



SHP Class D Estimate Report

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Introduction

This report outlines the Class D estimate for ten standard designs created for the BC Ministry of Housing Standardized Designs Catalogue. The estimate is based on floor plans of the 10 designs and incorporates several key assumptions. A project matrix compares each design's key elements, and a cost variable breakdown is provided for each, culminating in the total estimate for each project.

A Class D budget is a preliminary cost estimate based on limited information, typically floor plans and key assumptions, providing an approximate cost range for a project to aid in early-stage decision-making.

Assumptions

1. Estimate created from floor plans
2. No soft cost included in budget
3. Utility connections not included
4. No existing house or buildings.
5. Rock blasting or shoring is not required.
6. Gravity-fed storm and sewer systems.
7. Roof area assumed to be 20% larger than the largest level floor area.
8. Pad mounted transformers (PMT) or electrical upgrades not calculated.
9. This cost estimate is assuming Vancouver as the base case geographical location as it is the location that we are most familiar with. Cost adjustments based on geographical location are covered in the Regional Review section.

Key Variables Comparison

The project matrix compares the following key variables for each of the ten designs:

	Unit	QUADPLEX 01	QUADPLEX 02	TOWNHOUSE	TRIPLEX 01	ADU 01	ADU 02	ADU 03	DUPLEX 01	DUPLEX 02	DUPLEX 03
TYPE:		Quadplex	Quadplex	Townhouse	Triplex	ADU	ADU	ADU	Duplex	Duplex	Duplex
UNIT COUNT:	each	4	4	4	3	1	1	1	2	2	2
NO. OF BEDROOMS:	each	8	12	12	6	2	1	3	4	8	
NO. OF STORIES:	each	3	3	3	3	2		2	2	3	
PARKING SPOTS:	each	4									
L1:	sf	1,640	2,094	2,070	1,032	525	750	839	1,028	1,028	1,048
L2:	sf	1,824	2,094	2,070	1,032	525		876	1,028	1,028	1,048
L3:	sf	1,824	1,048	1,035	1,032					1,028	524
TOTAL SQUARE FOOTAGE:	sf	5,288	5,236	5,175	3,096	1,050	750	1,715	2,056	3,084	2,620
Build Sqr Ft	sf	5,288	5,236	5,175	3,096	1,050	750	1,715	2,056	3,084	2,620
L1: Exterior Perimeter	lf	260	305	300	132	95	105	118	132	132	162
L2: Exterior Perimeter	lf	260	305	300	132	95		120	132	132	162
L3: Exterior Perimeter	lf	260	188	180	132					132	92
Concrete Volume	cu.f	1,127	1,322	1,300	572	412	455	511	572	572	702
Flat Concrete	sf	1,640	2,094	2,070	1,032	525	750	839	1,028	1,028	1,048
Openings - Windows	each	80	52	82	35	13	6	13	24	32	40
Openings - Exterior Doors	each	8	6	8	9	1	2	2	2	2	3
Garage Doors	each	4	0	0	0	0		1			
Balconies	Each	0	0	0	2	0					
Flooring	sf	5,288	5,236	5,175	3,096	1,050	750	1,715	2,056	3,084	2,620
Stairs	each	64	96	96	64	16		16	32	64	48
Plumbing Fixtures	each	28	36	30	12	6	4	9	10	18	15
Electrical Fixtures	each	32	32	32	24	8	6	8	16	20	18
Kitchens	each	4	4	4	3	1	1	1	2	2	2
Interior Doors	each	16	18	26	9	5	3	6	10	12	13
Millwork Face sqr Ft	sf	1,208	1,208	1,208	800	226	177	341	452	532	432
Counter Top	sf	260	260	260	195	65	118	40	108	108	130
Total Exterior Walls	sf	7,020	7,182	7,020	3,564	1,710	945	2,142	2,376	3,564	3,744
Roof	sf	2,189	2,513	2,484	1,238	775	775	1,051	1,234	1,234	1,258
Earth Works	cu.f	9840	12564	12420	6192	3150	4500	5034	6168	6168	6288
Interior Walls Surface Area	sf	15200	16240	16240	12180	4060	1368	4376	5904	9184	7544

Cost Variables

The following table summarizes the cost variables used to calculate the estimate for each project:

Type	Unit	Materials	Labour	Other
Earth Works	cu.sf	4.00	8.00	
Utilities Installation	per unit			7,500.00
Concrete Footings and Foundation:	per cu.ft	30.00	45.00	3,500.00
Flat Concrete	sf		5.00	2,000.00
Framing:	sf	35.00	30.00	
Roofing:	sf	25.00	15.00	
Openings - Windows	Each	900.00	200.00	
Openings - Exterior Doors	each	1,200.00	300.00	
Garage Doors	each	2,500.00	500.00	
Interior Doors	each	250.00	150.00	
HRV + Heat Pump	per unit	15,000.00	20,000.00	
Plumbing:	sf	10.00	8.00	
Electrical:	sf	9.00	8.00	
Interior Insulation:	sf	2.50	3.00	
Exterior Insulation	sf	3.00	5.50	
Drywall:	Wall Surface	3.00	4.50	
Flooring Wood / Carpet / Tile	sf	8.00	7.00	
Stairs	per step	75.00	50.00	
Painting and Wall Coverings:	Wall Surface	2.50	3.50	
Cabinets	Cabinet Face Sf	65.00	25.00	
Countertops:	sf	90.00	25.00	
Electrical Fixtures	Each	250.00		
Plumbing Fixtures	Each	950.00		
Exterior Cladding:	Exterior Wall sf	14.00	9.00	6,000.00
Exterior Paint and Trim:	Exterior Wall sf	3.50	4.50	
Kitchens				
Bathroom / Showers				
Balconies		40,000.00		
Appliances	per kitchen	12,500.00	2,000.00	

Cost Estimate Summary

The cost estimate for each design is summarized below. The estimates are based on the cost variables applied to the key project variables for each design.

	QUADPLEX 01	QUADPLEX 02	TOWNHOUSE	TRIPLEX 01	ADU 01	ADU 02	ADU 03	DUPLEX 01	DUPLEX 02	DUPLEX 03
Total	2,245,893	2,293,518	2,307,250	1,496,279	555,576	438,866	731,493	950,172	1,236,966	1,162,284
Per Unit	561,473	573,380	576,813	498,760	555,576	438,866	731,493	475,086	618,483	581,142
Per Build sf	425	438	446	483	529	585	427	462	401	444
Build sf	5,288	5,236	5,175	3,096	1,050	750	1,715	2,056	3,084	2,620

Region Review

The regional cost review provides an analysis of square foot costs across various locations, comparing these to the baseline budget for each project type. The high and low cost per square foot from each region were averaged and applied against unit costs to understand regional cost variations.

Square Foot Costs

Region	Low Cost (sq.ft)	% of Baseline	High Cost (sq.ft)	% of Baseline
Vancouver	\$350	74%	\$475	101%
Kelowna	\$325	69%	\$425	90%
Surrey	\$325	69%	\$400	85%
Chilliwack	\$275	58%	\$350	74%
Kamloops	\$275	58%	\$350	74%
Nanaimo & Victoria	\$275	58%	\$425	90%
Prince George	\$275	58%	\$350	74%

Analysis

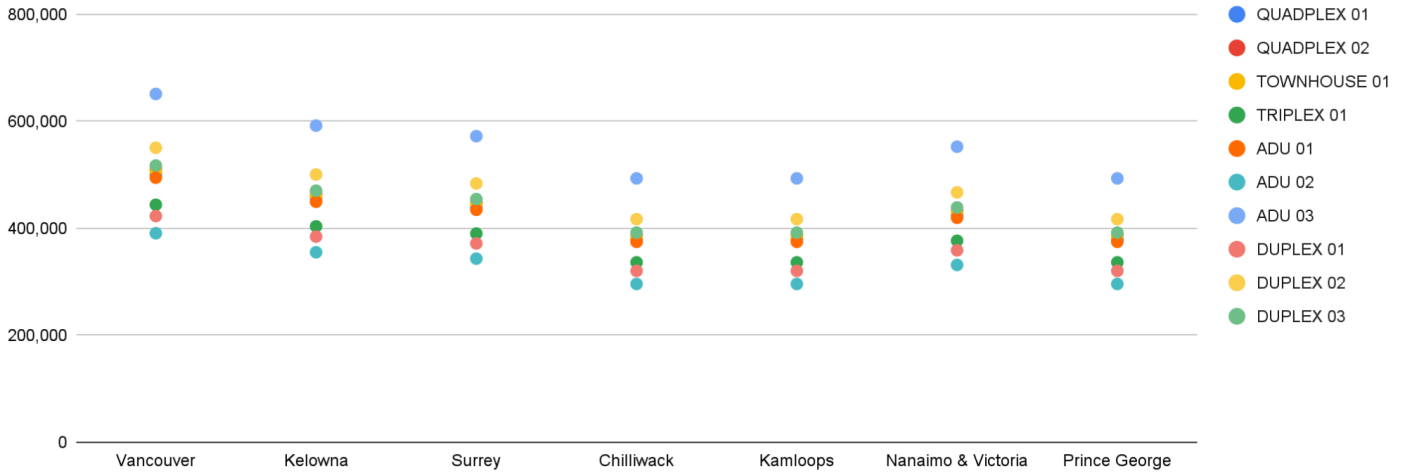
To evaluate the impact of regional cost differences on the baseline budget, we compared the high and low square foot costs from each region to the baseline costs of our project types. This comparison allows us to understand the potential cost fluctuations and adjust the budget accordingly for each region.

Methodology

- Data Collection:** Collected high and low square foot costs from each region.
- Comparison:** Compared these costs to the baseline budget to determine percentage differences.
- Averaging:** Averaged the high and low costs to get an overall cost adjustment factor for each region.
- Application:** Applied these factors against the unit costs to adjust the budget for regional variations.

This regional cost review provides a framework for anticipating and planning for cost differences across different locations, ensuring more accurate budgeting and financial planning for projects in various regions.

AVG Unit Cost by Region



Regional Cost Impact: Construction costs vary significantly across regions, with Vancouver having the highest costs and regions like Prince George, Chilliwack, and Kamloops having the lowest.

ADU Variants: Among ADU variants, the prime version is the most cost-effective, while the garage variant incurs the highest costs.

Project Type Comparison: Across all regions, larger and more complex projects like the ADU variant - garage and Duplex - 3 storey are more expensive compared to simpler and smaller designs like ADU prime.

Conclusion

The Class D budget estimates for the ten standard designs provide a preliminary cost analysis based on floor plans and key assumptions. These estimates, while not exhaustive, offer valuable insights into the potential costs associated with each project type. This early-stage financial overview will assist in decision-making and project planning, highlighting the need for more detailed analysis as the potential projects progress.