

AUTHOR ESTIMATION LLC

CONSTRUCTION COST ESTIMATE — DIVISION 22: PLUMBING

PROJECT NAME	John Village Phase 1 — Multi-Family Residential, 21 Units
LOCATION	Atlanta, Georgia, USA
BUILDING TYPE	Multi-Family Residential — 21-Unit Apartment Complex
AREA (GFA)	22,387 SF GFA (Est.)
ESTIMATE NO.	AE-2026-SAMPLE-22
DATE	May 2026
PREPARED BY	Author Estimation LLC
PRICING BASIS	RSMMeans 2025 — Adj. CCI 0.97 (Atlanta, GA)
CCI FACTOR	Atlanta, GA — 0.97
STATUS	SAMPLE / FOR REFERENCE ONLY

ESTIMATE SUMMARY

SECTION	MATERIAL (\$)	LABOR (\$)	SUBTOTAL (\$)
22A — Domestic Cold Water Piping	17,437.40	9,533.23	26,970.63
22B — Domestic Hot Water Piping	13,886.36	8,514.68	22,401.05
22C — Sanitary Waste & Vent Piping	50,971.44	31,182.99	82,154.43
22D — Storm Drainage	46,410.94	25,739.69	72,150.63
22E — Plumbing Fixtures	35,443.80	18,455.22	53,899.02
22F — Equipment & Specialties	17,233.99	10,639.45	27,873.44

SUBTOTAL (DIRECT COST)	\$285,449.20
OVERHEAD (10%)	\$28,544.92
PROFIT (10%)	\$28,544.92
CONTINGENCY (5%)	\$14,272.46
GRAND TOTAL (INCL. MARKUPS)	\$356,811.50

This estimate is prepared for illustrative purposes only. Quantities derived from Ablett Village Phase 1 plumbing data (PLUMBING_EQUIPMENTS, EL ARBOL, 110 Kent). RSMMeans 2025 adjusted for Atlanta, GA (CCI 0.97). Actual bids require site-specific takeoff and field verification.

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SR #	DWG REF / CSI CODE	ITEM DESCRIPTION	UOM	WASTAGE (%)	QTY W/ WASTAGE	MAT UNIT RATE (NAT)	CCLADJ RATE (ATL)	MAT TOTAL	LABOR HRS/UNIT	LABOR RATE/HR	LABOR TOTAL	LINE TOTAL
22A — DOMESTIC COLD WATER PIPING												
COPPER TYPE "L" — ASTM B88 Insulate Underground per Note M101												
22A.01	22 11 16 M101 / M102	1/2"DIA Domestic Cold Water Pipe — Type L Copper, Soldered, w/ Fittings Mfr: Mueller Industries or equal RSMMeans 2025 #22-11-16.23-0200	LF	10%	1,096.70	4.85	4.70	5,159.43	0.06	62.00	3,627.55	8,786.98
22A.02	22 11 16 M101 / M102	3/4"DIA Domestic Cold Water Pipe — Type L Copper, Soldered, w/ Fittings Mfr: Mueller Industries or equal RSMMeans 2025 #22-11-16.23-0300	LF	10%	454.30	6.20	6.01	2,732.16	0.07	62.00	1,775.90	4,508.06
22A.03	22 11 16 M101 / M102	1"DIA Domestic Cold Water Pipe — Type L Copper, Soldered, w/ Fittings Mfr: Mueller Industries or equal RSMMeans 2025 #22-11-16.23-0400	LF	10%	258.50	9.80	9.51	2,457.30	0.08	62.00	1,243.70	3,701.00
22A.04	22 11 16 M101 / M102	1-1/2"DIA Domestic Cold Water Pipe — Type L Copper, Soldered, w/ Fittings Mfr: Mueller Industries or equal RSMMeans 2025 #22-11-16.23-0500	LF	10%	312.40	14.50	14.07	4,393.91	0.10	65.00	1,871.20	6,265.10
22A.05	22 11 16 M101 / M102	3"DIA Domestic Cold Water Main — Type L Copper, Soldered, w/ Fittings — Service Entry 3" Lead-Free Backflow Preventer + 3" Water Meter — 1 EA Each RSMMeans 2025 #22-11-16.23-0700	LF	5%	56.70	38.50	37.35	2,117.46	0.15	68.00	542.29	2,659.75
22A.06	22 11 16 M101	HB / VB: 3/4"DIA Hose Bib w/ Vacuum Breaker — Brass, Wall-Mounted, at All Unit Exteriors Mfr: Watts or equal RSMMeans 2025 #22-11-16.23-0900	EA	0%	7.00	85.00	82.45	577.15	1.20	58.00	472.58	1,049.73
22A — DOMESTIC COLD WATER PIPING SUBTOTAL								17,437.40			9,533.23	26,970.63
22B — DOMESTIC HOT WATER PIPING												
COPPER TYPE "L" Insulate All HW Piping w/ 1" THK R-4 Foam Insulation												
22B.01	22 11 16 M101 / M102	1/2"DIA Domestic Hot Water Pipe — Type L Copper, Soldered, w/ Fittings, Insulated Mfr: Mueller Industries or equal RSMMeans 2025 #22-11-16.23-1000	LF	10%	966.90	5.20	5.04	4,877.04	0.06	62.00	3,488.96	8,366.01
22B.02	22 11 16 M101 / M102	3/4"DIA Domestic Hot Water Pipe — Type L Copper, Soldered, w/ Fittings, Insulated Mfr: Mueller Industries or equal RSMMeans 2025 #22-11-16.23-1100	LF	10%	331.10	6.80	6.60	2,183.94	0.07	62.00	1,393.86	3,577.80
22B.03	22 11 16 M101 / M102	3/4"DIA Hot Water Return Pipe — Type L Copper, Soldered, Insulated — All Units Mfr: Mueller Industries or equal RSMMeans 2025 #22-11-16.23-1150	LF	10%	424.60	6.80	6.60	2,800.66	0.07	62.00	1,787.48	4,588.14

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SR #	DWG REF / CSI CODE	ITEM DESCRIPTION	UOM	WASTAG E (%)	QTY W/ WASTAG E	MAT UNIT RATE (NAT)	CCI ADJ RATE (ATL)	MAT TOTAL	LABOR HRS/UNIT	LABOR RATE/HR	LABOR TOTAL	LINE TOTAL
22B.04	22 11 16 M101 / M102	1"DIA & 1-1/2"DIA Domestic Hot Water Pipe — Type L Copper, w/ Fittings, Insulated Mfr: Mueller Industries or equal RSMMeans 2025 #22-11-16.23-1200	LF	10%	360.80	11.50	11.16	4,024.72	0.09	62.00	1,844.37	5,869.10
22B — DOMESTIC HOT WATER PIPING SUBTOTAL								13,886.36			8,514.68	22,401.05
22C — SANITARY WASTE & VENT PIPING												
CAST IRON ABOVE GRADE / PVC SCHEDULE 40 UNDERGROUND												
22C.01	22 13 16 M101 / M102	2"DIA Sanitary Waste Pipe — Cast Iron, No-Hub, Above Grade, w/ Fittings 2-Way Ground Cleanout @ Base of Each Stack RSMMeans 2025 #22-13-16.13-0200	LF	10%	1,839.20	8.50	8.25	15,164.20	0.10	62.00	10,507.90	25,672.11
22C.02	22 13 16 M101 / M102	3"DIA Sanitary Waste Pipe — Cast Iron, No-Hub, Above Grade, w/ Fittings Mfr: Tyler Pipe or equal RSMMeans 2025 #22-13-16.13-0300	LF	10%	809.60	12.80	12.42	10,051.99	0.12	62.00	5,599.27	15,651.27
22C.03	22 13 16 M101 / M102	4"DIA Sanitary Waste Pipe — PVC Sch. 40, Underground & Above Grade, w/ Fittings 4"DIA Underground Cast Iron per Note M101 RSMMeans 2025 #22-13-16.13-0400	LF	10%	776.60	14.20	13.77	10,696.89	0.13	62.00	5,838.09	16,534.98
22C.04	22 13 16 M101 / M102	1-1/2" & 2"DIA Vent Piping — ABS or PVC Sch. 40, Vent Through Roof 2"DIA VTR Connection to Fire Sprinkler Hub Drain — 4 EA RSMMeans 2025 #22-13-16.13-0600	LF	10%	2,985.40	5.20	5.04	15,058.36	0.06	58.00	9,237.72	24,296.08
22C — SANITARY WASTE & VENT PIPING SUBTOTAL								50,971.44			31,182.99	82,154.43
22D — STORM DRAINAGE												
22D.01	22 14 23 M101 / M102	3"DIA Roof Drains — Cast Iron, Clamping Ring, Dome Strainer, Flashing Collar — 33 EA Total Mfr: Zurn Z100 or equal RSMMeans 2025 #22-14-23.13-0200	EA	0%	33.00	385.00	373.45	12,323.85	3.50	65.00	7,282.28	19,606.13
22D.02	22 14 23 M101 / M102	3"DIA Storm Drain Pipe — Cast Iron, No-Hub, Above Grade, to Roof Drain Outlets Mfr: Tyler Pipe or equal RSMMeans 2025 #22-14-23.13-0400	LF	10%	199.10	12.80	12.42	2,472.03	0.12	62.00	1,377.00	3,849.02
22D.03	22 14 23 M101	4"DIA & 6"DIA Storm Drain Pipe — PVC Sch. 40, Underground, to Building Drain RSMMeans 2025 #22-14-23.13-0500	LF	10%	1,624.70	15.50	15.04	24,427.36	0.13	62.00	12,702.23	37,129.59

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22D.04	22 14 23 M101	Overflow Scuppers — 10"×4" & 12"×4" & 14"×4" Cast Iron, at All Parapet Walls 10"×4"=3 EA, 12"×4"=18 EA, 14"×4"=5 EA RSMMeans 2025 #22-14-23.13-0700	EA	0%	26.00	285.00	276.45	7,187.70	2.80	62.00	4,378.19	11,565.89
22D — STORM DRAINAGE SUBTOTAL								46,410.94			25,739.69	72,150.63
22E — PLUMBING FIXTURES												
PER FIXTURE SCHEDULE — 21 UNITS TYPICAL												
22E.01	22 42 13 P-1 / M101	WC: Floor-Mounted Water Closet — P-1: Vitreous China, 1.28 GPF, Elongated, ADA Compliant Mfr: American Standard or equal 21 EA (1 per unit) RSMMeans 2025 #22-42-13.13-0200	EA	0%	21.00	385.00	373.45	7,842.45	3.50	62.00	4,420.29	12,262.74
22E.02	22 41 39 P-3 / M101	LAV: Counter-Top Lavatory — P-3: Vitreous China, Single Bowl, w/ Pop-Up Drain Mfr: American Standard Cadet or equal 21 EA RSMMeans 2025 #22-41-39.13-0200	EA	0%	21.00	285.00	276.45	5,805.45	2.80	58.00	3,308.09	9,113.54
22E.03	22 42 39 P-2 / M101	TUB/SH: Bathtub w/ Shower — P-2: Antiscald Pressure-Balancing Valve, Showerhead, Rod & Curtain Mfr: American Standard Americast or equal 21 EA RSMMeans 2025 #22-42-39.13-0200	EA	0%	21.00	685.00	664.45	13,953.45	5.50	62.00	6,946.17	20,899.62
22E.04	22 44 13 P-4 / M101	KS: Kitchen Sink — P-4: Stainless Steel, Single Compartment, Drop-In, w/ Faucet Mfr: Kohler Undertone or equal 21 EA RSMMeans 2025 #22-44-13.13-0200	EA	0%	21.00	385.00	373.45	7,842.45	3.20	58.00	3,780.67	11,623.12
22E — PLUMBING FIXTURES SUBTOTAL								35,443.80			18,455.22	53,899.02
22F — EQUIPMENT & SPECIALTIES												
22F.01	22 33 30 M101	HWH: Electric Storage Water Heater — 50 Gallon, 240V, 4.5 kW — 1 per Unit, 3 per Building Mfr: A.O. Smith or equal ENERGY STAR Rated RSMMeans 2025 #22-33-30.13-0200	EA	0%	3.00	1,250.00	1,212.50	3,637.50	4.50	65.00	851.18	4,488.68
22F.02	22 11 23 M101	CP: Hot Water System Circulating Pump — 1/25 HP, In-Line, Bronze Body Mfr: Taco 006 or equal T-1 Aquastat + Timer Kit RSMMeans 2025 #22-11-23.13-0200	EA	0%	1.00	585.00	567.45	567.45	4.00	65.00	252.20	819.65
22F.03	22 05 23 M101	Gate Valves — 1/2" through 3", Brass Ball Valve Type, at All Service Isolation Points Mfr: Watts or equal RSMMeans 2025 #22-05-23.13-0200	EA	0%	84.00	28.00	27.16	2,281.44	0.80	58.00	3,780.67	6,062.11

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22F.04	22 05 19 M101	2-Way Ground Cleanout — 4"DIA, Cast Iron, at Base of All Soil & Waste Stacks Mfr: Josam or equal RSMMeans 2025 #22-05-19.13-0200	EA	0%	22.00	185.00	179.45	3,947.90	1.80	58.00	2,227.90	6,175.80
22F.05	22 05 16 M101	Trap Primer — 1/2"DIA Supply, T&P Type, at All Floor Drain P-Traps Mfr: Mifab or equal 1/2"DIA Provide Trap Primer Supply Line RSMMeans 2025 #22-05-16.13-0200	EA	0%	25.00	125.00	121.25	3,031.25	1.50	58.00	2,109.75	5,141.00
22F.06	22 11 16 M101	Thermostatic Balancing Valves — Automatic, at Each Unit Hot Water Supply Provide Automatic Thermostatic Balancing Valves — 1 per unit RSMMeans 2025 #22-11-16.23-1400	EA	0%	21.00	185.00	179.45	3,768.45	1.20	58.00	1,417.75	5,186.20
22F — EQUIPMENT & SPECIALTIES SUBTOTAL								17,233.99			10,639.45	27,873.44
MAT SUBTOTAL (for sales tax basis)												\$181,383.94
DIV 22 DIRECT COST												\$285,449.20
OVERHEAD (10%)												\$28,544.92
PROFIT (10%)												\$28,544.92
CONTINGENCY (5%)												\$14,272.46
SALES TAX ON MATERIAL ONLY (0%)												\$0.00
LABOR BURDEN (INCLUDED IN RSMMeans RATES — \$0)												\$0.00
DIV 22 TOTAL BID												\$356,811.50

ASSUMPTIONS & EXCLUSIONS | DIV 22 — PLUMBING | Author Estimation LLC

GENERAL ASSUMPTIONS

1. Pricing based on RSMeans 2025 — Atlanta, GA CCI 0.97.
2. All domestic water piping Copper Type L per ASTM B88 unless noted.
3. All sanitary waste and vent piping Cast Iron No-Hub above grade; PVC Sch. 40 underground.
4. All hot water piping insulated with 1" THK R-4 closed-cell foam insulation.
5. All underground piping insulated per drawing note M101.
6. 10% overage on all piping LF quantities for fittings, connections, and waste.
7. Fixture count: 21 units — 1 WC, 1 LAV, 1 TUB/SH, 1 KS per unit typical.
8. Water heater: 1 per unit = 21 EA total; shown as 3 per building × 7 buildings.

SCOPE INCLUSIONS

1. Cold water service from meter to all unit supply points — full distribution.
2. Hot water distribution and return piping — all units, with circulation pump.
3. All sanitary waste and vent stacks — above grade and underground to building drain.
4. Roof drains and overflow scuppers — all roof areas.
5. Storm drain piping — above grade and underground to site connection.
6. All plumbing fixtures — WC, LAV, TUB/SH, KS per unit fixture schedule.
7. Water heaters — 1 per unit, 50-gallon electric storage.
8. Circulating pump, aquastat, and timer kit.
9. Gate valves, cleanouts, trap primers, thermostatic balancing valves.
10. 3" water meter and 3" lead-free backflow preventer at service entry.
11. Hose bibs — 7 EA exterior, 1 per building.

SCOPE EXCLUSIONS

1. Site domestic water service from street to building (see Division 33).
2. Site sanitary sewer from building to main (see Division 33).
3. Fire suppression system (see Division 21).
4. Gas piping — poly or copper (see Division 22 50 00 or separate contract).
5. Dishwasher, washer, and refrigerator connections (see Division 11).
6. Floor drains beyond elevator pit sump (coordinate with architectural drawings).
7. Plumbing permit fees — included in Division 01 general requirements.
8. Condensate drain piping from HVAC equipment (see Division 23).

MEASUREMENT CONVENTIONS

- M-1. Piping LF measured centerline from source to fixture; 10% overage covers fittings and waste.
- M-2. Fixtures counted EA per fixture schedule — includes rough-in and trim.
- M-3. Water heaters priced EA — includes supply, return, T&P relief valve, and drain pan.
- M-4. Roof drains EA per drain schedule — includes clamping ring, dome strainer, and flashing collar.
- M-5. Gate valves EA counted from valve schedule — includes both supply and isolation valves.
- M-6. Cleanouts EA at base of each stack — 2-way ground cleanout per project file convention.
- M-7. Vent piping LF = total stack height + horizontal run to roof penetration.
- M-8. Underground piping delineation: below finished floor slab to 5'-0" outside building footprint.

ASSUMPTIONS & EXCLUSIONS | DIV 22 — PLUMBING | Author Estimation LLC

LABOR & COMPLIANCE

- Labor burden included in RSMeans burdened labor rates — NOT added separately to this estimate.
- Prevailing wage / union labor NOT included. Open shop rates per RSMeans 2025.
- Pricing valid 30 days from bid date. Copper pricing subject to market fluctuation.
- Licensed plumber required per Georgia State Plumbing Code — verify subcontractor licensing.

ALTERNATES — DIV 22 — PLUMBING | Author Estimation LLC

ALT #	CSI CODE	DESCRIPTION	ADD (\$)	DEDUCT (\$)	NOTES
ALT-22-01	22 33 30	UPGRADE: Electric Storage Water Heater to Tankless Gas (Navien NPE-240A) On-demand, 0.97 EF, wall-mounted — requires gas rough-in	\$8,400.00		All 21 units
ALT-22-02	22 11 16	UPGRADE: Copper Type L to PEX-A (Uponor AquaPEX) for All Distribution Piping Manifold system, reduces fittings, faster install		\$12,800.00	All above-grade domestic piping
ALT-22-03	22 42 13	UPGRADE: Standard WC to Dual-Flush 1.1/1.6 GPF — All 21 Units American Standard H2Option or equal — WaterSense certified	\$3,200.00		All 21 WC fixtures
ALT-22-04	22 14 23	ADD: Duplex VFD Domestic Water Booster Pump (DWB-C/1) Quantum Series or equal — for multi-story pressure requirements	\$12,500.00		Building -1 only
ALT-22-05	22 13 16	UPGRADE: PVC Underground Sanitary to Cast Iron Below Slab Meet local code where PVC underground is restricted	\$6,800.00		Underground waste only