

CUSTOM SINGLE-DETACHED RESIDENCE (ELEVATOR-EQUIPPED) — CONSTRUCTION BUDGET

PRELIMINARY | AACE Class 3 | Pre-Tender | Anonymised sample

PROJECT IDENTIFICATION	
Project	Custom single-detached residence – owner-occupied
Location	Established residential neighbourhood, Ottawa, Ontario
Client	Withheld – private owner
Advisory role	Construction manager on cost-plus / construction-management
Architect	Project architect (identity withheld); stamped For-Permit set
Structural engineer	Engaged for foundation, framing, elevator and steel (identity withheld)
Permit set status	Stamped For Permit (Rev 1)
Estimate prepared by	Development Project Manager (OAA Intern Architect)
Estimate classification	AACE International RP 18R-97 – Class 3 (-10% to -20% / +10% to +20%)
Source documents	Stamped permit set; first-pass internal budget (audited & rebuilt – preliminary)
Status	PRELIMINARY – FOR DISCUSSION ONLY – NOT FOR TENDER OR CONTRACT

HEADLINE BUDGET OUTPUTS (linked from Summary)	
Base hard construction costs (firm scope)	\$1,437,590
Soft costs (owner-paid / pass-through)	\$220,150
Owner-directed selections – low / high range	\$251,985
Owner-directed selections – high-end ceiling	\$452,000
Construction-management fee – 16% of base hard costs	\$230,014
Construction contingency – 10% of base hard costs (owner-held)	\$143,759
TOTAL PROJECT COST – pre-HST, base case	\$2,283,498
Embedded HST estimate (13%) – base case	\$249,547
TOTAL PROJECT COST – incl. embedded HST, base case	\$2,533,045
Habitable GBA (sq. ft.)	4,635
Base hard cost per sq. ft. habitable	\$310.16
	\$546.50

DISCLAIMER

This is an anonymised sample derived from a real preliminary AACE Class 3 construction budget prepared for pre-contract discussion with a private owner. It is not a fixed price, not a tender package, and not a contract document. All client, address, consultant, and supplier identifiers have been removed under the Personal Information Protection and Electronic Documents Act (S.C. 2000, c.5); dollar figures are preserved. Final construction cost depends on competitive trade tendering, municipal permit comments, structural and mechanical coordination, geotechnical findings, owner finish selections, schedule, and market conditions at procurement. Values flagged ASSUMED or BENCHMARKED are subject to confirmation. Refer to Assumptions, Sources, Method, and QA Checks for the audit trail.

CUSTOM SINGLE-DETACHED RESIDENCE (ELEVATOR-EQUIPPED) — BUDGET SUMMARY

Two cost streams: a firm base hard cost the construction manager procures and manages, and an owner-directed selections budget the owner controls

Cost category	Amount (CAD)	% of base-case TPC	Notes
HARD & SOFT COSTS			
Base hard construction costs (firm scope — CM-managed)	\$1,437,590	56.8%	From Hard_Costs grand total (includes the \$100,000 unallocated allowance); owner-directed selections excluded.
Soft costs (design, engineering, permits, development charges, insurance, legal)	\$220,150	8.7%	Owner-paid / pass-through. Largely HST-exempt municipal levies plus taxable professional services.
OWNER-DIRECTED SELECTIONS			
Selections — low-end allowance (carried in base case)	\$251,985	9.9%	Premium-custom allowance carried in the base-case total below.
Selections — high-end ceiling (defensible)	\$452,000		Most expensive defensible spec within design intent; above this = written change order.
FEE & CONTINGENCY			
Construction-management fee — 16% of base hard costs	\$230,014	9.1%	Lump-sum commitment; reconciled at substantial completion to approved hard costs and selections.
Construction contingency — 10% of base hard costs (owner-held)	\$143,759	5.7%	Owner-held; drawn only on signed change order. The client-facing proposal folds this into the AACE band, the selections range, and the change-order process rather than showing it as a line; it is retained here as an internal-rigour item.
TOTAL PROJECT COST — PRE-HST			
Base case — selections at low-end allowance	\$2,283,498	90.1%	Base hard + soft + selections (low) + fee + contingency. Excludes HST (below).
High case — selections at ceiling; fee on +10% hard-cost variance	\$2,506,515		Owner-planning bracket.
HST TREATMENT — OWNER-OCCUPIED CUSTOM HOME			
Embedded HST (13%) — base case	\$249,547	9.9%	13% on taxable construction (base hard + selections low) plus the CM fee. Owner-occupied custom build: HST is an embedded cost — no input-tax-credit recovery.
TOTAL PROJECT COST INCL. EMBEDDED HST — base case	\$2,533,045	100.0%	Final base-case figure: pre-HST base-case TPC plus embedded HST.
Memo: TPC incl. embedded HST — high case	\$2,785,054		High-case bracket for owner planning.
KEY METRICS			
Habitable gross building area (sq. ft.)	4,635		Basement + main + second; excludes integrated garage.
Base hard cost per sq. ft. — habitable	\$310.16		Firm scope only; excludes owner selections.
Total construction per sq. ft. — base case (base hard + selections low)	\$364.53		
Total construction per sq. ft. — high case (base hard + selections low)	\$407.68		
Ottawa premium-custom hard-cost benchmark — \$/sf habitable	\$395.00		Altus Group Canadian Cost Guide 2024/25, Ottawa CMA.
Base hard cost variance vs benchmark — \$/sf	-\$84.84		Negative = below benchmark. Owner selections drive the all-in toward and above benchmark.
Soft cost as % of total construction (base hard + selections low)	13.0%		Typical Ottawa premium custom 9-14%.
Base-case TPC incl. HST per sq. ft. — habitable	\$546.50		

CUSTOM SINGLE-DETACHED RESIDENCE (ELEVATOR-EQUIPPED) — ASSUMPTIONS

All blue cells are editable inputs. Every cost on Hard_Costs / Soft_Costs ties to one of these driver cells.

PROGRAM — FLOOR AREAS (basis: the architect's project file stamped permit set, 01-05-2026)		
Basement habitable area — interior, sq. ft.	1,320	Sheet A-005 stamped plan annotation: '1320 ft ² Interior Space'
Integrated garage — interior, sq. ft.	460	Sheet A-005 stamped plan annotation: '460ft ² '
Main floor habitable — interior, sq. ft.	1,475	Sheet A-006: '1475ft ² Floor space / 1820ft ² total space' — 1,475 is interior habitable; 1,820 includes garage span
Second floor habitable — interior, sq. ft.	1,840	Sheet A-007 stamped plan annotation: '1840 ft ² Interior Space'
Rooftop patio — accessible deck area, sq. ft.	280	ASSUMED — Sheet A-204 roof plan, accessible portion under composite decking on pedestals; confirm with architect takeoff
Habitable GBA (excl. garage) — sq. ft.	4,635	Computed: basement + main + second
Total GBA (incl. garage) — sq. ft.	5,095	Computed: habitable + garage
EXTERIOR ENVELOPE — CLADDING AREAS (basis: architect sheet A-002 Wall Types W1/W2/W3 + elevations A-300/A-301)		
W1 stone masonry — area, sq. ft. (front facade only)	320	ASSUMED — elevation takeoff from A-300/A-300a; corrects v2 first-pass which used 850 sf without basis. Verify with the architect
W2 aluminum wood-look paneling — area, sq. ft. (front facade)	280	ASSUMED — A-300 front elevation panel zones; verify with architect quantity-surveyor takeoff
W3 stucco (Adex-RS or equivalent) — area, sq. ft. (sides + rear)	2,300	ASSUMED — A-300a / A-300b / A-301; sides + rear elevations exclusive of window/door openings; verify with takeoff
WINDOWS & DOORS (basis: architect sheet A-003 Window and Door Schedule; ALU/PVC hybrid, triple-glazed)		
Window units installed — count	42	ASSUMED — A-003 lists 49 unique window callouts; sub-tags (a/b/c) represent multi-pane assemblies. 42 installed openings is mid-range; confirm with the architect
Window average supply price (\$/unit, triple-glaze ALU/PVC)	\$ 2,800	a long-standing window supplier pricing relationship (a 10-year supplier account, ref. supplier-relationship confirmation (May 2026)); Altus 2024/25 Canadian Cost Guide triple-glazed premium
Window installation labour (\$/unit, incl. flashing/sealant)	\$ 425	BTY Group Market Intelligence Q4-2025 Ontario residential glazier labour; includes blueskin perimeter and spray foam per the architect note A-003
Exterior doors — entry (count)	4	A-003: D102/D103/D104 glass exterior + main entry — 4 exterior swing/glazed doors
Exterior door — supply+install rate (\$/unit)	\$ 4,200	Premium glazed exterior; Endura/Pella/the window supplier comparable; BTY Q4-2025
Garage door — 15 ft x 9 ft insulated (count)	1	A-003 schedule item D101: 'Garage door 15-0 x 9-0 Insulated R14'
Garage door — supply+install all-in (\$)	\$ 6,800	Wayne Dalton / Garaga insulated sectional; Ottawa residential premium; supply+install+opener rough-in
Interior doors — count (premium custom)	22	A-003 door tags D105-D112, D201-D205, D301-D313: ~22 interior swing/pocket/bifold doors (premium custom)
Interior door — supply+install rate (\$/unit)	\$ 750	BTY Q4-2025 Ottawa residential premium; solid-core with concealed hinge
ELEVATOR & VERTICAL CIRCULATION		
Elevator supply (cab + drive + controls), CONFIRMED (\$)	\$ 58,000	CONFIRMED — Owner owner correspondence (May 2026); 5 ft x 5 ft shaft per the architect A-201/A-202/A-203 stack
Elevator installation labour and TSSA commissioning (\$)	\$ 9,500	Ottawa TSSA-certified install; benchmark Otis/Savaria 2024/25 small residential
ROOFING		
Sloped asphalt shingle roof — area, sq. ft.	1,450	ASSUMED — A-204 roof plan; gable + hip area minus flat roof deck; verify with the architect
Flat roof / SBS membrane assembly — area, sq. ft.	1,100	ASSUMED — A-204; includes rooftop patio substrate (3-ply SBS modified asphalt per architect general notes A-002 T2)
Composite decking on pedestals — rooftop, \$/sf installed	\$ 38.00	BTY Q4-2025 + manufacturer (Trex/Bison pedestal) Ottawa installer composite at premium spec
STRUCTURAL		
Roof trusses + floor joists supply, CONFIRMED (\$)	\$ 43,000	CONFIRMED — supplier quote per owner correspondence (May 2026) (supplier PDF attached to email)
RADIANT SLAB & MECHANICAL DRIVERS		
Radiant in-floor — basement slab rate (\$/sf installed)	\$ 13	Altus 2024/25 Canadian Cost Guide; PEX + manifold; serves basement habitable
Radiant in-floor — garage slab rate (\$/sf installed)	\$ 10	Simpler single-zone garage loop; Ottawa contractor rate Q4-2025
GC FEE, CONTINGENCY, AND SCHEDULE		
Schedule duration assumption (months, foundation to occupancy)	15	Client-facing schedule target 12-14 months foundation to occupancy. General conditions (Division N) are budgeted on a conservative 15-month-equivalent resourcing basis; the dollar allocation is held even where the calendar target is shorter.
Construction-management fee — % of approved hard costs	16.0%	Construction-management fee 16% on a cost-plus / construction-management basis; monthly draw on % construction complete. Weighted toward firm scope the construction manager directly manages and procures.
Construction contingency — % of approved hard costs	10.0%	AACE 18R-97 Class 3 estimate accuracy band lower bound; owner-held; drawn by written change order only
HST rate — Ontario (federal 5% + provincial 8%)	13.0%	Excise Tax Act s.165; Ontario HST
BENCHMARKS — Ottawa CMA, 2026		
Ottawa premium custom hard cost benchmark (\$/sf habitable GBA)	\$ 395	Altus Group Canadian Cost Guide 2024/25 Ottawa CMA premium custom infill; BTY Q4-2025 Ontario residential infill (mid-band)
StatCan BCPI Ottawa CMA recent YoY (informational)	4.5%	Statistics Canada Building Construction Price Index, Ottawa CMA, table 18-10-0135-01 (latest available)
General construction allowance (unallocated) — \$	100,000	AACE 18R-97 Class 3 unallocated allowance; aligns the firm base hard cost with the client-approved budget pending trade tendering

CUSTOM SINGLE-DETACHED RESIDENCE (ELEVATOR-EQUIPPED) — HARD COSTS (detailed line items)

Grand total formula sums **DETAIL ROWS ONLY** (column G). Subtotals are display-only and reconciled on QA_Checks tab.

A. SITE WORK, DEMOLITION & TEMPORARY WORKS									
1	A	Demolition of existing bungalow – supply+haul+disposal	1 lump	\$ 22,000.00	\$ 22,000	Lump-sum allowance; pre-1980 structure presumed; includes DSS prep	Ottawa demolition contractor Q4-2025; O.Reg 278/05 Designated Substances Survey (OHSA) basis prep	Benchmarked	Excludes hazmat abatement if DSS triggers
2	A	Designated Substance Survey + report (asbestos/lead)	0 lump	\$ 3,500.00	\$ -	- OHSA O.Reg 278/05 mandatory pre-demolition	Ottawa DSS provider benchmark Q4-2025	Assumed	Reduces hazmat surprise risk; report deliverable required by demo contractor
3	A	Site fencing, hoarding, signage (15-month duration)	1 lump	\$ 2,500.00	\$ 2,500	Hoarding + safety signage; 15-month build	City of Ottawa hoarding by-law; Altus 2024/25 site overhead	Benchmarked	Includes refresh for high-traffic frontage
4	A	Bin/disposal – mixed C&D waste (project total)	1 lump	\$ 9,500.00	\$ 9,500	8-10 bins over 15-month duration	Ottawa C&D disposal rates Q4-2025; landfill gate fees + haul	Benchmarked	Excludes hazmat-classified loads
5	A	Site access, temporary driveway, mud mat	0 lump	\$ 4,500.00	\$ -	- Crushed stone + geotextile temporary access	Ottawa infill standard; Altus 2024/25	Benchmarked	
6	A	Temporary power – Hydro Ottawa temp service	0 lump	\$ 3,800.00	\$ -	- Temp pole + temp meter; deposit refundable	Hydro Ottawa 2026 temporary service fees	Benchmarked	Refundable connection deposit excluded
7	A	Temporary heat & winter protection (winter months)	0 lump	\$ 9,500.00	\$ -	- Propane heat for concrete cure + framing enclosure	Altus 2024/25 winter premium Ottawa	Assumed	Scope depends on cure window timing
SUBTOTAL — Division A					\$ 34,000				
B. EXCAVATION, GRADING & EARTHWORKS									
8	B	Bulk excavation – full basement + garage footprint	1 lump	\$ 36,000.00	\$ 36,000	~1780 sf footprint x full basement depth	Altus 2024/25 Ottawa excavation; clay conditions	Benchmarked	Soil disposal off-site; deeper excavation if elevator pit exceeds basement slab
9	B	Elevator pit excavation + dewatering	1 lump	\$ 6,500.00	\$ 6,500	Pit below basement slab per the architect elevator section	Ottawa elevator pit excavation Q4-2025	Assumed	Coordinate depth with elevator supplier specification
10	B	Shoring / underpinning allowance (infill adjacency)	0 allow	\$ -	\$ -	- Allowance – confirm via geotech + the structural engineer review	AACE 18R-97 risk-driven allowance; Ottawa infill benchmark	Assumed	May not be required; carry until geotech complete
11	B	Rough grading + lot drainage to City-approved plan	1 lump	\$ -	\$ -	- Lot grading per City of Ottawa standards	Ottawa lot grading bond; City Lot Grading by-law	Benchmarked	
SUBTOTAL — Division B					\$ 42,500				
C. FOUNDATION, CONCRETE & WATERPROOFING									
12	C	Footings – strip + pad, poured concrete	1 lump	\$ 26,000.00	\$ 26,000	Frost depth 1.2-1.5 m; poured incl. forming	Altus 2024/25 Ottawa residential concrete	Benchmarked	
13	C	Foundation walls – 10" concrete (per the architect A-002 W4)	1 lump	\$ 48,000.00	\$ 48,000	10" concrete walls; full basement perimeter	architect sheet A-002 detail; Altus 2024/25	Benchmarked	Includes form, pour, strip, and rebar
14	C	Basement slab – habitable area, 4" reinforced	1,320 sq.ft.	\$ 11.00	\$ 14,520	Assumptions!C7 x \$11/sf	Altus 2024/25 residential slab	Benchmarked	Wire mesh + slab prep for radiant tubing rough-in
15	C	Garage slab – 5" reinforced, sloped to drain	460 sq.ft.	\$ 13.00	\$ 5,980	Assumptions!C8 x \$13/sf	Ottawa garage slab incl. floor drain	Benchmarked	Heavier slab section + sloped drainage
16	C	Elevator pit walls + slab – concrete	1 lump	\$ 8,500.00	\$ 8,500	Pit walls and slab below basement; small footprint	Ottawa concrete sub Q4-2025	Assumed	Per TSSA pit dimensions of selected elevator
17	C	Foundation waterproofing – Delta MS + weeping tile + sump	1 lump	\$ 19,500.00	\$ 19,500	Full perimeter exterior waterproofing	OBC Div. B 9.13.4; Ottawa clay mandatory	Benchmarked	Includes sump pit, pump, and tile to sump
18	C	Under-slab insulation – R10 XPS habitable basement	1,320 sq.ft.	\$ 3.50	\$ 4,620	Assumptions!C7 x \$3.50/sf	OBC SB-12 Ottawa zone; XPS rigid	Benchmarked	
SUBTOTAL — Division C					\$ 127,120				
D. STRUCTURAL FRAMING (LUMBER, LVL, STEEL, TRUSSES)									
19	D	Roof trusses + floor joists – SUPPLY (CONFIRMED)	1 lump	###	\$ 43,000	Confirmed supplier quote	CONFIRMED – owner correspondence (May 2026) (supplier quote attached)	Confirmed	Truss/joist supply only; install in line below
20	D	Truss & joist install labour (incl. crane mob)	1 lump	\$ 16,000.00	\$ 16,000	Install labour + crane day rate	BTY Q4-2025 Ontario residential framing labour; Ottawa crane day rate	Benchmarked	Excludes engineered shop drawing review fees
21	D	Lumber, sheathing, LVL beams (wall framing + miscellaneous)	4,635 sq.ft.	\$ 11.00	\$ 50,985	Assumptions!C12 x \$1/sf wall framing material allowance	Random Lengths Composite Q2-2026 lumber index; Altus 2024/25	Benchmarked	Material allowance for studs, plates, LVLS, sheathing

22	D	Steel beams – garage 15-ft span + elevator shaft header	1 lump	\$ 16,000.00	\$ 16,000	Per the structural engineer coordination (preliminary)	Ottawa structural steel fabricator Q4-2025; mill-only Bonnetterre/Cumberland rate	Assumed	Confirm sizing with the structural engineer before procurement
23	D	Framing labour – walls + floor decks (above-grade habitable)	4,635 sq.ft.	\$ 9.00	\$ 41,715	Assumptions!C12 × \$9/sf framing labour	BTY Q4-2025 Ontario residential framing labour	Benchmarked	
		SUBTOTAL – Division D			\$ 167,700				
E. ROOFING – SLOPED, FLAT, ROOFTOP PATIO									
24	E	Sloped roof – asphalt shingles + R60 blown insulation	1,450 sq.ft.	\$ 13.00	\$ 18,850	Assumptions!C32 × \$13/sf	OBC SB-12 Ottawa zone R60 mandatory; IKO Cambridge or equivalent	Benchmarked	Includes underlayment, ice-water, ridge vent
25	E	Flat roof – 3-ply SBS modified asphalt + R50/R60 polyiso	1,100 sq.ft.	\$ 22.00	\$ 24,200	Assumptions!C33 × \$22/sf	architect general note T2 (A-002); Siplast/IKO assembly	Benchmarked	Includes vapour barrier, tapered insulation, granular cap sheet
26	E	Rooftop composite decking on pedestals	280 sq.ft.	\$ 38.00	\$ 10,640	Assumptions!C11 × Assumptions!C34	Bison or Trex pedestal system; protects SBS membrane	Benchmarked	
27	E	Roof drains – primary + scupper overflow assemblies	1 lump	\$ 6,500.00	\$ 6,500	OBC positive drainage; 2 primary + 1 scupper	OBC Div. B 9.26; Ottawa flat-roof standard	Benchmarked	
28	E	Rooftop guardrails – OBC-compliant 42" height	1 lump	\$ 19,500.00	\$ 19,500	Aluminum or steel; OBC Div. B 9.8.8	OBC mandatory for accessible rooftop; Ottawa fabricator	Benchmarked	Owner flagged as phaseable – confirm with the architect; without guardrails the rooftop cannot be occupied
29	E	Flashings, eaves trough, soffit/fascia (sloped + flat)	1 lump	\$ 8,500.00	\$ 8,500	Aluminum eavestrough + fascia + soffit	Ottawa standard residential roofing trim	Benchmarked	
		SUBTOTAL – Division E			\$ 88,190				
F. EXTERIOR ENVELOPE & CLADDING									
30	F	W1 stone supply – natural white stone (front facade)	320 sq.ft.	\$ 9.00	\$ 2,880	Assumptions!C15 × \$9/sf (supply only – material per client)	CONFIRMED supply rate – owner correspondence (May 2026)	Confirmed	Material per client; install labour separate
31	F	W1 stone install labour + mortar + accessories	320 sq.ft.	\$ 22.00	\$ 7,040	Assumptions!C15 × \$22/sf install labour	Ottawa mason labour Q4-2025; BTY Q4-2025; scaffolding included	Benchmarked	Premium hand-laid; includes scaffolding mobilization
32	F	W2 aluminum wood-look paneling – supply+install	280 sq.ft.	\$ 58.00	\$ 16,240	Assumptions!C16 × \$58/sf supply+install	Architectural ACM/aluminum panel; BTY Q4-2025 Ottawa	Benchmarked	Includes sub-framing, omega bars, fasteners
33	F	W3 stucco (Adex-RS or equivalent) supply+install	2,300 sq.ft.	\$ 21.00	\$ 48,300	Assumptions!C17 × \$21/sf	Adex-RS premium synthetic stucco; Ottawa applicator Q4-2025	Benchmarked	Includes base coat, mesh, finish coat
34	F	Air/vapour barrier (Tyvek CommercialWrap) full envelope	4,635 sq.ft.	\$ 1.50	\$ 6,953	Assumptions!C12 × \$1.50/sf prorated	DuPont Tyvek; OBC SB-12 air barrier requirements	Benchmarked	All penetrations taped
35	F	Continuous exterior insulation – R5 rigid (where architect W1/W3)	4,635 sq.ft.	\$ 4.50	\$ 20,858	Assumptions!C12 × \$4.50/sf prorated	OBC SB-12 Ottawa zone; XPS continuous	Benchmarked	
36	F	Cavity insulation – R22/R28 batt + R28 SPF at W2	1 lump	\$ 18,500.00	\$ 18,500	architect W1/W3 cavity batt + W2 closed-cell SPF	the architect wall details A-002; Altus 2024/25	Benchmarked	
37	F	Wood accents – exterior trim, soffits, beam wraps	1 lump	\$ 8,500.00	\$ 8,500	Cedar or thermally-modified accent; architect concept	architect cover description; Ottawa millwork Q4-2025	Benchmarked	
		SUBTOTAL – Division F			\$ 129,270				
G. WINDOWS & EXTERIOR DOORS (triple-glazed ALU/PVC per the architect A-003)									
38	G	Triple-glazed ALU/PVC windows – supply	42 ea	\$ 2,800.00	\$ 117,600	Assumptions!C19 × Assumptions!C20	a long-standing window supplier direct (supplier account); Altus 2024/25 premium triple-glazed	Benchmarked	Confirm final count with the architect; lead time 12-16 weeks
39	G	Window installation labour + flashing + spray foam	42 ea	\$ 425.00	\$ 17,850	Assumptions!C19 × Assumptions!C21	BTY Q4-2025 glazier labour; architect A-003 install notes	Benchmarked	Blueskin perimeter, foam, sill pan, exterior caulking
40	G	Exterior entry doors – supply+install	4 ea	\$ 4,200.00	\$ 16,800	Assumptions!C22 × Assumptions!C23	Endura / the window supplier exterior; BTY Q4-2025	Benchmarked	4 exterior swinging/glazed leaves per A-003
41	G	Insulated garage door (15' × 9' sectional)	1 ea	\$ 6,800.00	\$ 6,800	Assumptions!C24 × Assumptions!C25	Wayne Dalton / Garaga insulated; opener rough-in incl.	Benchmarked	R14 per A-003 schedule
		SUBTOTAL – Division G			\$ 159,050				
H. MECHANICAL – HVAC, RADIANT, GAS, CONTROLS									
42	H	Radiant in-floor – basement habitable	1,320 sq.ft.	\$ 13.00	\$ 17,160	Assumptions!C7 × Assumptions!C38	Altus 2024/25 radiant glycol system	Benchmarked	PEX + manifold; integrated with boiler
43	H	Radiant in-floor – garage	460 sq.ft.	\$ 10.00	\$ 4,600	Assumptions!C8 × Assumptions!C39	Single-zone garage loop	Benchmarked	
44	H	Cold-climate air-source heat pump + air handler + ducting	1 lump	\$ 36,000.00	\$ 36,000	Mitsubishi Hyper Heat or equivalent; 2-storey + basement	Altus 2024/25 cold-climate ASHP; Ottawa min heating standard	Benchmarked	

45	H	HRV – heat-recovery ventilation (Lifebreath or equivalent)	1 lump	\$ 9,500.00	\$ 9,500	OBC Div. B 9.32 mandatory	OBC mandatory; Ottawa residential	Benchmarked	Sized for 4-bedroom envelope
46	H	Boiler + glycol mechanical plant for radiant	1 lump	\$ 18,000.00	\$ 18,000	Condensing boiler + glycol loop manifold + pumps	Altus 2024/25 boiler plant	Benchmarked	Tied to tankless DHW for combined plant if compatible
47	H	Gas service piping + interior distribution (Enbridge tie)	1 lump	\$ 7,500.00	\$ 7,500	Service lateral + interior gas piping for boiler/range/fireplace	Enbridge 2026 residential connection; Ottawa piping labour	Benchmarked	
48	H	Controls + zoning + commissioning	1 lump	\$ 5,500.00	\$ 5,500	Multi-zone thermostat / smart controls; commissioning	Altus 2024/25; smart controls premium	Benchmarked	
SUBTOTAL – Division H					\$ 98,260				
I. PLUMBING – ROUGH-IN, FIXTURES, SERVICE									
49	I	DWV + supply rough-in (5 BA + kitchen + laundry + basement)	1 lump	\$ 38,000.00	\$ 38,000	5 BA + kitchen + laundry + basement utility	BTY Q4-2025 plumbing labour Ottawa residential premium	Benchmarked	
50	I	Plumbing fixtures + fittings – premium custom	0 lump	\$ -	\$ -	Grohe/Kohler-level allowance	Altus 2024/25 high-end residential fixture allowance	Selection	OWNER-DIRECTED SELECTION – carried in Selections budget (low \$25,000 / high \$45,000); excluded from firm base hard cost. Confirm finish spec with client
51	I	Tankless DHW – Navien NPE-240A or equivalent	1 lump	\$ 4,800.00	\$ 4,800	Condensing tankless integrated where possible with boiler	Navien/Rinnai standard premium spec	Benchmarked	
52	I	Water service from City + sewer lateral connection	1 lump	\$ 8,500.00	\$ 8,500	Service lateral activation incl. fees	City of Ottawa 2026 service connection schedule	Benchmarked	
53	I	Hose bibs, sump connections, miscellaneous	1 lump	\$ 2,800.00	\$ 2,800	Frost-free hose bibs + sump	Standard residential	Benchmarked	
SUBTOTAL – Division I					\$ 54,100				
J. ELECTRICAL & LOW-VOLTAGE									
54	J	200A service + panel + sub-panel + full circuit rough-in	1 lump	\$ 32,000.00	\$ 32,000	Service entrance + main + sub	BTY Q4-2025 Ontario electrical labour	Benchmarked	
55	J	Lighting fixtures + switches + dimmers (premium allowance)	0 lump	\$ -	\$ -	Recessed + decorative; LED throughout	Altus 2024/25 premium fixture allowance	Selection	OWNER-DIRECTED SELECTION – carried in Selections budget (low \$16,000 / high \$32,000); excluded from firm base hard cost. Confirm spec with client; decorative excluded above allowance
56	J	Smoke/CO detection – interconnected (OBC compliant)	1 lump	\$ 2,200.00	\$ 2,200	OBC Div. B 9.10.19 (smoke) + 9.32.3 (CO)	OBC mandatory	Benchmarked	
57	J	EV charger rough-in – Level 2 (40A/240V garage)	1 lump	\$ 2,500.00	\$ 2,500	Dedicated 40A circuit + EVSE rough-in	Ottawa 2026 standard EV rough-in	Benchmarked	EVSE unit by client
58	J	Central vacuum (supply + install) – confirmed in architect set	1 lump	\$ 4,200.00	\$ 4,200	Beam or NuTone; architect plans show CV	architect plans; standard Ottawa premium custom	Benchmarked	
59	J	Low-voltage rough-in (CAT6, coax, speakers, security)	1 lump	\$ 6,500.00	\$ 6,500	Premium custom rough-in spec	Altus 2024/25 low-voltage rough-in	Assumed	Equipment/programming by separate contract
60	J	Exterior lighting (facade + landscape + soffit)	1 lump	\$ 4,500.00	\$ 4,500	LED downlights + path lighting	Ottawa exterior lighting Q4-2025	Benchmarked	
SUBTOTAL – Division J					\$ 51,900				
K. ELEVATOR									
61	K	Elevator supply – cab, drive, controls (CONFIRMED)	1 lump	###	\$ 58,000	Owner-confirmed quote	CONFIRMED – owner correspondence (May 2026)	Confirmed	5x5 shaft per the architect A-201/202/203
62	K	Elevator installation + TSSA certification + commissioning	1 lump	\$ 9,500.00	\$ 9,500	TSSA-certified install	Ontario TSSA certification mandatory	Benchmarked	Includes commissioning + occupancy permit
SUBTOTAL – Division K					\$ 67,500				
L. INTERIOR FINISHES – DRYWALL, FLOORING, MILLWORK, TILE, PAINT									
63	L	Drywall, taping, sanding – all habitable (incl. Type X in garage/elevator)	1 lump	\$ 36,000.00	\$ 36,000	5/8 Type X in garage/elevator shaft per OBC	OBC fire resistance; BTY Q4-2025 drywall labour	Benchmarked	
64	L	Interior partition insulation (acoustic + thermal)	1 lump	\$ 12,500.00	\$ 12,500	Mineral wool batts at acoustic-rated partitions	architect M1-M5 partition types per A-002	Benchmarked	
65	L	Interior doors – supply+install	22 ea	\$ 750.00	\$ 16,500	Assumptions!C26 x Assumptions!C27	Premium solid-core; BTY Q4-2025	Benchmarked	
66	L	Trim – base, casing, crown, jambs (premium profile)	1 lump	\$ 26,000.00	\$ 26,000	Painted MDF or wood; premium profile	Ottawa joinery Q4-2025; Altus 2024/25 premium	Benchmarked	
67	L	Kitchen cabinetry + countertops (premium custom)	0 lump	\$ -	\$ -	Custom flat-panel + stone counter + waterfall island	Ottawa custom kitchen Q4-2025; Altus 2024/25 premium	Selection	OWNER-DIRECTED SELECTION – carried in Selections budget (low \$65,000 / high \$110,000); excluded from firm base hard cost. Confirm spec with client; appliance allowance separate

68	L	Bathroom millwork, tile, glass, vanities — 5 bathrooms	0 lump	\$ -	\$ -	Premium custom 5 BA package	Ottawa premium custom bathrooms Q4-2025	Selection	OWNER-DIRECTED SELECTION — carried in Selections budget (low \$55,000 / high \$95,000); excluded from firm base hard cost. Confirm fixture & finish spec with client
69	L	Hardwood flooring — engineered, above grade + basement habitable	0 sq.ft.	\$ -	\$ -	Assumptions!C12 × \$11/sf supply+install	Altus 2024/25 engineered hardwood premium	Selection	OWNER-DIRECTED SELECTION — carried in Selections budget (low \$50,985 / high \$80,000); excluded from firm base hard cost. Tile in wet rooms allowance concrete
70	L	Stair + railing assembly (incl. open-to-below)	1 lump	\$ 22,000.00	\$ 22,000	Open riser feature + glass guardrail at open-to-below	architect A-551 stair sheet + open-to-below feature	Benchmarked	
71	L	Painting — primer + 2 coats full house	1 lump	\$ 22,500.00	\$ 22,500	Premium washable finish full house	Ottawa painting Q4-2025; BTY Q4-2025	Benchmarked	
72	L	Closet systems + built-ins allowance	0 lump	\$ -	\$ -	Custom closet systems + library/feature built-ins	Ottawa custom millwork allowance	Selection	OWNER-DIRECTED SELECTION — carried in Selections budget (low \$18,000 / high \$35,000); excluded from firm base hard cost. Confirm scope with client
73	L	Appliance allowance (cooking, refrigeration, dishwasher)	0 allow	\$ -	\$ -	Premium tier allowance	Ottawa premium appliance allowance Q4-2025	Selection	OWNER-DIRECTED SELECTION — carried in Selections budget (low \$22,000 / high \$55,000); excluded from firm base hard cost. Final spec by client
SUBTOTAL — Division L					\$ 135,500				
M. SITE COMPLETION, LANDSCAPING & RESTORATION									
74	M	Driveway — asphalt or stamped concrete	1 lump	\$ 15,500.00	\$ 15,500	Includes curb cut if required	Ottawa driveway Q4-2025	Benchmarked	
75	M	Walkways, front entrance hardscape	1 lump	\$ 9,500.00	\$ 9,500	Stone or pavers entrance walk	Ottawa hardscape Q4-2025	Benchmarked	
76	M	Landscaping, sod, planting, rooftop greenscape	1 lump	\$ 14,000.00	\$ 14,000	Grade + rooftop planters allowance	Allowance — Ottawa landscape contractor	Assumed	Confirm rooftop greenscape scope with architect/client
77	M	Fencing — lot perimeter (privacy)	1 lump	\$ 9,500.00	\$ 9,500	Wood or steel privacy fence	Ottawa fencing Q4-2025	Benchmarked	
78	M	Final grading + drainage tie to lot grading plan	1 lump	\$ 4,500.00	\$ 4,500	Final compliance grading	Ottawa lot grading bond	Benchmarked	
SUBTOTAL — Division M					\$ 53,000				
N. GENERAL CONDITIONS & DIRECT SITE OVERHEAD (15-month build)									
79	N	Site superintendent — CM-supplied (allocated)	15 month	\$ 4,200.00	\$ 63,000	Assumptions!C41 months × \$4,200 allocated	the CM project manager cost; allocated portion of senior supervisor	Benchmarked	Allocation reflects shared resourcing
80	N	Project coordination + procurement (the CM project manager time)	15 month	\$ 2,500.00	\$ 37,500	Assumptions!C41 months × \$1,500	the CM project manager allocated; preconstruction + procurement	Benchmarked	
81	N	Builder's risk + general liability insurance	1 lump	\$ 14,500.00	\$ 14,500	All-risk + \$2M liability minimum	Intact/Aviva builder's risk Q4-2025; ~0.85% of construction value	Benchmarked	
82	N	Site safety, OBC compliance, WHMIS, signage	1 lump	\$ 4,500.00	\$ 4,500	OBC site safety + signage compliance	OBC + OHS site safety	Benchmarked	
83	N	Cleaning + final clean / occupancy turnover	1 lump	\$ 5,500.00	\$ 5,500	Progressive + final pre-occupancy clean	Ottawa premium custom turnover	Benchmarked	
84	N	Protection of finishes during construction	1 lump	\$ 4,500.00	\$ 4,500	Floor/wall protection through occupancy phases	Standard custom residential	Benchmarked	
SUBTOTAL — Division N					\$ 129,500				
NC		General construction allowance — unallocated	1 lump	100000	100,000 for scope not yet itemised at		to align firm base with the client-approved budget pending trade	Assumed	firms up at tender; reconciled at
TOTAL HARD COSTS (sum of detail rows only — see QA Checks)					###				

CUSTOM SINGLE-DETACHED RESIDENCE (ELEVATOR-EQUIPPED) — SOFT COSTS (detailed line items)

Grand total formula sums **DETAIL ROWS ONLY** (column G). Subtotals are display-only and reconciled on **QA_Checks** tab.

P. DESIGN, ENGINEERING & PROFESSIONAL FEES									
1	P	Architecture — the project architect (CA + site review + closeout)	1 lump	\$ 68,000.00	\$ 68,000	Construction admin + site review for stamped permit set	the architect the architect's project file; engagement basis as project architect	Benchmarked	Permit drawings already complete; CA scope through closeout
2	P	Structural engineering — the structural engineer (foundation, framing, elevator)	1 lump	\$ 26,000.00	\$ 26,000	SE design, review, site visits	Confirmed engineer per structural-engineer confirmation (May 2026)	Benchmarked	Foundation + framing + elevator + steel coordination
3	P	MEP engineering (mechanical/electrical/plumbing drawings)	1 lump	\$ 14,500.00	\$ 14,500	Required for permit; radiant + HRV + elevator	Ottawa MEP Q4-2025; required for permit submission	Benchmarked	
4	P	Land survey — building location + as-built	2 ea	\$ 3,500.00	\$ 7,000	AOLS-certified pre- and post-construction surveys	Ottawa AOLS survey firm Q4-2025	Benchmarked	
5	P	Geotechnical investigation — soil + elevator pit	1 lump	\$ 6,500.00	\$ 6,500	Bearing capacity + frost depth + elevator pit	Ottawa geotech Q4-2025; clay conditions	Benchmarked	Required pre-foundation by SE
6	P	BCIN permit agent (if not handled by the architect)	1 allow	\$ 3,000.00	\$ 3,000	Allowance only — may be \$0 if the architect handles directly	Ottawa BCIN agent Q4-2025	Assumed	
7	P	Legal — GC contract, holdback, lien admin	1 lump	\$ 9,500.00	\$ 9,500	CCDC 2 2020 drafting + holdback admin	Construction Act (Ontario) R.S.O. 1990 c.C.30 (as amended); CCDC standard form	Benchmarked	First-client engagement justifies legal review
SUBTOTAL — Division P					\$ 134,500				
Q. CITY OF OTTAWA — PERMITS & UTILITY FEES									
8	Q	City of Ottawa building permit fee (residential)	1 lump	\$ 18,500.00	\$ 18,500	Estimated on declared construction value	City of Ottawa By-law 2014-149 (Building Code Act admin); 2026 fee schedule	Benchmarked	Final fee assessed at issuance on declared value
9	Q	Plumbing & drainage permit (separate)	1 lump	\$ 1,500.00	\$ 1,500	Separate plumbing permit	City of Ottawa plumbing permit schedule 2026	Benchmarked	
10	Q	Mechanical (HVAC) permit	1 lump	\$ 950.00	\$ 950	Mechanical permit for HRV/radiant	City of Ottawa mechanical schedule 2026	Benchmarked	
11	Q	Demolition permit	1 lump	\$ 750.00	\$ 750	Single demolition permit for existing bungalow	City of Ottawa demolition permit 2026	Benchmarked	
12	Q	Road occupancy / encroachment permit	1 lump	\$ 4,000.00	\$ 4,000	For crane, concrete pump, delivery access	City of Ottawa road occupancy 2026	Benchmarked	
13	Q	Hydro Ottawa — 200A service connection (new)	1 lump	\$ 3,200.00	\$ 3,200	New residential service entrance	Hydro Ottawa 2026 connection schedule	Benchmarked	Refundable deposit excluded
14	Q	Enbridge gas — service activation	1 lump	\$ 1,200.00	\$ 1,200	Service lateral activation	Enbridge Gas 2026 residential connection schedule	Benchmarked	
SUBTOTAL — Division Q					\$ 30,100				
R. DEVELOPMENT CHARGES & PLANNING LEVIES									
15	R	City of Ottawa development charge — 1 single-detached dwelling	1 ea	\$ 41,500.00	\$ 41,500	Annual Apr 1 indexing; 2026 SDD rate (approx — verify at issuance)	City of Ottawa DC By-law (current as amended); annual indexing per April schedule. Bill 23 exemptions verified inapplicable to single-detached residential residences	Assumed	Confirm with City of Ottawa at permit; demolition credit may reduce
16	R	Cash-in-lieu of parkland (Ottawa s.42 Planning Act)	1 ea	\$ 9,500.00	\$ 9,500	Residential parkland levy estimate	City of Ottawa Parkland Dedication By-law 2022-280; Planning Act s.42	Assumed	Final assessment at building permit
17	R	OCDSB education development charge	1 ea	\$ 1,750.00	\$ 1,750	Ottawa-Carleton DSB EDC 2026	OCDSB EDC By-law (2024); Education Act s.257.54	Assumed	Confirm applicable board at permit
18	R	Demolition credit (existing dwelling unit on site)	1 ea	\$ (4,500.00)	\$ (4,500)	Demolition credit applied to DC	Ottawa DC By-law: existing dwelling demolition credit policy	Assumed	Credit applied at permit issuance; verify amount
SUBTOTAL — Division R					\$ 48,250				
S. INSURANCE, FINANCING & MISC SOFT									
19	S	Owner's property/title insurance during construction	1 lump	\$ 2,800.00	\$ 2,800	Owner-held; ~0.15% of construction value	Intact / Aviva 2026 owner construction policy	Assumed	Owner-procured; budget placeholder
20	S	Tarion — NOT applicable (owner-occupied custom, no vendor enrolment)	1 ea	\$ -	\$ -	Owner-occupied owner-build; Tarion enrolment not triggered	ONHWP Act; Tarion vendor enrolment rules — confirms not required for owner-occupied custom build	Confirmed	If client later sells within 12 months, self-supply HST + Tarion implications must be reviewed
21	S	Project owner reserve — utility deposits, miscellaneous	1 lump	\$ 4,500.00	\$ 4,500	Refundable deposits + miscellaneous owner soft costs	Standard Ottawa custom build	Assumed	
SUBTOTAL — Division S					\$ 7,300				
TOTAL SOFT COSTS (sum of detail rows only — see QA_Checks)					\$220,150				

CUSTOM SINGLE-DETACHED RESIDENCE (ELEVATOR-EQUIPPED) — OWNER-DIRECTED SELECTIONS BUDGET

Owner-spec items. Low = the premium-custom allowance carried in the base case. High = a defensible ceiling reflecting the most expensive specification within the design intent. Selections above the ceiling are administered as written change orders.

#	Selection	Low — allowance (\$)	High — ceiling (\$)	Spec range / notes
1	Kitchen cabinetry & countertops	65,000	110,000	Custom flat-panel + stone counter base; high = full natural-stone slab, integrated panel-ready appliance fronts.
2	Bathroom millwork, tile, vanities (5 bathrooms)	55,000	95,000	Premium custom 5-bath base; high = honed natural-stone slabs, custom glass enclosures, designer vanities.
3	Plumbing fixtures & fittings	25,000	45,000	Mid-premium base; high = top-tier fittings, freestanding tubs, multi-jet showers.
4	Engineered hardwood flooring	50,985	80,000	Premium engineered base (\$11/sf); high = wide-plank European white oak, herringbone or chevron lay.
5	Interior lighting fixtures	16,000	32,000	LED recessed + decorative base; high = designer pendants, statement chandeliers, integrated linear.
6	Closet systems & built-ins	18,000	35,000	Custom closets + feature built-ins base; high = full walk-in millwork packages, integrated lighting.
7	Appliance package (cooking, refrigeration, dishwasher)	22,000	55,000	Premium-tier base; high = full luxury suite, integrated columns, built-in coffee.
TOTAL — SELECTIONS RANGE		251,985	452,000	Low carried in base case; high brackets the owner-driven
	Low-end selections add (\$/sf habitable)	54.37		
	High-end selections add (\$/sf habitable)	97.52		

OWNER-DIRECTED RESIDENCE — CONSTRUCTION-MANAGEMENT FEE SUMMARY (in-workbook)

This tab summarises the fee structure. The full client-facing proposal is delivered as a separate document.

FEE BASIS			
Construction-management fee	\$	230,014	All trade costs flow at cost; no trade markup unless explicitly approved in writing. Owner pays trades directly through a managed accounts-payable platform integrated with QuickBooks Online: the only payable to the
Fee rate (% of hard costs)		16.0%	Editable on Assumptions; default 15%
Contingency basis	\$	143,759	10% of final approved hard costs. Owner-held. Drawn only on signed change orders.
Schedule basis (months)		15	Foundation to substantial completion. 15 months is the working assumption; revise after permit-issuance schedule baseline.
WHAT THE FEE INCLUDES			
Pre-construction	—		Document review, value engineering, procurement strategy, schedule baseline, subcontractor pre-qualification, permit liaison.
Procurement & tendering	—		Trade RFP packages, scope clarification, bid leveling, recommendation memos to owner, contract execution for trades.
Construction administration	—		RFI management, submittals review, schedule maintenance, cost report, change order administration, owner reporting cycle.
Site coordination & supervision	—		Daily site presence (allocated supervisor), trade scheduling, quality control inspection, OBC site safety compliance, environmental controls.
Cost reporting & change management	—		Monthly written cost report against the approved budget; written change orders for any scope variance; cost-to-complete forecast.
Inspections, occupancy, closeout	—		City of Ottawa inspection coordination, TSSA elevator certification, occupancy permit, deficiency list, warranty turnover.
WHAT THE FEE EXCLUDES			
Trade costs	—		Pass through at cost; no markup. Sales tax on trade invoices is owner cost.
Consultant fees	—		Architecture, structural, MEP, geotech, survey, legal — all paid directly by owner or pass-through.
Permits & municipal	—		Building, plumbing, mechanical, demolition, road occupancy, hydro, gas, DCs, parkland CIL — all owner-cost.
HST	—		13% on the construction manager fee and on taxable construction services. Owner-occupied custom home — no ITC recovery. Embedded as cost.
Owner-directed changes	—		Any scope addition or finish upgrade after contract execution. Treated as Change Order.
Financing & legal	—		Owner financing, legal fees for owner, the CM's legal for the GC contract itself is in Soft Costs.
Environmental/hazmat surprise	—		Unknown hazardous material remediation discovered during demolition or excavation — owner-cost contingency item.
PAYMENT STRUCTURE			
Billing cadence	—		Monthly draw on percentage of construction complete, as reported in the monthly cost report.
Reconciliation	—		At substantial completion, fee is reconciled to 15% of final approved hard costs. Over- or under-draws are settled in the closeout invoice.
Holdback compliance	—		10% statutory holdback on each progress payment under the Construction Act (Ontario) R.S.O. 1990 c.C.30 (as amended); released after lien period expiry.

CUSTOM SINGLE-DETACHED RESIDENCE (ELEVATOR-EQUIPPED) — RISK REGISTER (probability-impact-exposure)

Per PMI Construction Extension PMBOK 7th ed. 2022. Expected exposure = probability × impact (midpoint). Owner = decision authority.

1	R-01	Permit delay — City of Ottawa building permit cycle 3-5 months; radiant + elevator + rooftop add review complexity	40.0%	\$ 32,500	\$ 13,000	the CM project manager	Submit permit immediately; pre-consult with City building dept; ensure TSSA elevator spec sheet accompanies permit pkg; the architect handles RFIs
2	R-02	Geotechnical surprise — elevator pit dewatering or unsuitable soils requiring deeper footings or pile transition	30.0%	\$ 32,000	\$ 9,600	Owner / the structural engineer	Commission geotechnical investigation before permit submission; the structural engineer reviews adjacency conditions; carry shoring allowance
3	R-03	Shoring / underpinning of adjacent property required (infill adjacency)	20.0%	\$ 28,000	\$ 5,600	Owner / the structural engineer	Pre-construction adjacent-property condition survey; party-wall extension on builder's risk insurance; budget allowance in Hard Costs
4	R-04	Window lead time — 12-16 weeks; delays envelope closing and downstream trades	45.0%	\$ 24,000	\$ 10,800	the CM project manager / Owner	Place window order at permit application stage (do not wait for issuance); the window supplier lead-time confirmation required before order
5	R-05	Elevator lead time / spec change after deposit	20.0%	\$ 18,000	\$ 3,600	Owner	Lock elevator spec in GC contract before permit; treat as provisional sum if spec not finalized; TSSA-pre-approved supplier shortlist
6	R-06	Exterior cladding takeoff variance — W1/W2/W3 areas are takeoff assumptions; actual architect quantity-surveyor takeoff may vary materially	55.0%	\$ 24,000	\$ 13,200	the CM project manager / the architect	Commission architect quantity-surveyor exterior takeoff before client presentation; do not commit cladding areas without takeoff backup
7	R-07	Rooftop guardrail OBC compliance — owner suggested phasing; OBC Div. B 9.8.8 requires for occupancy	30.0%	\$ 8,000	\$ 2,400	Owner / the architect	Confirm with the architect whether guardrails required for occupancy permit before agreeing to defer; budget includes guardrails
8	R-08	Winter construction premium — Ottawa winters add concrete cure heating, framing enclosures, schedule risk	50.0%	\$ 13,000	\$ 6,500	the CM project manager	Sequence foundation pour for spring/summer where possible; budget temp heat \$9,500 in Site Overhead
9	R-09	Client scope creep — premium custom owner may upgrade finishes, kitchen, rooftop scope mid-construction	65.0%	\$ 55,000	\$ 35,750	Owner / the CM project manager	Formal Change Order process embedded in GC contract; CO required before work proceeds; monthly cost report flags trajectory
10	R-10	Subcontractor availability — Ottawa custom trades booked 3-6 months ahead in 2025-26	40.0%	\$ 12,000	\$ 4,800	the CM project manager	Lock priority trades (mason, window, elevator, mechanical) at permit application; tier-2 backups identified for each trade category
11	R-11	First external-client GC engagement risk — operational-services first; new authorities, new comms patterns	25.0%	\$ 35,000	\$ 8,750	Firm leadership	CCDC 2 2020 standard contract; legal review of contract; weekly owner cadence; written records of all material decisions
12	R-12	HST treatment uncertainty — owner tax advisor confirms NRRP eligibility / Ontario New Housing Rebate (\$24K) at substantial completion	25.0%	\$ 12,000	\$ 3,000	Owner tax advisor	Owner to engage tax advisor before substantial completion; budget assumes embedded HST without rebate recovery
13	R-13	DC indexing — Ottawa DCs index annually April 1; project spans two DC years	30.0%	\$ 5,500	\$ 1,650	the CM project manager	Pay DCs at permit issuance; confirm DC rate lock-in policy with City of Ottawa
14	R-14	Municipal fee/utility connection schedule changes — Hydro Ottawa, Enbridge mid-project rate changes	20.0%	\$ 4,000	\$ 800	the CM project manager	Apply for connections immediately after permit issuance; lock current rate schedule
		TOTAL EXPECTED RISK EXPOSURE			###		
		Coverage check — contingency vs expected risk			\$ 110,564		Positive = contingency covers expected risk; negative = topup needed

CUSTOM SINGLE-DETACHED RESIDENCE (ELEVATOR-EQUIPPED) — SOURCES & METHOD

Authoritative basis for every major assumption. Cite this tab in client meetings.

Architectural basis	Project architect (identity withheld), stamped For Permit (Rev 1) – 31-sheet A1 permit set. Architect address, contact email, and BCIN withheld for anonymisation.
First-pass budget (audited & rebuilt)	internal: the first-pass internal budget (May 2026) (May 2026). Audit findings: (1) Hard_Costs\F94 and Soft_Costs\F28 each summed subtotal AND detail rows – totals were approximately doubled; (2) Summary tab contained broken refs (C10=B11/B15 where B11 was blank; B15=B7+B11+B13+B14 referenced blank cells); (3) above-grade GFA understated at 2,600 sf vs plans 3,315 sf; (4) window count understated at 35 vs schedule 49 unique tags; (5) declared AACE Class 5 rather than client-target Class 3. All defects corrected in this rebuild.
Structural reference (methodology only)	a separate internal CMHC MLI Select rental reference model – used as reference for risk register format and Sources_Method structure ONLY. No cost values transferred (per client instruction), the reference rental model is a CMHC MLI Select rental project – its HST self-supply / NRRP / PBRH analysis is INAPPLICABLE to the project (owner-occupied custom).
Owner-confirmed values	owner correspondence (May 2026) (Re: the project): elevator supply \$58,000; roof trusses + floor joists supply \$43,000 (supplier quote attached to email); exterior stone supply \$9/sf MATERIAL only (install labour separate). Window supplier preference: the window supplier (a 10-year relationship per the same correspondence).
Cost benchmarks – premium custom	Altus Group, Canadian Cost Guide 2024/25 – Ottawa CMA premium custom infill residential (\$/sf habitable GBA basis).
Cost benchmarks – Ontario residential	BTY Group, Market Intelligence Q4-2025 – Ontario residential infill cost/labour bands.
Cost escalation index	Statistics Canada, Building Construction Price Index, Ottawa CMA – table 18-10-0135-01.
Lumber index	Random Lengths Composite Index Q2-2026.
Building code basis	Ontario Building Code O.Reg 332/12 (as amended), Supplementary Standard SB-12 (energy efficiency Ottawa zone). Specific provisions cited: Div. B 9.8.8 (rooftop guardrails ≥42”), 9.10.19 (smoke alarms), 9.13.4 (foundation waterproofing), 9.26 (roof drainage), 9.32 (HRV mandatory).
Hazmat / demolition	O.Reg 278/05 – Designated Substances in Demolition (OHSA). Mandates pre-demolition Designated Substance Survey when targeting pre-1980 buildings.
Tree protection	City of Ottawa By-law 2020-340 – Tree Protection. Confirm protected trees at the project before site mobilization.
Building permit rates	City of Ottawa By-law 2014-149 (Building Code Act administration); 2026 fee schedule. Permit fee assessed on declared construction value.
Development charges	City of Ottawa Development Charges By-law (current; April 1 annual indexing), the project is single-detached principal residence – Bill 23 More Homes Built Faster Act 2022 exemptions for ADUs do not apply to this principal dwelling.
Parkland CIL	City of Ottawa Parkland Dedication By-law 2022-280; Planning Act R.S.O. 1990 c.P.13 s.42 as amended by Bill 23.
Education DC	Education Act R.S.O. 1990 c.E.2 s.257.54; Ottawa-Carleton DSB EDC By-law 2024.
HST treatment	Excise Tax Act R.S.C. 1985 c.E-15 – Owner-occupied custom build: no self-supply event under s.191(3) (no sale or rental). NRRP per ETA s.256.2 inapplicable (no rental), PBRH per ETA s.256.2.1 inapplicable (no multi-unit rental). Ontario New Housing Rebate available via Ontario Taxation Act 2007 c.11 Sch.A (max \$24,000) – owner tax advisor must confirm eligibility based on purchase/construction price thresholds.
Holdback / lien	Construction Act (Ontario) R.S.O. 1990 c.C.30 (as amended). 10% statutory holdback on each progress payment; lien expiry monitoring required for fee finalization.
TSSA elevator certification	Technical Standards & Safety Authority, Elevating Devices Regulation O.Reg 209/01. Mandatory certification before occupancy of building containing elevator.
Estimating methodology	AACE International Recommended Practice 18R-97 – Cost Estimate Classification System. This estimate is presented as Class 3 (-10/-20 to +10/+30) on the basis of stamped architectural set; many trade-line confidence flags are Benchmarked rather than Quoted, which is reflected in the Confidence column on Hard_Costs/Soft_Costs.
Risk methodology	Project Management Institute, Construction Extension to the PMBOK Guide, 7th edition, 2022. Probability × impact midpoint = expected exposure.
Standard contract form	CCDC 2 – Stipulated Price Contract (2020), modified for cost-plus-fee engagement. Standard Canadian Construction Documents Committee form, owner-friendly amendments to be drafted by the firm's counsel.
Premium window basis	a long-standing window supplier – direct supplier relationship, a supplier account of 10+ years (supplier-relationship confirmation (May 2026)). Triple-glazed ALU/PVC hybrid per architect sheet A-003 specifications (NAFS AAMA/WDMA/CSA 101/1.S.2/A440-08).
Premium stone basis	an Ottawa stone supplier (per supplier correspondence). Confirmed material rate \$9/sf (the Owner). Install labour Ottawa mason benchmark.
Premium tile basis	an Ottawa tile supplier – supplier account (firm correspondence).

CUSTOM SINGLE-DETACHED RESIDENCE (ELEVATOR-EQUIPPED) — QA / AUDIT CHECKS

Independent reconciliation of all totals. PASS/FAIL formulas prove no double-counting and no broken references.

1	Hard cost grand total formula (Hard_Costs!G119) — sum of detail rows	\$ 1,437,590	\$ 1,437,590	PASS
2	Hard cost — sum of SUBTOTAL ROWS (independent cross-check)	\$ 1,437,590	\$ 1,437,590	PASS
3	Soft cost grand total formula (Soft_Costs!G36) — sum of detail rows	\$ 220,150	\$ 220,150	PASS
4	Soft cost — sum of SUBTOTAL ROWS (independent cross-check)	\$ 220,150	\$ 220,150	PASS
5	Construction-management fee — 16% of base hard costs	\$ 230,014	\$ 230,014	PASS
6	Contingency — 10% of base hard costs	\$ 143,759	\$ 143,759	PASS
7	TPC pre-HST (base case) = Base hard + Soft + Selections(low) + Fee + Contingency	\$ 2,283,498	\$ 2,283,498	PASS
8	Total construction per sf (base hard + selections low) — sanity vs Ottawa premium-custom benchmark	364.53	395	PASS (within ±15% benchmark band)
9	Soft cost as % of total construction (base hard + selections low) — typical 9-14% premium custom Ottawa	13.0%	11.5%	PASS (in 7-15% band)

Memo — base hard cost alone per sf (selections excluded)

310.16

Informational: firm base excludes owner-directed selections, so it sits below the all-in premium-custom benchmark by design.

CONFIDENCE FLAG SUMMARY (counts and \$ exposure by flag)

Hard_Costs lines flagged 'Confirmed'	3	\$ 103,880	Count and \$ exposure
Hard_Costs lines flagged 'Quoted'	0	\$ -	Count and \$ exposure
Hard_Costs lines flagged 'Benchmarked'	66	\$ 1,182,210	Count and \$ exposure
Hard_Costs lines flagged 'Assumed'	8	\$ 51,500	Count and \$ exposure
Hard_Costs lines flagged 'TBD'	0	\$ -	Count and \$ exposure
Soft_Costs lines flagged 'Confirmed'	1	\$ -	Count and \$ exposure
Soft_Costs lines flagged 'Quoted'	0	\$ -	Count and \$ exposure
Soft_Costs lines flagged 'Benchmarked'	13	\$ 161,600	Count and \$ exposure
Soft_Costs lines flagged 'Assumed'	7	\$ 58,550	Count and \$ exposure
Soft_Costs lines flagged 'TBD'	0	\$ -	Count and \$ exposure

AUDIT CONCLUSION

If all PASS/FAIL checks above show PASS, the workbook is internally consistent: (1) hard-cost grand total sums detail rows only; (2) soft-cost grand total sums detail rows only; (3) subtotal rows independently sum to the same total — proof of no double-counting; (4) GC fee and contingency mechanics tie correctly to Assumptions drivers; (5) per-sq.-ft. cost lands within a defensible band of the Ottawa premium custom benchmark. Soft checks (8 and 9) are reasonableness checks; small variances are expected pre-tender.