of the upper level is usually 40% to 90% of the third level.	3.5	0.723

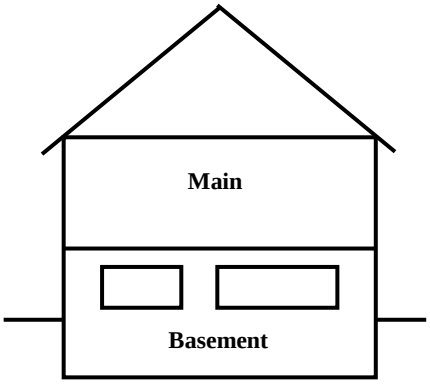
Multi-Family Dwellings (Semi-Detached; Townhouse)

Construction Type Description	Living Area Factor	Effective Area Factor Multi-Family Dwellings
1-Storey Has one level of living area, typically 1' to 2' above grade. Entry is at main level. Has an unfinished attic.	1.0	1.000
Split-Level Has three levels of living area: the lower level is immediately below the upper level as in a 2-storey, and the intermediate level, adjacent to the other levels, is built on a grade approximately 4' higher than that of the lower level.	1.0	1.150
1 ½-Storey Same as 1-Storey, except has adequate ceiling height in finished second level. Characterized by a steep roof and dormers, the area of the upper level is usually 40% to 90% of the lower level.	1.5	0.840
2-Storey Has two levels of living area, one at grade and one above grade, both with full ceiling heights. The area of each floor is approximately the same. Has an unfinished attic.	2.0	0.835

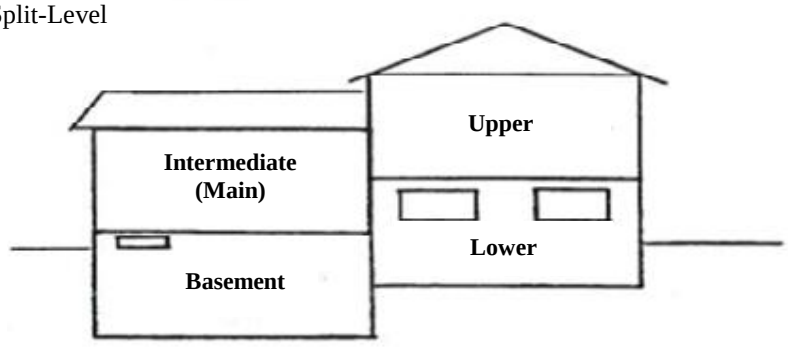
1-Storey



Bi-level



Split-Level



Wall Height 4.5

Description
This section describes the wall height adjustment for residential dwellings, summer cottages manufactured homes and manufactured home extensions.

Application
A wall height adjustment is applied to the following buildings and structures:

- Single family dwelling,
- Multi-family dwelling (Semi-Detached; Townhouse),
- Summer cottage,
- Manufactured home,
- Manufactured home extension.

The base interior wall height is 8' except for Excellent quality single family dwellings where the base is 10'. The wall height adjustment is determined by calculating the height from the top of the floor to the top of the exterior wall. For unusual or high pitched roofs, the effective wall height may be calculated by dividing the cubic interior area of the building by the floor area.

Wall Height Adjustment for Single Family Dwellings (excluding Excellent quality), Multi-Family Dwellings, Summer Cottages, Manufactured Homes and Manufactured Home Extensions

Wall Height (ft.)	Factor
≤ 5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
≥ 24	

Wall Height 4.5

Wall Height Adjustment for Excellent Quality Single Family Dwellings

Wall Height (ft.)	Factor
≤ 5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
≥ 24	

Portions of this chapter are not available for viewing due to licensing with Marshall and Swift. Therefore the classification guidelines, rates and factors etc. have been intentionally left blank.

Plumbing 4.6

Description
This section describes the standard plumbing fixture count for different main dwellings and the adjustment for when there is a deviation from the standard count.

Application
Plumbing fixtures are valued as a miscellaneous adjustment. Each quality of main dwelling has a standard number of plumbing fixtures included in the basic residence cost. Common plumbing fixtures include: sinks, toilets, shower stalls, tubs and water heaters. An adjustment may be made for any deviation from the standard count.

All plumbing fixtures on the property are included in the count for the main dwelling.

Single Family Dwellings

Quality	Standard Count	Adjustment +/- $/fixture
Excellent		
Very Good		
Good		
Average		
Fair		
Low		
Very Low		

Multi-Family Dwellings (Semi-Detached; Townhouse)

Quality	Standard Count	Adjustment +/- $/fixture
Excellent		
Very Good		
Good		
Average		
Fair		

Summer Cottages

Quality	Standard Count	Adjustment +/- $/fixture
Good		
Average		
Fair		
Low		

Portions of this chapter are not available for viewing due to licensing with Marshall and Swift. Therefore the classification guidelines, rates and factors etc. have been intentionally left blank.

A-Frame Summer Cottage

Quality	Standard Count	Adjustment +/- $/fixture
Good		
Average		
Fair		

Manufactured Homes

Quality	Standard Count	Adjustment +/- $/fixture
Good		
Average		
Fair		

Heating and Cooling 4.7

Description
Heating is included in the basic residence cost of the following main dwellings and residential structures:

- single family dwelling,
- multi-family dwelling,
- summer cottage,
- A-frame summer cottage,
- manufactured home,
- manufactured home extension.

Adjustments
An adjustment may be made to the square foot rate when there is no heating or where there is heating and cooling combined. The rates vary by the quality of the main dwelling.

Single Family Dwelling

Quality	No Heating ($/sq. ft.)	Heating & Cooling ($/sq. ft.)
Excellent		
Very Good		
Good		
Average		
Fair		
Low		
Very Low		

Multi-Family Dwellings (Semi-Detached; Townhouse)

Quality	No Heating ($/sq. ft.)	Heating & Cooling ($/sq. ft.)
Excellent		
Very Good		
Good		
Average		
Fair		

Summer Cottages

Quality	No Heating ($/sq. ft.)	Heating & Cooling ($/sq. ft.)
Good		
Average		
Fair		
Low		

Portions of this chapter are not available for viewing due to licensing with Marshall and Swift. Therefore the classification guidelines, rates and factors etc. have been intentionally left blank.

Heating and Cooling 4.7

A-Frame Summer Cottage

Quality	No Heating ($/sq. ft.)	Heating & Cooling ($/sq. ft.)
Good		
Average		
Fair		

Manufactured Homes and Manufactured Home Extensions

Quality	No Heating ($/sq. ft.)	Heating & Cooling ($/sq. ft.)
Good		
Average		
Fair		

Fireplaces 4.8

Summary
This section describes the rates for fireplaces.

Application
Fireplaces are valued as a miscellaneous adjustment. The rates vary by the quality of the main dwelling that the fireplace is in.

Fireplace Rates

Single Family, Multi-Family Dwellings (Semi-Detached; Townhouse), Manufactured Homes

Quality	($/unit)
Excellent	
Very Good	
Good	
Average	
Fair	
Low	
Very Low	

Summer Cottages, A-Frame Summer Cottages

Quality	($/unit)
Good	
Average	
Fair	
Low	

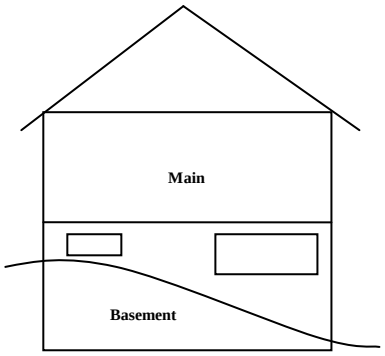
Portions of this chapter are not available for viewing due to licensing with Marshall and Swift. Therefore the classification guidelines, rates and factors etc. have been intentionally left blank.

Hillside 4.9

Summary
This section describes the hillside adjustment.

Description
The hillside adjustment is applied to single family dwellings, multi-family dwellings (semi-detached; townhouse) and summer cottages, where part of the basement is approximately 6 to 7 feet in the ground and part is almost completely exposed with large windows, and/or patio doors.

Hillside



Hillside Adjustment Rate ($/sq. ft.):

Portions of this chapter are not available for viewing due to licensing with Marshall and Swift. Therefore the classification guidelines, rates and factors etc. have been intentionally left blank.