



22nd Edition
Richard Pray
Bilandra Chase

2026 NATIONAL HOME IMPROVEMENT ESTIMATOR

Labor costs, material costs, city cost
modifiers and selling prices on
all home improvement projects





2026 NATIONAL HOME IMPROVEMENT ESTIMATOR

\$118.75

Edited by Bilandra Chase and Richard Pray
22nd Edition



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Acknowledgments

Portions of chapters 8, 9 and 15 first appeared in the book *Renovating & Restyling Older Homes* by Lawrence Dworin. Mr. Dworin served as a resource in the development of this manuscript and contributed many valuable insights from his years of experience in the industry. Mr. Dworin is the author of both *Renovating & Restyling Older Homes* and *Profits in Buying & Renovating Homes*. Both are available from Craftsman Book Company.

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ISBN 978-1-57218-410-7
Published September 2025 for the year 2026.

Contents

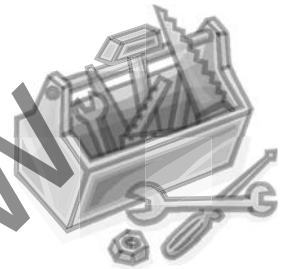
1 Pricing Home Improvement Jobs	5	7 Roofing and Flashing.....	117
This book works two ways	8	Flashing leaks	118
Craft codes and crews.....	15	Roof repairs.....	121
Area modification factors	18	Roofing material.....	122
2 Demolition	27	<i>Cost estimates</i>	
Before you begin	27	Roof repairs	129
<i>Cost estimates</i>		Composition shingles.....	130
Equipment rental	29	Built-up roofing.....	131
Sitework demolition.....	30	Roof patching	134
Building demolition	31	Wood shingle roofing.....	137
Wood framing demolition	34	Slate and tile roofing	139
3 Foundations and Slabs	37	Roof flashing.....	141
Pre-construction checklist.....	38	Gutters and downspouts.....	146
<i>Cost estimates</i>		8 Windows	147
Equipment rental	40	Window repair	149
Concrete flatwork.....	41	Sash repair	151
Concrete finishing.....	50	Counterweighted windows	152
4 Rough Carpentry.....	53	Adding or moving a window	153
Floor beams	53	<i>Cost estimates</i>	
Wood floor repairs.....	56	Window repairs.....	156
Wall framing	57	Vinyl windows	157
Roof repairs.....	58	Aluminum windows.....	161
<i>Cost estimates</i>		Wood windows	163
Framing repairs.....	62	Storm windows.....	165
Framing room additions.....	64	Window accessories.....	165
Subflooring.....	66	Window glazing	169
Wall and ceiling changes	70	Skylights	172
Roof framing changes	75	9 Doors	175
5 Insulation and Moisture Control	79	Door repair and replacement	175
Ceiling insulation.....	79	Adding or moving a door.....	182
Wall and floor insulation.....	80	Hanging a slab door	184
Attic and roof ventilation	83	Door terms	188
<i>Cost estimates</i>		<i>Cost estimates</i>	
Fiberglass insulation	84	Exterior doors	191
Panel insulation	85	Prehung doors.....	197
Vapor barrier.....	87	Screen and storm doors	202
Vents and louvers.....	88	Interior doors	206
Roof ventilators.....	91	Patio doors.....	214
6 Siding and Trim.....	93	Closet doors	218
Vinyl siding installation	96	Garage doors	223
Wood siding installation	97	10 Walls and Ceilings	227
Estimating procedure for siding	104	Drywall installation	228
Masonry fireplaces	104	Wood paneling	235
<i>Cost estimates</i>		Removing partitions.....	239
Siding and soffit repairs.....	105	<i>Cost estimates</i>	
Vinyl siding	107	Drywall	242
Wood board siding	108	Textured finishes for drywall	244
Texture 1-11 plywood siding.....	111	Drywall bead and tools	247
Fiber cement siding	112	Wall paneling	251
Aluminum siding and soffit.....	113	Suspended ceilings	255
Stucco and masonry siding	114	Moldings.....	259
		Partition walls	264

11 Floors and Tile	267
Wood flooring installation	268
Ceramic tile installation.....	272
<i>Cost estimates</i>	
Wood strip and plank flooring	274
Laminate plank flooring	279
Vinyl flooring.....	282
Ceramic tile.....	289
Natural stone and slate flooring	294
Ceramic field wall tile	297
Carpet	304
12 Kitchens.....	305
Kitchen cabinet standards.....	308
<i>Cost estimates</i>	
Kitchen demolition	311
Cabinets and countertops	313
Cabinet knobs, pulls and hinges	320
Sinks and faucets.....	321
Appliances	332
13 Bathrooms	339
Bathroom additions.....	339
<i>Cost estimates</i>	
Tubs, enclosures and shower stalls	346
Tub and shower faucets	349
Toilets	350
Lavatory sinks	353
Vanity cabinets and countertops.....	358
Bath exhaust fans.....	362
Medicine cabinets.....	366
Bathroom accessories.....	369
14 Plumbing and HVAC	371
Heating types and considerations	371
Framing for plumbing and HVAC.....	374
<i>Cost estimates</i>	
Furnace replacement.....	376
Chimney flue components	379
Water heaters	385
DWV pipe replacement.....	387
15 Electrical.....	389
Wiring residences	391
Adding outlets and switches.....	394
<i>Cost estimates</i>	
Non-metallic cable.....	397
PVC conduit and fittings.....	400
EMT conduit and fittings	402
Flex conduit and fittings	406
Rigid and IMC conduit and fittings	409
Switches and receptacles.....	414
Distribution panels	416
Lighting.....	420
Smart home electrical mgmt. system.....	424

16 Porches and Decks	425
Adding a porch.....	426
Elevated decks	428
<i>Cost estimates</i>	
Deck lumber.....	432
Alternative deck materials	434
Porch and deck stairs.....	437
Pool replastering	440
Spa replastering.....	440
17 Painting and Finishing.....	441
Paint application techniques	444
<i>Cost estimates</i>	
Labor estimates for painting.....	446
Stains and finishes	467
Wood preservatives.....	470
Interior paints	472
Exterior paints	474
18 Earthquake Damage	477
Types of damage	477
What FEMA recommends.....	479
When making alterations	484
When adding a room	485
Checking for earthquake damage.....	486
Repair of foundations and floor slabs.....	487
Framing repairs	488
Cracks in plaster and stucco	489
Fireplaces and chimneys.....	490
Mechanical, electrical, and plumbing systems.....	491
<i>Cost estimates</i>	
Foundation anchors and brackets.....	492
Cripple wall bracing	492
Hold-down anchors.....	492
Bracing a water heater	492
Framing straps and braces	492
Concrete repairs	493
Straighten a frame wall	494
Straighten a window opening	494
Plaster and stucco repair	494
19 Water Damage and	
Mold Remediation	495
Building Dryout	495
Mold Remediation.....	505
<i>Cost estimates</i>	
Water extraction	509, 511
Pre-drying	509
Remove appliances	510
HVAC system cleaning	510
Carpet removal	511
Drywall repairs	512
Demolition.....	512-514
Cleanup after water extraction	514
Mold inspection and remediation protocol.....	515
Containment structure.....	516
Remove mold by abrading.....	517
Encapsulation	517
Personal protection equipment	518
Air movers, dryers and drying systems.....	519
Other dryout and mold equipment	520
Index.....	521

Pricing Home Improvement Jobs

1



Estimating home improvement costs requires specialized skills. You can't price home improvement work the same way you'd price new construction. The proportion of labor expense is greater. There's far more risk because there are far more variables and unknowns. An example will make this clear.

Hanging doors in new construction is a 1-2-3 affair. You know ahead of time exactly what's required. You built the wall, installed the frame and know each door will fit right the first time. There won't be any surprises. An experienced estimator can forecast the cost of hanging a door in a new home with a high degree of confidence.

Now let's look at the same task on a home improvement project. First, remember that you may be hanging only one door. There's no chance to improve the production rate on second or later doors. Installing this one door is probably different from the last door you installed on a similar project and will be different from your next door installation.

Work starts with removing the old door. That's probably not too hard — once you break through several coats of accumulated paint on the hinges. Let's assume you work carefully and don't damage the casing or trim. The next step is to install a blind Dutchman where the original hinges were attached. If the frame's badly chewed up from years of neglect and abuse, you'll have to remove and replace the entire frame. Don't forget that the building has settled over the years. The frame has probably twisted out of plumb. More time will be needed to shim and level the frame.

Finally, the door is installed and swings smoothly. But the job still isn't finished. You still have to paint the door to match and will certainly have to haul away the old door and the debris.

Every home improvement cost estimate comes with dozens of chances to make an expensive mistake. Surprises are inevitable and nearly all surprises will add to the cost, not reduce the cost. Estimating new construction is a snap by comparison.

All home improvement has similar problems:

- ❖ No chance for economies of scale (mass production),
- ❖ Difficulty in removing just enough of the old,
- ❖ Work doesn't follow the normal (from the ground, up) sequence of construction,
- ❖ Difficulty adding new materials to deteriorated or nonstandard existing materials,
- ❖ The need to match designs, colors and textures,
- ❖ Covering up for another contractor's mistakes,
- ❖ Struggling to get access to the place where the work is to be done,
- ❖ Protecting adjacent surfaces and pathway to the work area,
- ❖ Initial uncertainty about how much work is needed.

Now notice the word *risk* in first paragraph above. There are at least two risk categories in every home improvement job. The first is risk from the unknown – work you didn’t expect and couldn’t foresee. But there’s another type of risk that’s entirely different: That the owner won’t be satisfied with what you’ve done or the way you’ve done it. Nearly all home improvement is intended to solve a problem, something the owner wants or doesn’t want. Until that problem is resolved (at least in the mind of the owner) your work is not done. That makes owner satisfaction the essence of every home improvement project. Meeting requirements of the building code is never enough. You have to satisfy the owner. Worse still, many states require a very specific set of notices and disclosures in home improvement contracts. A home improvement contract that omits any of these notices and disclosures is an “unfair act or practice” and may subject the contractor to criminal penalties.

If you’re an experienced home improvement contractor, you understand this already. Whether experienced or not, you know full well that accurate pricing is crucial to survival in the home improvement business. Unfortunately, most home improvement specialists have far less experience in pricing their work than in getting the work done. No wonder so many home improvement companies wink out after a few years.

But it doesn’t have to be that way.

The chapters that follow explain how to price each type of home improvement work. Emphasis will be on avoiding risk — pricing pitfalls that can turn any home improvement contract into a financial nightmare.

No Price Fits All Jobs

There’s no single way to arrive at the correct price for home improvement work. Neither is there a single correct price for most home improvement projects. But there are both good and bad ways to estimate prices and there are good and bad prices for any proposed job. Your task as a home improvement estimator is to produce consistently good estimates on most jobs. If you’re already doing that, congratulations. You don’t need this book. Return it where you bought it and get a refund. But if you’re not, information in the following chapters will make or save you many times what you paid for the book.

It’s accepted wisdom among home improvement specialists that salespeople need authority to quote prices when closing a sale. When trying to wrap up a deal, there’s no substitute for having current cost information at your fingertips. That’s especially true on larger jobs where you’ve prepared detailed plans and a written estimate. The owner will have questions and suggestions that change the job specs. If you want to close the sale then and there, you’d better know how much to add or subtract for each change the owner wants.

Most home improvement companies authorize salespeople to quote prices from an approved list in a price book. That simplifies the salesperson’s job, eliminates most major errors, and saves the owner of the company from approving every item in every estimate. In our opinion, quoting from a price book is the only way to

build sales volume in the home improvement business. That means every home improvement contractor needs a good price book.

Of course, the best price book for your company would be based on your actual cost experience — work done by your crews on your jobs with materials from your dealers and installed by your subcontractors. Since every contractor uses different crews, subcontractors and suppliers, every price book should be different. And, of course, prices in the company price book should be revised regularly to reflect current labor and material costs.

Having admitted that there's no substitute for developing your own price book, we'll suggest that you not bother. Most home improvement contractors don't have the time or patience to maintain current installed prices for thousands of repair and remodeling items. Even if you did, spending hundreds of hours a year keeping a price book current would be a waste of time. Prices for home improvement work are usually negotiated on site. There's little value in keeping a book of exact costs if you have to cut a special deal to close each sale.

Instead, we suggest that you let this manual serve as your company price book. Using the prices in this book (and included software download) will eliminate most of the common estimating mistakes. If your labor costs are higher or if your crews aren't as skilled as most tradesmen, you may have to increase the selling prices listed here to make a reasonable profit. And, of course, sometimes you're going to have a job with costs that exceed what any reasonable estimate could have predicted. This manual isn't a substitute for the exercise of good judgment. That's always your job.

Cost Plus Markup Equals Selling Price

The difference between your cost and your selling price is your markup. Markup varies widely from job to job, far more than either material cost or labor cost. You're the final authority on markup. You decide what markup fits best — based on market conditions, your client, and the profit you feel is reasonable. Once you decide on the "right" markup, it's easy to plug that percentage into the bid, assuming you use *National Estimator Cloud*.

Markup vs. Margin				
Hard Cost	Price at 50% Markup	Price at 70% Markup	Price at 100% Markup	Price at 150% Markup
\$50	\$75	\$85	\$100	\$125
\$100	\$150	\$170	\$200	\$250
\$200	\$300	\$340	\$400	\$500
\$300	\$450	\$510	\$600	\$750
\$400	\$600	\$680	\$800	\$1,000
\$500	\$750	\$850	\$1,000	\$1,250
\$1,000	\$1,500	\$1,700	\$2,000	\$2,500
\$2,000	\$3,000	\$3,400	\$4,000	\$5,000
\$3,000	\$4,500	\$5,100	\$6,000	\$7,500
\$4,000	\$6,000	\$6,800	\$8,000	\$10,000
\$5,000	\$7,500	\$8,500	\$10,000	\$12,500
\$6,000	\$9,000	\$10,200	\$12,000	\$15,000
\$7,000	\$10,500	\$11,900	\$14,000	\$17,500
\$8,000	\$12,000	\$13,600	\$16,000	\$20,000
\$9,000	\$13,500	\$15,300	\$18,000	\$22,500
\$10,000	\$15,000	\$17,000	\$20,000	\$25,000
\$11,000	\$16,500	\$18,700	\$22,000	\$27,500
\$12,000	\$18,000	\$20,600	\$24,000	\$30,000
\$13,000	\$19,500	\$22,100	\$26,000	\$32,500
\$14,000	\$21,000	\$23,800	\$28,000	\$35,000
\$15,000	\$22,500	\$25,500	\$30,000	\$37,500
\$16,000	\$24,000	\$27,200	\$32,000	\$40,000
\$17,000	\$25,500	\$28,900	\$34,000	\$42,500
\$18,000	\$27,000	\$30,600	\$36,000	\$45,000
\$19,000	\$28,500	\$32,300	\$38,000	\$47,500
\$20,000	\$30,000	\$34,000	\$40,000	\$50,000
\$30,000	\$45,000	\$51,000	\$60,000	\$75,000
\$40,000	\$60,000	\$68,000	\$80,000	\$100,000
\$50,000	\$75,000	\$85,000	\$100,000	\$125,000
Hard Cost	33% Margin	41% Margin	50% Margin	60% Margin

Figure 1-1

Markup (based on cost) vs. Margin (based on selling price)

Every construction contractor needs to distinguish between “markup” and “profit.” Markup is what you add to estimated labor and material costs (usually called “hard costs”) to find the selling price. Profit is what you have left when all bills have been paid. The two are very different. Profit is just the frosting on the cake.

Markup is also different from “margin.” Figure 1-1 shows percentages of markup for various levels of hard costs. For example, if your markup on a \$20,000 job is 50 percent, the selling price will be \$30,000. The margin on that job is 33 percent, \$10,000 divided by the selling price of \$30,000. (Note the bottom row in Figure 1-1.) Margin is what’s left after hard costs are recovered and includes profit.

Many successful home improvement contractors find they can stay in business if hard costs are 59 percent of selling price. Hard costs include material expense, subcontract costs and labor (including taxes and insurance). The other 41 percent of selling price (“margin”) compensates the sales staff, covers overhead, supervision and contingency, and should yield a modest profit. From Figure 1-1, you can see that markup on hard costs has to be 70 percent to yield a margin of 41 percent.

To put this formula to work in your home improvement company, add 70 percent to your hard costs to find the selling price. Of course, some jobs need more markup and others can get by on less. A smaller job with more risk done for a demanding client may require greater markup. A larger job done mostly by subcontractors can usually carry a smaller markup.

Home improvement contractors have all the overhead of any business: office rent, telephone, owner’s salary, office salaries, legal and accounting expense, insurance, auto and truck expense, and more. But unlike other contractors, home improvement specialists routinely deal with high risk, as explained earlier. Since most of what you didn’t or couldn’t anticipate will inflate your costs, you’re assuming significant risk. That’s why markups for home improvement work have to be higher than for new construction.

Naturally, competition dictates markup. If you’re not getting enough work at 70 percent markup, maybe 70 percent is too much for your area. But remember that you shouldn’t have to bid remodeling work on a level playing field. New construction usually goes to the lowest responsible bidder. A creative salesman who follows the recommendations in this book has an advantage over lowball bidders who rely on price alone to sell their services.

If you have trouble using *National Estimator Cloud*, we’ll be glad to help, and we don’t charge you for it.

Free telephone assistance is available from 8 a.m. until 5 p.m. Pacific time Monday through Friday (except holidays). Call 760-438-7828, Ext. 2.



Two Ways to Use These Estimates

This manual is also available by subscription on the Web as part of *National Estimator Cloud*. For only a few dollars a month, you get all ten of Craftsman’s 2026 construction cost estimating guides. Each has about 400 pages of current labor and material costs for construction – all neatly organized and indexed. Use these costs to build estimates, bids and invoices for nearly any type of home improvement project.

National Estimator Cloud:

- Prints estimates, bids and invoices as Word, Excel or PDF documents.
- Runs as a secure app on the Web so you can write estimates anywhere you have a Web connection.
- Exports invoices to QuickBooks, either desktop or the online.
- Bids and invoices can show as much or as little detail as you want.
- Material costs are updated regularly as prices change.
- Costs only a few dollars a month. Cancel any time you want.

Estimates That Work Two Ways

This manual is designed for use by both the owner of a home improvement business and by company sales staff. Prices in the printed version of this manual include both hard costs (labor and material) and a recommended selling price (usually based on 70 percent markup). Sales staff will use the selling price. Prices in *National Estimator Cloud* don't include markup. *National Estimator Cloud* makes it easy to apply whatever markup percentage you select.

Figure 1-2 shows the last page of an estimate for the Stillwell room addition, including 70 percent markup. The company estimator can create an estimate like this from a job survey prepared by a sales representative. Figure 1-2 is for company use and was created with the *National Estimator Cloud*.

Figure 1-3 shows the last page of a bid for the same job. This is what the customer sees. *National Estimator Cloud* creates bids like this from your estimate. Figure 1-2, the estimate, shows 70 percent markup on hard costs. Figure 1-3, the proposal, doesn't show any markup at all. Instead, markup has been distributed proportionately throughout each cost item in the job – material, labor,

Qty	Craft@Hours	Unit	Material	Labor	Equipment	Total
3.00	2P @ .750	Ea	5.13	16.89	-	22.02
Roll 1st coat of water base stain on rough sawn or resawn wood siding Medium 225 SF/MH, 213 SF/Gal						
17.00	2P @ 7.55	CSF	149.60	170.00	-	319.60
Roll & brush 1st finish coat of water base enamel on vanity cabinet Medium 103 SF/MH, 288 SF/Gal						
0.90	2P @ .874	CSF	6.69	19.68	-	26.37
Roll 1st coat of water base stain on rough sawn or resawn wood siding Medium 225 SF/MH, 213 SF/Gal						
17.00	2P @ 7.55	CSF	149.60	170.00	-	319.60
Add for grouting cores per linear foot of core, pumped in place 4" thick wall, (8.86 VLF per CF)						
1.00	M1 @ .011	VLF	1.31	0.64	-	1.95
Roll 2nd coat of water base stain on rough sawn or resawn wood siding Medium 275 SF/MH, 273 SF/Gal						
17.00	2P @ 6.19	CSF	116.79	139.40	-	256.19
** Subtotal: Painting						
56.8			1,607.75	1,314.17	-	2,921.92
Total Manhours, Material, Labor, and Equipment:						
406			17,719.83	9,859.62	2.56	27,582.01
Total Only (Subcontract) Costs:						
						7,292.50
Subtotal:						34,874.51
70.00% Markup						24,412.16
Estimate total:						59,286.67
8.25% Tax on Materials:						1,461.89
Grand total:						60,748.56

Figure 1-2

Estimate with a 70 percent markup shown

Description	Quantity	Rate	Amount
Roll & brush 1st finish coat of water base enamel on vanity cabinet			
Medium 103 SF/MH, 288 SF/Gal			
Material, per CSF	0.90	13.24	11.92
Labor, per CSF	0.90	37.18	33.46
Roll 1st coat of water base stain on rough sawn or resawn wood siding			
Medium 225 SF/MH, 213 SF/Gal			
Material, per CSF	17	15.69	266.73
Labor, per CSF	17	17.00	289.00
Add for grouting cores per linear foot of core, pumped in place			
4" thick wall, (8.86 VLF per CF)			
Material, per VLF	1	2.34	2.34
Labor, per VLF	1	1.09	1.09
Roll 2nd coat of water base stain on rough sawn or resawn wood siding			
Medium 275 SF/MH, 273 SF/Gal			
Material, per CSF	17	12.25	208.25
Labor, per CSF	17	13.94	236.98
*Painting subtotal			5,100.30
Total Material, Labor, and Equipment			48,352.66
Total Only (Subcontract) Costs			12,397.25
*Grand Total			60,749.91

Figure 1-3

Proposal for the same job not showing the markup

equipment and subcontract. *National Estimator Cloud* does this distribution at the click of a mouse button. Notice that the total is nearly the same in both documents, \$60,749.91. (The \$1.35 difference is due to rounding when markup is distributed among hundreds of unit costs.)

National Estimator Cloud offers dozens of choices on what you show and what you hide in estimates, bids and invoices. Each can be as long (full description for everything in the estimate) or as short (only a summary of each category) as you want. You can show or hide labor and material cost detail. You can show or hide markup and profit. You can print estimates, bids and invoices in either Word (RTF), PDF or Excel (XLS) format.

Once work begins, you'll want to monitor job expenses to be sure actual costs remain consistent with estimated costs. If you use QuickBooks to pay bills and figure payroll, let QuickBooks do the comparisons for you. *National Estimator Cloud* exports invoices to QuickBooks -- either the full invoice for the job or just an invoice for the percentage of each task completed in the current pay period.

If you send progress invoices, *National Estimator Cloud* keeps track of what's been completed and billed and what hasn't been billed yet. When a change order increases the contract price, simply add the new item to your estimate. That item will show up on your next progress invoice at whatever percent of completion you select.

Job Survey (Scope of Work)

Of course, neither a good price book nor a computer estimating program will solve every estimating problem. Computers seldom make mistakes in addition or multiplication. But nothing prevents making an expensive estimating mistake on your own. By far the most common estimating mistake is omitting something essential to the job.

Get in the habit of completing an exhaustive job survey before beginning any estimate for home improvement work. Some of your estimates on a job may be too high. Other estimates on a job may be too low. With any luck, your over-estimates will roughly balance with your under-estimates, leaving the job total about where it should be. But the estimated price for anything omitted from a job survey is always zero. That's a 100 percent miss. It's hard to balance a complete miss with anything. A few of those can create a financial disaster.

Material Costs in This Book

Material Costs for each item are listed in the column headed "Material." These are neither retail nor wholesale prices. They are estimates of what most contractors who buy in moderate volume will pay suppliers as of early-2026. Discounts may be available for purchases in larger volumes.

Material costs can change rapidly. Material prices in *National Estimator Cloud* are revised regularly as material prices change and may be different from material prices in this manual.

Add Delivery Expense to the material cost for other than local delivery of reasonably large quantities. Cost of delivery varies with the distance from source of supply, method of transportation, and quantity to be delivered. But most material dealers absorb the delivery cost on local delivery (5 to 15 miles) of larger quantities to good customers. Add the expense of job site delivery when it's a significant part of the material cost. *National Estimator Cloud* makes it easy to add sales tax to your estimates, bids and invoices.

Add Sales Tax when sales tax will be charged to the contractor buying the materials. In some states, contractors have to collect sales tax based on the contract price. No matter what your state (or county) requires, *National Estimator Cloud* makes it easy to add sales tax to your estimates, bids and invoices.

Waste and Coverage Loss is included in the installed material cost. The cost of many materials per unit after installation is greater than the purchase price for the same unit because of waste, shrinkage or coverage loss during installation. For example, about 120 square feet of nominal 1" x 4" square edge boards will be needed to cover 100 square feet of floor or wall. There's no coverage loss with plywood sheathing, but waste due to cutting and fitting will average about 6 percent.

Costs in the Material column of this book assume normal waste and coverage loss. Small and irregular jobs may require a greater waste allowance. Materials priced without installation (with no labor cost) don't include an allowance for waste and coverage except as noted.

Labor Costs for installing the material or doing the work described are listed in the column headed Labor. The labor cost per unit is the labor cost per hour multiplied by the manhours per unit shown after the @ sign in the Craft@Hrs column. Labor cost includes the basic wage, the employer's contribution to welfare, pension, vacation and apprentice funds, and all tax and insurance charges based on wages. Hourly labor costs for the various crafts are listed on page 15.

Supervision Expense to the general contractor isn't included in the labor cost. The cost of supervision and non-productive labor varies widely from job to job. Calculate the cost of supervision and non-productive labor and add this to the estimate.

Payroll Taxes and Insurance are included in the labor cost. See page 15 for more on the "contractor's burden."

Manhours per Unit and the Craft performing the work are listed in the Craft@Hrs column. To find the units of work done per worker in an 8-hour day, divide 8 by the manhours per unit. To find the units done by a crew in an 8-hour day, multiply the units per worker per 8-hour day by the number of crew members.

Manhours include all productive labor normally associated with installing the materials described.

This will usually include tasks such as:

- ❖ Unloading and storing construction materials, tools and equipment on site.
- ❖ Moving tools and equipment from a storage area or truck on site at the beginning of the day.
- ❖ Returning tools and equipment to a storage area or truck on site at the end of the day.
- ❖ Normal time lost for work breaks.
- ❖ Planning and discussing the work to be performed.
- ❖ Normal handling, measuring, cutting and fitting.
- ❖ Keeping a record of the time spent and work done.
- ❖ Regular cleanup of construction debris.
- ❖ Infrequent correction or repairs required because of faulty installation.

Adjust the Labor Cost to the job you're figuring when your actual hourly labor cost is known or can be estimated. The labor costs listed in Figure 1-5 will apply within a few percent on many jobs. But labor costs may be much higher or much lower on the job you're estimating.

If the hourly wage rates listed in Figure 1-5 aren't accurate, divide your known or estimated cost per hour by the listed cost per hour. The result is your adjustment for any figure in the Labor column for that craft. *National Estimator Cloud* makes it easy to compile estimates using your own labor rates.

Adjust for Unusual Labor Productivity. Costs in the Labor column are for normal conditions: experienced craftsmen working on reasonably well-planned and managed home improvement projects with fair to good productivity. Labor estimates assume that materials are standard grade, appropriate tools are on hand, work done by other crafts is adequate, layout and installation are relatively uncomplicated, and working conditions don't slow progress.

Working conditions at the jobsite have a major effect on labor cost. Estimating experience and careful analysis can help you predict the effect of most changes in working conditions. Obviously, no single adjustment will apply on all jobs. But the adjustments that follow should help you produce more accurate labor estimates. More than one condition may apply on a job.

Jobsite conditions affect labor costs

- ❖ Add 10% to 15% when working temperatures are below 40 degrees or above 95 degrees.
- ❖ Add 30% to 35% when temperatures are below 20 degrees. Materials and tools are hard to handle. Bulky clothing restricts freedom of movement.
- ❖ Add 15% to 25% for work on a ladder or a scaffold, in a 36" crawl space, in a congested area, or remote from the material storage point.
- ❖ Add 50% for work in an 18" to 36" crawl space. Allow extra time for cleaning out the area before work begins.
- ❖ Add 200% if portions of the crawl space are less than 18". Allow extra time for passing tools and materials. Few contractors bid on work like this.
- ❖ Deduct 10% when the work is in an open area with excellent access and good light.
- ❖ Add 1% for each 10 feet that materials must be lifted above ground level.
- ❖ Add 5% to 50% for tradesmen with below-average skills. Deduct 5% to 25% for highly-motivated, highly-skilled tradesmen.
- ❖ Deduct 10% to 20% when an identical task is repeated many times for several days at the same site.
- ❖ Add 20% to 50% on small jobs where fitting and matching of materials is required, adjacent surfaces have to be protected and the job site is occupied during construction.
- ❖ Add 25% to 50% for work done following a major flood, fire, earthquake, hurricane or tornado while skilled tradesmen are not readily available. Material costs may also be higher after a major disaster.
- ❖ Add 10% to 35% for demanding specs, rigid inspections, unreliable suppliers, a difficult owner or an inexperienced architect.

Use an Area Modification Factor from pages 18 through 26 if your material, hourly labor or equipment costs are unknown and can't be estimated. Here's how: Use the labor and material costs in this manual without modification. Then add or deduct the percentages shown for labor, material and equipment. Area cost modifications in *National Estimator Cloud* make it easy to adjust all costs in this manual to any US zip or Canadian postal code you select.

Equipment Costs for small tools and expendable supplies (such as saws and tape) are usually considered overhead expense and are covered by your markup. Equipment costs for larger equipment (such as a compressor or backhoe) should be based on the rental rate for the period needed. Equipment rental costs are included in sections where heavy equipment may be needed.

Labor and Material Costs Change. Costs in this manual were compiled in the fall of 2025 and projected to 2026 based on recent price trends. These projections will be accurate for some materials but inaccurate for others. No one can predict material price changes accurately. Costs in *National Estimator Cloud* are revised as prices change and are likely to be different from the cost in this manual.

How Accurate Are These Figures? They're as accurate as possible considering that the estimators who compiled this book don't know your subcontractors or material suppliers, have never met the owner or been on site, have never seen the plans or specs, don't know what building code applies, and have no record of how much work your crews can handle. You wouldn't bid a job under those conditions. And we don't claim that all construction is done at these prices.

Estimating Is an Art, not a science. On many jobs the range between high and low bid will be 20 percent or more. There's room for legitimate disagreement on what the correct costs are, even when complete plans and specifications are available, the date and site are established, and labor and material costs are identical for all bidders.

No cost fits all jobs. Good estimates are custom-made for a particular project and a single contractor through judgment, analysis and experience.

This book isn't a substitute for judgment, analysis and sound estimating practice. It's an *aid* in developing an *informed opinion* of cost. If you're using this book as a sole cost authority for contract bids, you're reading more into these pages than the editors intend.

Use These Figures to compile preliminary estimates, when a "snap" bid is needed to close the deal, and when no actual costs are available. This book will reduce the chance of error or omission on bid estimates, speed "ball park" estimates, and be a good guide when there's no time to get a quote.

Where Do We Get These Figures? From the same sources all professional estimators use: material suppliers, material price services, analysis of plans, specifications, estimates and completed project costs, and both published and unpublished cost studies compiled by both private and government agencies. In addition, we conduct nationwide mail and phone surveys and have the use of several major national estimating databases.

We'll Answer Your Questions about any part of this book and explain how to apply these costs. Free telephone assistance is available from 8 a.m. until 5 p.m. Pacific time Monday through Friday except holidays. Phone 760-438-7828, Ext. 2. We don't accept collect calls and can't estimate the job for you. But if you need clarification on something in this manual, we can help.

Labor Costs and Crews

Throughout this manual you'll see a column headed *Craft@Hrs.* Letters and numbers in this column show our estimates of:

- ❖ Who will do the work (the craft code)
- ❖ An @ symbol which means at
- ❖ How long the work will take (manhours).

For example, suppose you see the following in the *Craft@Hrs* column:

B1@.016

That means we estimate the installation rate for crew B1 at 0.016 manhours per unit. That's the same as 16 manhours per 1,000 units.

Figure 1-4 is a table that defines each of the craft codes used in this book. Notice that crew B1 is composed of two craftsmen: one laborer and one carpenter.

Notice also in the table that the cost per manhour for crew B1 is listed as \$41.64. That's the average for a laborer (listed at \$37.40 per hour) and a carpenter (listed at \$45.88 per hour): \$37.40 plus \$45.88 is \$83.28. Divide by 2 to get \$41.64, the average cost per manhour for crew B1.

In the table, the cost per manhour is the sum of hourly costs of all crew members divided by the number of crew members. That's the average cost per manhour.

Costs in the Labor column in this book are the product of the installation time (in manhours) multiplied by the cost per manhour. For example, in Chapter 4, the labor cost listed for 1/2 BC wall sheathing is \$0.67 per square foot. That's the installation time (0.016 manhours per square foot) multiplied by \$41.64, the average cost per manhour for crew B1.

Figure 1-5 shows hourly labor costs components — base wage, typical fringe benefits, payroll taxes, insurance and the total hourly cost.

Craft Codes		
Craft Code	Cost Per Manhour	Crew Composition
B1	\$41.64	1 laborer, 1 carpenter
B2	\$43.05	1 laborer, 2 carpenters
B3	\$40.23	2 laborers, 1 carpenter
B4	\$45.25	1 laborer, 1 operating engineer, 1 reinforcing iron worker
B5	\$45.06	1 laborer, 1 carpenter, 1 cement mason, 1 operating engineer, 1 reinforcing iron worker
B6	\$40.53	1 laborer, 1 cement mason
B7	\$38.14	1 laborer, 1 truck driver
B8	\$44.25	1 laborer, 1 operating engineer
B9	\$39.01	1 bricklayer, 1 bricklayer's helper
BB	\$44.21	1 bricklayer
BC	\$45.88	1 carpenter
BE	\$48.35	1 electrician
BF	\$42.19	1 floor layer
BG	\$43.85	1 glazier
BH	\$33.80	1 bricklayer's helper
BL	\$37.40	1 laborer
BR	\$43.99	1 lather
BS	\$37.59	1 marblesetter
CF	\$43.66	1 cement mason
CT	\$39.86	1 mosaic & terrazzo worker
D1	\$44.82	1 drywall installer, 1 drywall taper
DI	\$44.11	1 drywall installer
DT	\$44.72	1 drywall taper
HC	\$34.39	1 plasterer helper
OE	\$51.09	1 operating engineer
P1	\$44.45	1 laborer, 1 plumber
PM	\$51.49	1 plumber
PP	\$41.40	1 painter, 1 laborer
PR	\$45.50	1 plasterer
PT	\$45.39	1 painter
R1	\$43.39	1 roofer, 1 laborer
RI	\$47.27	1 reinforcing iron worker
RR	\$49.37	1 roofer
SW	\$49.64	1 sheet metal worker
T1	\$38.84	1 tile layer, 1 laborer
TL	\$40.27	1 tile layer
TR	\$38.87	1 truck driver

Figure 1-4

Craft codes used in this manual

Hourly Labor Cost						
	1	2	3	4	5	6
Craft	Base wage per hour	Taxable fringe benefits (6.37% of base wage)	Insurance and employer taxes (%)	Insurance and employer taxes (\$)	Non-Taxable fringe benefits (5.63% of base wage)	Total hourly cost used in this book
Bricklayer	\$32.19	\$2.05	23.84%	\$8.16	\$1.81	\$44.21
Bricklayer's Helper	\$24.61	1.57	23.84	6.24	1.38	33.80
Building Laborer	\$25.94	1.65	30.27	8.35	1.46	37.40
Carpenter	\$32.08	2.04	29.17	9.95	1.81	45.88
Cement Mason	\$32.20	2.05	22.18	7.60	1.81	43.66
Drywall Installer	\$32.50	2.07	22.29	7.71	1.83	44.11
Drywall Taper	\$32.96	2.10	22.29	7.81	1.85	44.72
Electrician	\$36.52	2.33	19.14	7.44	2.06	48.35
Floor Layer	\$31.00	1.97	22.68	7.48	1.74	42.19
Glazier	\$31.85	2.03	24.15	8.18	1.79	43.85
Lather	\$32.89	2.10	20.43	7.15	1.85	43.99
Marble Setter	\$28.10	1.79	20.49	6.12	1.58	37.59
Millwright	\$32.64	2.08	20.40	7.08	1.84	43.64
Mosaic & Terrazzo Worker	\$29.79	1.90	20.49	6.49	1.68	39.86
Operating Engineer	\$37.21	2.37	23.79	9.42	2.09	51.09
Painter	\$33.09	2.11	23.66	8.33	1.86	45.39
Plasterer	\$32.43	2.07	26.57	9.17	1.83	45.50
Plasterer Helper	\$24.52	1.56	26.57	6.93	1.38	34.39
Plumber	\$37.64	2.40	23.29	9.33	2.12	51.49
Reinforcing Ironworker	\$33.65	2.14	26.80	9.59	1.89	47.27
Roofer	\$31.96	2.04	39.91	13.57	1.80	49.37
Sheet Metal Worker	\$35.94	2.29	24.57	9.39	2.02	49.64
Sprinkler Fitter	\$36.99	2.36	23.88	9.40	2.08	50.83
Tile Layer	\$30.10	1.92	20.49	6.56	1.69	40.27
Truck Driver	\$28.09	1.79	24.79	7.41	1.58	38.87

Figure 1-5*Components of hourly labor costs*

The labor costs shown in Column 6 were used to compute the manhour costs for crews and the figures in the Labor column.

It's important that you understand what's included in the figures in each of the six columns in the table. Here's an explanation:

Column 1, the base wage per hour, is the craftsman's hourly wage. These figures are representative of what many contractors will be paying craftsmen working on home improvement jobs in 2026.

Column 2, taxable fringe benefits, includes vacation pay, sick leave and other taxable benefits. These fringe benefits average 6.37 percent of the base wage for many home improvement contractors. This benefit is in addition to the base wage.

Column 3, insurance and employer taxes in percent, shows the insurance and tax rate for construction trades. The cost of insurance in this column includes workers' compensation and contractor's casualty and liability coverage. Insurance rates

vary widely from state to state and depend on a contractor's loss experience. Note that taxes and insurance increase the hourly labor cost by 30 to 35 percent for most trades. There is no legal way to avoid these costs.

Column 4, insurance and employer taxes in dollars, shows the hourly cost of taxes and insurance for each construction trade. Insurance and taxes are paid on the costs in both columns 1 and 2.

Column 5, non-taxable fringe benefits, includes employer paid non-taxable benefits such as medical coverage and tax-deferred pension and profit sharing plans. These fringe benefits average 5.63 percent of the base wage for many home improvement contractors. The employer pays no taxes or insurance on these benefits.

Column 6, the total hourly cost in dollars, is the sum of columns 1, 2, 4 and 5.

These hourly labor costs will apply within a few percent on many jobs. But wage rates may be much higher or lower in the area where you do business. We recommend using your actual labor cost rather than national averages. That's easy with *National Estimator Cloud*. When copying and pasting costs to your estimate, adjust the assumed hourly labor cost to your actual hourly labor cost. You need do this only once for each trade. And you can make this adjustment at any time. Any change you make is applied to that trade throughout the estimate.

Abbreviations			
4WD	four-wheel drive	EPA	Environmental Protection Agency
ABS	acrylonitrile butadiene styrene	F	Fahrenheit
AC	alternating current	GFCI	ground fault circuit interrupter
ACQ	Alkaline Copper Quat	GRS	galvanized rigid steel
ADA	Americans with Disabilities Act	H	height
ANSI	American Nat. Standards Institute	HOM	higher order mode
APP	atactic polypropylene	HP	horsepower
ASTM	Amer. Society for Testing Materials	HVAC	heating, ventilating & air cond.
AWG	American Wire Gauge	ID	inside diameter
BF	board foot	IMC	intermediate metal conduit
Btr	better	KD	kiln dried
Btu(s)	British thermal unit(s)	KO	knockout
C	Celsius/Centigrade	kW	kilowatt(s)
CF	cubic foot	L	length
CFM	cubic feet per minute	Lb(s)	pound(s)
CLF	100 linear feet	LF	linear foot
CPM	cycles per minute	LS	lump sum
CSF	100 square feet	MBF	1,000 board feet
CY	cubic yard	MDF	medium density fiberboard
d	penny	mm	millimeter(s)
D	depth	Mo	month
DWV	drain, waste & vent	MPH	miles per hour
Ea	each	MSF	1,000 square feet
EMT	electric metallic tube	NEC	National Electrical Code
		NEMA	National Electrical Manufacturer's Assoc.
		OC	spacing from center to center
		OD	outside diameter
		OSB	oriented strand board
		OSHA	Occupational Safety & Health Admin.
		oz.	ounce(s)
		PSI	pounds per square inch
		PVC	polyvinyl chloride
		R	thermal resistance
		S4S	surfaced 4 sides
		SBS	styrene butadiene styrene
		SF	square foot
		SFCA	(per) square foot of contact area
		Sq	100 square feet
		Std	standard
		SY	square yard
		T	thick
		T&G	tongue & groove edge
		UL	Underwriter's Laboratory
		USDA	United States Dept. of Agriculture
		UV	ultraviolet
		W	width
		X	by or times

Figure 1-6

Abbreviations used in this manual

Area Modification Factors

Construction costs are higher in some areas than in other areas. Add or deduct the percentages shown on the following pages to adapt the costs in this book to your jobsite. Adjust your cost estimate by the appropriate percentages in this table to find the estimated cost for the site selected. Where 0% is shown, it means no modification is required. *National Estimator Cloud* will apply an area modification factor for any five-digit zip or Canadian postal code you select.

Modification factors are listed by state and province. Areas within each state are listed by the first three digits of the postal zip code. For convenience, one representative city is identified in each three-digit zip or range of zips. Percentages are based on the average of all data points in the table. Factors listed for each state and province are the average of all data in that state or province. Figures for the zips are the average of all information in that area. And figures in the Total column are the weighted average of factors for Labor, Material and Equipment.

These percentages are composites of many costs and will not necessarily be accurate when estimating the cost of any particular part of a building. But when used to modify costs for an entire structure, they should improve the accuracy of your estimates.

Area Modification Factors

Location	Zip	Mat.	Lab.	Equip.	Total Wtd. Avg.
Alabama Average		-1	-4	0	-3%
Anniston	362	-3	-4	-1	-3%
Auburn	368	-1	-6	0	-3%
Bellamy	369	-2	-10	-1	-6%
Birmingham	350-352	-3	16	-1	6%
Dothan	363	-1	-10	0	-5%
Evergreen	364	-2	-19	-1	-10%
Gadsden	359	-4	-7	-1	-5%
Huntsville	358	1	6	0	3%
Jasper	355	-2	-17	-1	-9%
Mobile	365-366	-1	0	0	-1%
Montgomery	360-361	-1	0	0	-1%
Scottsboro	357	0	-1	0	0%
Selma	367	-1	-4	0	-2%
Sheffield	356	-1	-2	0	-1%
Tuscaloosa	354	0	-8	0	-4%
Alaska Average		14	20	4	16%
Anchorage	995	16	28	5	21%
Fairbanks	997	16	31	5	23%
Juneau	998	18	6	6	12%
Ketchikan	999	3	14	1	8%
King Salmon	996	16	20	5	18%

Location	Zip	Mat.	Lab.	Equip.	Total Wtd. Avg.
Arizona Average		1	-12	0	-5%
Chambers	865	1	-32	0	-14%
Douglas	855	0	-22	0	-10%
Flagstaff	860	2	-20	1	-8%
Kingman	864	1	-20	0	-9%
Mesa	852	1	9	0	5%
Phoenix	850	1	9	0	5%
Prescott	863	3	-13	1	-4%
Show Low	859	1	-23	0	-10%
Tucson	856-857	0	-11	0	-5%
Yuma	853	0	8	0	4%
Arkansas Average		-2	-14	0	-7%
Batesville	725	0	-21	0	-10%
Camden	717	-4	-7	-1	-5%
Fayetteville	727	0	-9	0	-4%
Fort Smith	729	-1	-14	0	-7%
Harrison	726	-1	-31	0	-15%
Hope	718	-3	-21	-1	-11%
Hot Springs	719	-2	-25	-1	-13%
Jonesboro	724	-1	-5	0	-3%
Little Rock	720-722	-1	-4	0	-2%
Pine Bluff	716	-4	-22	-1	-12%

Area Modification Factors

Location	Zip	Mat.	Lab.	Equip.	Total Wtd. Avg.
Russellville	728	0	-15	0	-7%
West Memphis	723	-3	9	-1	3%
California Average		2	14	1	8%
Alhambra	917-918	3	15	1	8%
Bakersfield	932-933	0	-4	0	-2%
El Centro	922	1	-4	0	-1%
Eureka	955	1	2	0	1%
Fresno	936-938	0	-1	0	0%
Herlong	961	2	2	1	2%
Inglewood	902-905	3	15	1	8%
Irvine	926-927	3	24	1	13%
Lompoc	934	3	4	1	3%
Long Beach	907-908	3	17	1	9%
Los Angeles	900-901	3	13	1	8%
Marysville	959	1	0	0	1%
Modesto	953	1	-2	0	0%
Mojave	935	0	10	0	5%
Novato	949	3	23	1	12%
Oakland	945-947	3	33	1	17%
Orange	928	3	22	1	12%
Oxnard	930	3	1	1	2%
Pasadena	910-912	4	15	1	9%
Rancho Cordova	956-957	2	12	1	7%
Redding	960	1	-1	0	0%
Richmond	948	2	35	1	17%
Riverside	925	1	5	0	3%
Sacramento	958	1	12	0	6%
Salinas	939	3	1	1	2%
San Bernardino	923-924	0	4	0	2%
San Diego	919-921	3	9	1	6%
San Francisco	941	3	54	1	26%
San Jose	950-951	3	59	1	29%
San Mateo	943-944	4	37	1	19%
Santa Barbara	931	3	4	1	3%
Santa Rosa	954	3	10	1	6%
Stockton	952	2	5	1	3%
Sunnyvale	940	3	54	1	26%
Van Nuys	913-916	3	13	1	8%
Whittier	906	3	14	1	8%
Colorado Average		2	-2	1	0%
Aurora	800-801	3	14	1	8%
Boulder	803-804	3	8	1	5%
Colorado Springs	808-809	2	-3	1	0%
Denver	802	3	17	1	9%
Durango	813	1	-16	0	-7%
Fort Morgan	807	2	-8	1	-3%
Glenwood Springs	816	2	4	1	3%
Grand Junction	814-815	1	-11	0	-5%
Greeley	806	3	8	1	5%
Longmont	805	3	1	1	2%
Pagosa Springs	811	0	-18	0	-8%
Pueblo	810	-1	-9	0	-5%
Salida	812	2	-12	1	-4%

Location	Zip	Mat.	Lab.	Equip.	Total Wtd. Avg.
Connecticut Average		1	9	0	5%
Bridgeport	66	0	12	0	6%
Bristol	60	1	14	0	7%
Fairfield	64	2	13	1	7%
Hartford	61	0	11	0	5%
New Haven	65	1	8	0	4%
Norwich	63	0	0	0	0%
Stamford	68-69	4	19	1	11%
Waterbury	67	1	8	0	4%
West Hartford	62	1	-2	0	0%
Delaware Average		1	2	0	1%
Dover	199	1	-7	0	-3%
Newark	197	2	7	1	4%
Wilmington	198	0	6	0	3%
District of Columbia					
Washington	200-205	2	23	1	12%
Florida Average		-1	-10	0	-5%
Altamonte Springs	327	-1	-4	0	-2%
Bradenton	342	0	-10	0	-5%
Brooksville	346	0	-16	0	-7%
Daytona Beach	321	-2	-20	-1	-10%
Fort Lauderdale	333	3	1	1	2%
Fort Myers	339	0	-14	0	-6%
Fort Pierce	349	-2	-20	-1	-10%
Gainesville	326	-1	-15	0	-7%
Jacksonville	322	-1	1	0	0%
Lakeland	338	-3	-12	-1	-7%
Melbourne	329	-2	-10	-1	-6%
Miami	330-332	2	-7	1	-2%
Naples	341	3	-10	1	-3%
Ocala	344	-3	-22	-1	-12%
Orlando	328	0	-1	0	0%
Panama City	324	-2	-17	-1	-9%
Pensacola	325	-1	-15	0	-7%
Saint Augustine	320	-1	-4	0	-2%
Saint Cloud	347	-1	-2	0	-1%
St Petersburg	337	0	-11	0	-5%
Tallahassee	323	0	-15	0	-7%
Tampa	335-336	-1	2	0	0%
West Palm Beach	334	1	1	0	1%
Georgia Average		-1	1	0	0%
Albany	317	-2	-14	-1	-8%
Athens	306	0	1	0	0%
Atlanta	303	3	34	1	17%
Augusta	308-309	-2	-10	-1	-6%
Buford	305	0	1	0	0%
Calhoun	307	-1	-1	0	-1%
Columbus	318-319	-1	-8	0	-4%
Dublin/Fort Valley	310	-3	-11	-1	-7%
Hinesville	313	-2	11	-1	4%
Kings Bay	315	-2	-17	-1	-9%

Area Modification Factors

Location	Zip	Mat.	Lab.	Equip.	Total Wtd. Avg.
Utah Average		1	-10	1	-4%
Clearfield	840	2	-2	1	0%
Green River	845	1	-23	0	-10%
Ogden	843-844	0	-13	0	-6%
Provo	846-847	2	-16	1	-6%
Salt Lake City	841	2	2	1	2%

Vermont Average		1	-7	0	-3%
Albany	58	1	-11	0	-5%
Battleboro	53	1	-7	0	-3%
Beecher Falls	59	1	-12	0	-5%
Bennington	52	-1	-17	0	-8%
Burlington	54	2	5	1	3%
Montpelier	56	2	-7	1	-2%
Rutland	57	-1	-13	0	-7%
Springfield	51	-1	-7	0	-4%
White River Junction	50	1	2	0	1%

Virginia Average		0	-5	0	-2%
Abingdon	242	-2	-12	-1	-7%
Alexandria	220-223	3	21	1	11%
Charlottesville	229	1	-6	0	-2%
Chesapeake	233	-1	1	0	0%
Culpeper	227	1	-15	0	-6%
Farmville	239	-2	-14	-1	-8%
Fredericksburg	224-225	1	-12	0	-5%
Galax	243	-2	-19	-1	-10%
Harrisonburg	228	1	-14	0	-6%
Lynchburg	245	-2	-3	-1	-2%
Norfolk	235-237	0	8	0	4%
Petersburg	238	-2	-2	-1	-2%
Radford	241	-2	-14	-1	-8%
Reston	201	3	19	1	10%
Richmond	232	-1	7	0	3%
Roanoke	240	-1	-3	0	-2%
Staunton	244	0	-10	0	-5%
Tazewell	246	-3	-24	-1	-13%
Virginia Beach	234	0	-2	0	-1%
Williamsburg	230-231	0	5	0	2%
Winchester	226	0	-13	0	-6%

Washington Average		1	1	1	1%
Clarkston	994	0	-4	0	-2%
Everett	982	2	6	1	4%
Olympia	985	2	-1	1	1%
Pasco	993	0	3	0	1%
Seattle	980-981	3	24	1	13%
Spokane	990-992	0	-6	0	-3%
Tacoma	983-984	2	5	1	3%
Vancouver	986	2	0	1	1%

Location	Zip	Mat.	Lab.	Equip.	Total Wtd. Avg.
Wenatchee	988	1	-7	0	-3%
Yakima	989	0	-15	0	-7%

West Virginia Average		-2	-15	-1	-8%
Beckley	258-259	0	-21	0	-10%
Bluefield	247-248	-1	-25	0	-12%
Charleston	250-253	1	8	0	4%
Clarksburg	263-264	-3	-5	-1	-4%
Fairmont	266	0	-22	0	-10%
Huntington	255-257	-1	-3	0	-2%
Lewisburg	249	-2	-38	-1	-19%
Martinsburg	254	-1	-14	0	-7%
Morgantown	265	-3	-6	-1	-4%
New Martinsville	262	-2	-24	-1	-12%
Parkersburg	261	-3	-16	-1	-9%
Romney	267	-4	-13	-1	-8%
Sugar Grove	268	-3	-24	-1	-13%
Wheeling	260	-3	-8	-1	-5%

Wisconsin Average		-1	0	0	0%
Amery	540	0	-3	0	-1%
Beloit	535	0	5	0	2%
Clam Lake	545	-1	-13	0	-7%
Eau Claire	547	-1	-2	0	-1%
Green Bay	541-543	0	7	0	3%
La Crosse	546	-2	-6	-1	-4%
Ladysmith	548	-2	-8	-1	-5%
Madison	537	2	10	1	6%
Milwaukee	530-534	0	12	0	6%
Oshkosh	549	-1	16	0	7%
Portage	539	0	-1	0	0%
Prairie du Chien	538	-2	-6	-1	-4%
Wausau	544	-1	-6	0	-3%

Wyoming Average		0	-6	0	-3%
Casper	826	-2	3	-1	0%
Cheyenne/Laramie	820	1	-6	0	-2%
Gillette	827	-1	-1	0	-1%
Powell	824	0	-19	0	-9%
Rawlins	823	0	-5	0	-2%
Riverton	825	-1	-16	0	-8%
Rock Springs	829-831	0	-3	0	-1%
Sheridan	828	1	-11	0	-5%
Wheatland	822	0	0	0	0%

UNITED STATES TERRITORIES				
Guam	53	-21	-5	18%
Puerto Rico	2	-47	-5	-21%

VIRGIN ISLANDS (U.S.)				
St. Croix	18	-15	-4	2%
St. John	52	-15	-4	20%
St. Thomas	23	-15	-4	5%

Canadian Area Modification Factors

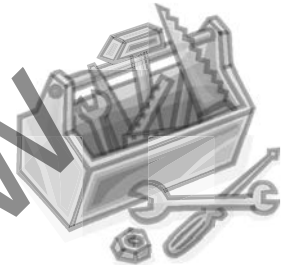
To find the cost in Canada in Canadian dollars, increase the costs in this book by the appropriate percentage listed below. These figures convert costs to Canadian dollars based on \$1.00 Canadian to \$0.76 U.S.

Location	Mat.	Lab.	Equip.	Total Wtd. Avg.
Alberta Average	26	-1	7	13%
Calgary	26	1	7	14%
Edmonton	25	2	7	14%
Fort McMurray	28	-7	7	12%
British Columbia Average	26	-15	7	7%
Fraser Valley	26	-16	7	6%
Okanagan	27	-18	7	6%
Vancouver	26	-11	7	9%
Manitoba Average	20	-22	5	0%
North Manitoba	20	-22	5	0%
Selkirk	20	-22	5	0%
South Manitoba	20	-22	5	0%
Winnipeg	20	-22	5	0%
New Brunswick	16	-47	3	-13%
Moncton	16	-47	3	-13%

Location	Mat.	Lab.	Equip.	Total Wtd. Avg.
Newfoundland/Labrador	19	-29	4	-3%
Nova Scotia Average	17	-36	4	-8%
Amherst	16	-36	3	-8%
Nova Scotia	17	-35	4	-7%
Sydney	17	-37	4	-8%
Ontario Average	22	-11	5	7%
London	22	-10	5	7%
Thunder Bay	24	-14	6	6%
Toronto	21	-9	5	7%
Quebec Average	19	-24	4	-1%
Montreal	19	-24	4	-1%
Quebec City	19	-24	4	-1%
Saskatchewan Average	23	-18	5	4%
La Ronge	24	-21	6	3%
Prince Albert	22	-20	5	2%
Saskatoon	22	-14	5	5%

Demolition

2



Nearly all home improvement projects require some breaking out and removing of existing materials and disposal of debris. Most will require protection of adjacent surfaces, taking safety precautions (such as setting up barricades), closing off doorways or windows, and normal cleanup. The demolition figures in this chapter include these tasks and will apply on most home improvement jobs that don't involve unusual conditions or complications. Costs will be higher when access to the work is limited, when your crew doesn't have complete control of the construction site, or when debris must be moved longer distances or around obstacles. All figures assume that debris is piled on site or in a bin. Add the cost of hauling to the nearest disposal site and tippage charges, if required. No salvage value is assumed except as noted.

Many of the following chapters include estimated costs to remove the old and replace with new materials of a similar description. For example, you'll find costs for removing shingles and replacing shingles in the roofing chapter. That's appropriate because they're part of the same task and usually performed by the same contractor. The estimates in this chapter are for demolition only and don't consider the cost of replacing what has been removed.

Of all construction tasks, demolition is probably the most difficult to estimate with any certainty. You're never sure what's in a wall to be demolished until the job begins. That's why it's best to exclude from your demolition bid what isn't in your estimate. Use the checklist to the right to help identify potential problems before they develop.

Demolition Checklist

- ☐ Can you anticipate any problem getting a demolition permit for this job?
- ☐ Is there a noise ordinance which will limit hours of operation or selection of equipment?
- ☐ Can the debris box be located close to the work?
- ☐ Can a trencher get to the job site?
- ☐ Is the site accessible to wheeled equipment?
- ☐ Will the debris have to be hand-carried to the roll-off box or gondola?
- ☐ Is there a direct route from the demolition site to the debris box?
- ☐ Will you need to re-route any plumbing, electrical, phone or gas lines?
- ☐ Will you need to remove and replace lawn sprinklers?
- ☐ Will you need to cut back or remove any bushes or trees?
- ☐ Will you have to remove and re-install a fence or gate?
- ☐ Does a septic tank or drain field extend into the site of construction?
- ☐ Can (must) materials generated from your project be recycled or salvaged?

Some classes of waste require special treatment. For example, paint cans with liquid paint may have to be delivered to an approved paint disposal facility. Brick and broken concrete delivered to a recycling company may have salvage value. Hot embers should not be removed from the site. Most public dumps and waste pickup services won't accept hazardous materials such as asbestos, explosives, pesticides, contaminated soils, absorbents, fuel oil or medical waste. State law may prohibit mixing of toxic minerals (such as mercury) with other waste materials. Wood, plaster, insulation, styrofoam, tile, and drywall are routinely accepted by most waste disposal companies. If you anticipate problems disposing of debris, get advice from an office of your local county government before bidding the job.

Online Preview

	Day	Week	Month
Equipment Rental for Demolition.			
Air compressors, wheel-mounted			
16 CFM, shop type, electric	83.10	195.00	581.00
30 CFM, shop type, electric	88.90	267.00	800.00
80 CFM, shop type, electric	104.00	317.00	945.00
100 CFM, gasoline unit	142.00	422.00	1,190.00
125 CFM, gasoline unit	175.00	527.00	1,580.00
Paving breakers (no bits included) hand-held, pneumatic			
To 40 lb	58.10	186.00	410.00
41 - 55 lb	93.40	333.00	699.00
56 - 70 lb	77.80	268.00	529.00
71 - 90 lb	134.00	317.00	678.00
Paving breakers jackhammer bits			
Moil points, 15" to 18"	6.00	14.00	30.00
Chisels, 3"	7.00	17.00	44.00
Clay spades, 5-1/2"	10.00	23.00	62.00
Asphalt cutters, 5"	8.00	24.00	51.00
Pneumatic chippers, medium weight, 10 lb	38.20	111.00	309.00
Air hose rental, 50 LF section			
5/8" air hose	11.40	21.80	51.90
3/4" air hose	13.50	28.00	65.40
1" air hose	16.60	38.40	78.90
1-1/2" air hose	25.90	74.70	193.00
Dump truck rental rate plus mileage			
3 CY	482.00	1,270.00	2,470.00
5 CY	510.00	1,350.00	3,890.00
Hammer rental			
Electric brute breaker	67.50	270.00	809.00
Gas breaker	99.60	402.00	1,090.00
Demolition hammer, electric	60.20	241.00	722.00
Roto hammer, 7/8", electric	68.50	274.00	822.00
Roto hammer, 1-1/2", electric	69.50	278.00	672.00
Stump grinder, 9 HP	171.00	685.00	2,050.00
Brush chipper, trailer-mounted 40 HP	345.00	1,010.00	2,510.00
Chain saw, 18", gasoline	74.70	300.00	869.00
Chop saw, 14", electric	43.60	173.00	506.00
Backhoe/loader, wheel-mounted, diesel or gasoline			
1/2 CY bucket capacity, 55 HP	274.00	843.00	1,950.00
1 CY bucket capacity, 65 HP	254.00	784.00	2,370.00
1-1/4 CY bucket capacity, 75 HP	248.00	833.00	2,300.00
1-1/2 CY bucket capacity, 100 HP	441.00	1,210.00	3,110.00
Wheel loader, front-end load and dump, diesel			
3/4 CY bucket, 4WD, articulated	227.00	775.00	2,210.00
1 CY bucket, 4WD, articulated	402.00	1,160.00	3,270.00
2 CY bucket, 4WD, articulated	654.00	1,850.00	4,890.00

	Craft@Hrs	Unit	Material	Labor	Total	Sell
Sitework Demolition						
Debris disposal and removal. Tipping charges for solid waste disposal at the dump vary from \$50 to \$150 per ton. For planning purposes, estimate waste disposal at \$80 per ton, plus the hauling cost. Call the dump or trash disposal company for actual charges. Typical costs are shown below.						
Dumpster, 3 CY trash bin, emptied weekly	—	Mo	—	—	517.00	—
Dumpster, 40 CY solid waste bin (lumber, drywall, roofing)						
Hauling cost, per load	—	Ea	—	—	365.00	—
Add to per load charge, per ton	—	Ton	—	—	89.50	—
Low-boy, 14 CY solid waste container (asphalt, dirt, masonry, concrete)						
Hauling cost, per load (7 CY maximum load)	—	Ea	—	—	351.00	—
Add to per load charge, per ton	—	Ton	—	—	89.50	—
Recycler fees. Recycling construction waste materials can substantially reduce disposal costs. Recycling charges vary from \$100 to \$140 per load, depending on the type of material and the size of the load. Add the cost of hauling to a recycling facility.						
Greenwaste	—	Ton	—	—	48.20	—
Asphalt, per load (7 CY)	—	Ea	—	—	152.00	—
Concrete, masonry or rock, per load (7 CY)	—	Ea	—	—	149.00	—
Dirt, per load (7 CY)	—	Ea	—	—	145.00	—
Mixed loads, per load (7 CY)	—	Ea	—	—	156.00	—
Bush and tree removal. Includes cutting into manageable pieces with power hand tools and dumping debris in a trash bin on site. Add the cost of power equipment rental, if needed.						
Shrubs and bushes, including stump removal.						
4' high, per each	BL@.750	Ea	—	28.10	28.10	47.80
Tree removal. Costs will vary widely depending on the condition, size, location and accessibility of the tree. Small quantities. Includes cutting into manageable pieces with power hand tools and dumping debris in a trash bin or chipper on site. Does not include stump removal or grinding. Add the cost of power equipment rental, bucket truck, and other specialized equipment if needed. Large shade tree removal may require a crew of 5 or more. Use \$2,000 as a minimum job charge for trees with a 26" diameter trunk and larger.						
8" to 12" diameter trunk	B8@5.00	Ea	—	221.00	221.00	376.00
13" to 18" diameter trunk	B8@7.00	Ea	—	310.00	310.00	527.00
19" to 24" diameter trunk	B8@11.0	Ea	—	487.00	487.00	828.00
25" to 36" diameter trunk	B8@14.0	Ea	—	620.00	620.00	1050.00
Stump grinding, using a 9 HP wheel-mounted stump grinder						
6" to 10" diameter stump	B8@.800	Ea	—	35.40	35.40	60.20
11" to 14" diameter stump	B8@1.04	Ea	—	46.00	46.00	78.20
15" to 18" diameter stump	B8@1.30	Ea	—	57.50	57.50	97.80
19" to 24" diameter stump	B8@1.50	Ea	—	66.40	66.40	113.00
Fencing demolition. Remove chain link fence and cemented posts for disposal. These figures assume fencing is removed by cutting ties at posts and rails and rolling the fabric. These rolls can be heavy. A larger crew will be needed on larger jobs.						
To 6' high	BL@.100	LF	—	3.74	3.74	6.36
Remove chain link fence and cemented posts for salvage,						
To 6' high	BL@.120	LF	—	4.49	4.49	7.63
Remove board fence and cemented posts for disposal,						
To 6' high	BL@.100	LF	—	3.74	3.74	6.36

	Craft@Hrs	Unit	Material	Labor	Total	Sell
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Building Demolition

Single-story room demolition. Includes breaking out a concrete or masonry foundation using pneumatic tools, breaking materials into manageable pieces with hand tools and handling debris to a trash bin on site. Includes the cost of erecting a temporary vapor barrier to seal the wall opening in the existing structure. Add the cost of wall patching on the remaining structure. Add the cost of equipment rental.

Demolish a wood-frame addition built on a concrete slab, including grade beams. Use these figures to estimate the cost of demolishing an attached garage.

Per square foot of floor area demolished	BL@.100	SF	—	3.74	3.74	6.36
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Demolish a wood-frame addition built on a conventional foundation, including wood deck, stairs to grade, and the concrete or concrete block foundation.

Per square foot of floor area demolished	BL@.120	SF	—	4.49	4.49	7.63
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Detached garage demolition. Includes breaking materials into manageable pieces with hand tools and handling debris to a trash bin on site. No slab or foundation demolition included. No salvage of materials assumed.

Frame garage with wood or aluminum siding

One-car garage, to 10' wide by 22' deep	BL@16.5	Ea	—	617.00	617.00	1,050.00
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Two-car garage, to 20' wide by 28' deep	BL@23.0	Ea	—	860.00	860.00	1,460.00
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Frame garage with stucco siding

One-car garage to 12' wide by 22' deep	BL@23.5	Ea	—	879.00	879.00	1,490.00
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One-car to 16' wide by 22' deep	BL@28.5	Ea	—	1,070.00	1,070.00	1,820.00
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Two-car garage to 22' wide by 28' deep	BL@42.5	Ea	—	1,590.00	1,590.00	2,700.00
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Brick or block garage

One-car garage to 12' wide by 22' deep	BL@23.0	Ea	—	860.00	860.00	1,460.00
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One-car garage to 16' wide by 22' deep	BL@28.0	Ea	—	1,050.00	1,050.00	1,790.00
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Two-car garage to 20' wide by 22' deep	BL@33.0	Ea	—	1,230.00	1,230.00	2,090.00
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Gutting a building. Interior finish stripped back to the structural walls. Building structure to remain. No allowance for salvage value. These costs include loading and hauling up to 6 miles but no dump fees. Costs are per square foot of floor area based on 8' ceiling height. Add the cost of equipment rental. Figures in parentheses show the approximate "loose" volume of materials after demolition.

Residential building (125 SF per CY)	BL@.100	SF	—	3.74	3.74	6.36
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Building Component Demolition. Itemized costs for demolition of building components when building is being remodeled, repaired or rehabilitated and not completely demolished. Costs include protecting adjacent areas and normal clean-up. Costs are to break out the items listed and pile debris on site or in a bin.

Brick wall demolition. Cost per square foot removed measured on one face. Removed using a pneumatic breaker. Add the cost of equipment rental. Figures in parentheses show the volume before and after demolition and weight of the materials after demolition.

4" thick walls

(60 SF per CY and 36 lbs. per SF)	BL@.061	SF	—	2.28	2.28	3.88
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8" thick walls

(30 SF per CY and 72 lbs. per SF)	BL@.110	SF	—	4.11	4.11	6.99
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	Craft@Hrs	Unit	Material	Labor	Total	Sell
Brick sidewalk demolition. Cost per square foot removed. Add the cost of Bobcat rental. Larger jobs will require a crew of 2 or more. Figures in parentheses show the volume before and after demolition and weight of materials after demolition.						
2-1/2" thick brick on sand base, no mortar bed, removed using hand tools (100 SF per CY and 28 lbs. per SF)	BL@.020	SF	—	.75	.75	1.28
Brick pavers up to 4-1/2" thick with mortar bed, removed using a pneumatic breaker (55 SF per CY and 50 lbs. per SF)	BL@.050	SF	—	1.87	1.87	3.18

Concrete masonry wall demolition. Cost per square foot of wall removed measured on one side. Removed using a pneumatic breaker. Add the cost of equipment rental. Figures in parentheses show the volume before and after demolition and weight of materials after demolition.

4" thick walls (60 SF per CY and 19 lbs. per SF)	BL@.066	SF	—	2.47	2.47	4.20
6" thick walls (40 SF per CY and 28 lbs. per SF)	BL@.075	SF	—	2.81	2.81	4.78
8" thick walls (30 SF per CY and 34 lbs. per SF)	BL@.098	SF	—	3.67	3.67	6.24
12" thick walls (20 SF per CY and 46 lbs. per SF)	BL@.140	SF	—	5.24	5.24	8.91
Reinforced or grouted walls add	—	%	—	—	50.0	—

Concrete foundation demolition (footings). Steel reinforced, removed using a pneumatic breaker. Add the cost of equipment rental. Figures in parentheses show the volume before and after demolition.

Cost per CY (.75 CY per CY)	BL@3.96	CY	—	148.00	148.00	252.00
Cost per LF with width and depth as shown						
6" W x 12" D (35 LF per CY)	BL@.075	LF	—	2.81	2.81	4.78
8" W x 12" D (30 LF per CY)	BL@.098	LF	—	3.67	3.67	6.24
8" W x 16" D (20 LF per CY)	BL@.133	LF	—	4.97	4.97	8.45
8" W x 18" D (18 LF per CY)	BL@.147	LF	—	5.50	5.50	9.35
10" W x 12" D (21 LF per CY)	BL@.121	LF	—	4.53	4.53	7.70
10" W x 16" D (16 LF per CY)	BL@.165	LF	—	6.17	6.17	10.50
10" W x 18" D (14 LF per CY)	BL@.185	LF	—	6.92	6.92	11.80
12" W x 12" D (20 LF per CY)	BL@.147	LF	—	5.50	5.50	9.35
12" W x 16" D (13 LF per CY)	BL@.196	LF	—	7.33	7.33	12.50
12" W x 20" D (11 LF per CY)	BL@.245	LF	—	9.16	9.16	15.60
12" W x 24" D (9 LF per CY)	BL@.294	LF	—	11.00	11.00	18.70

Concrete sidewalk demolition. To 4" thick, cost per SF removed. Figures in parentheses show the volume before and after demolition.

Non-reinforced, removed by hand with sledge (60 SF per CY)	BL@.050	SF	—	1.87	1.87	3.18
Reinforced with wire mesh. Mesh cut into manageable pieces, then removed using pneumatic breaker. Add the cost of equipment rental.						
(55 SF per CY)	BL@.060	SF	—	2.24	2.24	3.81

	Craft@Hrs	Unit	Material	Labor	Total	Sell
Porch and deck demolition. Includes breaking materials into manageable pieces with hand tools and handling debris to a trash bin on site.						
Demolish an enclosed wood-frame porch. Includes breaking out the concrete or masonry pier foundation. Per square foot of floor.						
One story	BL@.250	SF	—	9.35	9.35	15.90
Two story	BL@.225	SF	—	8.42	8.42	14.30
Three story	BL@.196	SF	—	7.33	7.33	12.50
Demolish a screened porch built on a concrete slab. Includes demolition of one concrete or wood frame step to grade. Per square foot of floor area.						
Porch and one step (no slab demolition)	BL@.100	SF	—	3.74	3.74	6.36
Demolish a wood deck with railing or kneewall. Includes demolition of the wood deck and up to 7 steps to grade.						
Deck to 150 SF	BL@18.5	Ea	—	692.00	692.00	1,180.00
Add per SF for deck over 150 SF	BL@.100	SF	—	3.74	3.74	6.36
Concrete slab demolition. Break up and remove concrete slab using a compressor and pneumatic hammer. Includes loosening concrete with a pick and handling debris to a trash bin on site. Costs for demolition of reinforced concrete slab include burning off rebars with an acetylene torch. Add the rental cost of a compressor, pneumatic hammer and a torch, as required. Figures in parentheses show the volume before and after demolition.						
4" non-reinforced concrete (60 SF per CY)	BL@.057	SF	—	2.13	2.13	3.62
4" reinforced concrete (60 SF per CY)	BL@.071	SF	—	2.66	2.66	4.52
6" non-reinforced concrete (45 SF per CY)	BL@.083	SF	—	3.10	3.10	5.27
6" reinforced concrete (45 SF per CY)	BL@.103	SF	—	3.85	3.85	6.55
8" non-reinforced concrete (30 SF per CY)	BL@.109	SF	—	4.08	4.08	6.94
8" reinforced concrete (30 SF per CY)	BL@.122	SF	—	4.56	4.56	7.75
Asphalt pavement demolition. Asphaltic concrete (bituminous) 3" thick, removed using a pneumatic spade. Add the cost of equipment rental and dump fees. Figures in parentheses show the volume before and after demolition and weight of debris.						
Break up and shovel on to a truck (4 SY per CY and 660 lbs. per SY)	BL@.140	SY	—	5.24	5.24	8.91
Concrete wall demolition. Steel reinforced, removed using a compressor and pneumatic breaker. Add the cost of equipment rental. Figures in parentheses show the volume before and after demolition.						
Cost per CY (1.33 CY per CY)	BL@4.76	CY	—	178.00	178.00	303.00
Cost per SF with thickness as shown						
3" wall thickness (80 SF per CY)	BL@.045	SF	—	1.68	1.68	2.86
4" wall thickness (55 SF per CY)	BL@.058	SF	—	2.17	2.17	3.69
5" wall thickness (45 SF per CY)	BL@.075	SF	—	2.81	2.81	4.78
6" wall thickness (40 SF per CY)	BL@.090	SF	—	3.37	3.37	5.73
8" wall thickness (30 SF per CY)	BL@.120	SF	—	4.49	4.49	7.63
10" wall thickness (25 SF per CY)	BL@.147	SF	—	5.50	5.50	9.35
12" wall thickness (20 SF per CY)	BL@.176	SF	—	6.58	6.58	11.20

	Craft@Hrs	Unit	Material	Labor	Total	Sell
Wood Framing Demolition. Typical costs for demolition of wood frame structural components using hand tools. Normal center-to-center spacing (12" thru 24" OC) is assumed. Includes breaking materials into manageable pieces with hand tools and handling debris to a trash bin on site. Costs include removal of Romex cable as necessary, protecting adjacent areas, and normal clean-up. Costs do not include temporary shoring to support structural elements above or adjacent to the work area. (Add for demolition of flooring, roofing, sheathing, etc.) Figures in parentheses give the approximate "loose" volume and weight of the materials after being demolished.						
Ceiling joist demolition. Per in-place SF of ceiling area removed.						
2" x 4" (720 SF per CY and 1.18 lbs. per SF)	BL@.009	SF	—	.34	.34	.58
2" x 6" (410 SF per CY and 1.76 lbs. per SF)	BL@.013	SF	—	.49	.49	.83
2" x 8" (290 SF per CY and 2.34 lbs. per SF)	BL@.018	SF	—	.67	.67	1.14
2" x 10" (220 SF per CY and 2.94 lbs. per SF)	BL@.023	SF	—	.86	.86	1.46
2" x 12" (190 SF per CY and 3.52 lbs. per SF)	BL@.027	SF	—	1.01	1.01	1.72
Floor joist demolition. Per in-place SF of floor area removed.						
2" x 6" (290 SF per CY and 2.04 lbs. per SF)	BL@.016	SF	—	.60	.60	1.02
2" x 8" (190 SF per CY and 2.72 lbs. per SF)	BL@.021	SF	—	.79	.79	1.34
2" x 10" (160 SF per CY and 3.42 lbs. per SF)	BL@.026	SF	—	.97	.97	1.65
2" x 12" (120 SF per CY and 4.10 lbs. per SF)	BL@.031	SF	—	1.16	1.16	1.97
Rafter demolition. Per in-place SF of actual roof area removed.						
2" x 4" (610 SF per CY and 1.42 lbs. per SF)	BL@.011	SF	—	.41	.41	.70
2" x 6" (360 SF per CY and 2.04 lbs. per SF)	BL@.016	SF	—	.60	.60	1.02
2" x 8" (270 SF per CY and 2.68 lbs. per SF)	BL@.020	SF	—	.75	.75	1.28
2" x 10" (210 SF per CY and 3.36 lbs. per SF)	BL@.026	SF	—	.97	.97	1.65
2" x 12" (180 SF per CY and 3.94 lbs. per SF)	BL@.030	SF	—	1.12	1.12	1.90
Stud wall demolition. Interior or exterior, includes allowance for plates and blocking, per in-place SF of wall area removed, measured on one face.						
2" x 3" (430 SF per CY and 1.92 lbs. per SF)	BL@.013	SF	—	.49	.49	.83
2" x 4" (310 SF per CY and 2.58 lbs. per SF)	BL@.017	SF	—	.64	.64	1.09
2" x 6" (190 SF per CY and 3.74 lbs. per SF)	BL@.025	SF	—	.94	.94	1.60
Stud wall demolition, salvage condition. Remove wall cover (nailed hardboard or fiberboard) from partition wall and salvage the stud framing. Per linear foot of stud wall.						
2" x 4" x 8', 16" on center	BL@.156	LF	—	5.83	5.83	9.91
Roof cover demolition. Includes breaking materials into manageable pieces with hand tools and handling debris to a trash bin on site. Cost per Sq or "square". (1 square = 100 square feet.) Figures in parentheses show the approximate "loose" volume and weight of materials after being demolished.						
Built-up, 5 ply						
(2.5 Sq per CY and 250 lbs per Sq)	BL@1.50	Sq	—	56.10	56.10	95.40
Shingles, asphalt, single layer						
(2.5 Sq per CY and 240 lbs per Sq)	BL@1.33	Sq	—	49.70	49.70	84.50
Shingles, asphalt, double layer						
(1.2 Sq per CY and 480 lbs per Sq)	BL@2.00	Sq	—	74.80	74.80	127.00
Shingles, slate. Weight ranges from 600 lbs. to 1,200 lbs. per Sq						
(1 Sq per CY and 900 lbs per Sq)	BL@1.79	Sq	—	66.90	66.90	114.00

	Craft@Hrs	Unit	Material	Labor	Total	Sell
Shingles, wood (1.7 Sq per CY and 400 lbs per Sq)	BL@2.02	Sq	—	75.50	75.50	128.00
Clay or concrete tile (.70 Sq per CY)	BL@1.65	Sq	—	61.70	61.70	105.00
Remove gravel stop or flashing	BL@.070	LF	—	2.62	2.62	4.45

Interior and exterior finish demolition. Includes breaking materials into manageable pieces with hand tools and handling debris to a trash bin on site. Figures in parentheses show the approximate "loose" volume and weight of the materials after being demolished. Demolition for disposal. No salvage of materials included.

Plywood sheathing, up to 1" thick, cost per in-place SF

(200 SF per CY and 2 lbs. per SF) BL@.017 SF — .64 .64 1.09

Wood board sheathing

(250 SF per CY and 2 lbs. per SF) BL@.030 SF — 1.12 1.12 1.90

Metal siding, using hand tools

(200 SF per CY and 2 lbs. per SF) BL@.027 SF — 1.01 1.01 1.72

Stucco on walls or soffits, cost per in-place SF, removed using hand tools

(150 SF per CY and 8 lbs. per SF) BL@.036 SF — 1.35 1.35 2.30

Wallboard 1/2" thick, cost per in-place SF, removed using hand tools. Add 50% to labor costs for 1" wallboard.

Gypsum, walls or ceilings

(250 SF per CY and 2.3 lbs. per SF) BL@.010 SF — .37 .37 .63

Including strip furring

BL@.015 SF — .56 .56 .95

Plywood or insulation board

(200 SF per CY and 2 lbs. per SF) BL@.018 SF — .67 .67 1.14

Insulation, fiberglass batts or rolls, cost per square foot removed

(500 SF per CY and .3 lb per SF) BL@.003 SF — .11 .11 .19

Plaster on walls, cost per square foot removed by hand

(150 SF per CY and 8 lbs. per SF) BL@.015 SF — .56 .56 .95

Remove baseboard molding

Single member base, no salvage BL@.022 LF — .82 .82 1.39

Base and base shoe, no salvage BL@.038 LF — 1.42 1.42 2.41

Remove and salvage single member base BL@.025 LF — .94 .94 1.60

Remove and salvage base and base shoe BL@.044 LF — 1.65 1.65 2.81

Ceiling demolition. Knock down with hand tools at heights to 9' and handle debris to a trash bin on site. Building structure to remain. No allowance for salvage value. Costs shown are per square foot of ceiling. Figures in parentheses show the approximate "loose" volume after demolition.

Plaster ceiling (typically 175 to 200 SF per CY)

Including lath and furring BL@.025 SF — .94 .94 1.60

Including suspended grid BL@.020 SF — .75 .75 1.28

Acoustic tile ceiling (typically 200 to 250 SF per CY)

Including suspended grid BL@.010 SF — .37 .37 .63

Including grid in salvage condition BL@.019 SF — .71 .71 1.21

Tile glued or stapled to ceiling BL@.015 SF — .56 .56 .95

Tile on strip furring, including furring BL@.025 SF — .94 .94 1.60

Drywall ceiling (typically 250 to 300 SF per CY)

Nailed or attached with screws

to joists BL@.010 SF — .37 .37 .63

Floor cover demolition. Includes breaking materials into manageable pieces with hand tools and handling debris to a trash bin on site. Cost per square yard of floor removed. (1 square yard = 9 square feet.) Figures in parentheses show the approximate "loose" volume and weight of the materials after demolition.

Ceramic tile (25 SY per CY and 34 lbs. per SY)	BL@.263	SY	—	9.84	9.84	16.70
Hardwood, nailed (25 SY per CY and 18 lbs. per SY)	BL@.290	SY	—	10.80	10.80	18.40
Hardwood, glued (25 SY per CY and 18 lbs. per SY)	BL@.503	SY	—	18.80	18.80	32.00
Linoleum, sheet (30 SY per CY and 3 lbs. per SY)	BL@.056	SY	—	2.09	2.09	3.55
Resilient tile (30 SY per CY and 3 lbs. per SY)	BL@.300	SY	—	11.20	11.20	19.00
Terrazzo (25 SY per CY and 34 lbs. per SY)	BL@.286	SY	—	10.70	10.70	18.20
Carpet on tack strip (40 SY per CY and 5 lbs. per SY)	BL@.028	SY	—	1.05	1.05	1.79
Glue-down carpet with rubber backing (35 SY per CY and 1.7 lbs. per SY)	BL@.160	SY	—	5.98	5.98	10.20
Add for each LF of room perimeter	BL@.008	LF	—	.30	.30	.51
Carpet pad (35 SY per CY and 1.7 lbs. per SY)	BL@.014	SY	—	.52	.52	.88

Removal of interior items. Includes breaking materials into manageable pieces with hand tools and handling debris to a trash bin on site. Items removed in salvageable condition do not include an allowance for salvage value. Figures in parentheses give the approximate "loose" volume of the materials after demolition. Removed in non-salvageable condition (demolished) except as noted.

Windows, typical cost to remove window, frame and hardware, cost per SF of window						
Metal (36 SF per CY)	BL@.058	SF	—	2.17	2.17	3.69
Wood (36 SF per CY)	BL@.063	SF	—	2.36	2.36	4.01
Wood stairs, cost per in-place SF or LF						
Risers (25 SF per CY)	BL@.116	SF	—	4.34	4.34	7.38
Landings (50 SF per CY)	BL@.021	SF	—	.79	.79	1.34
Handrails (100 LF per CY)	BL@.044	LF	—	1.65	1.65	2.81
Posts (200 LF per CY)	BL@.075	LF	—	2.81	2.81	4.78
Hollow metal door and frame in a masonry wall. (2 doors per CY)						
Single door to 4' x 7'	BL@1.00	Ea	—	37.40	37.40	63.60
Two doors, per opening to 8' x 7'	BL@1.50	Ea	—	56.10	56.10	95.40
Wood door and frame in a wood frame wall (2 doors per CY)						
Single door to 4' x 7'	BL@.500	Ea	—	18.70	18.70	31.80
Two doors, per opening to 8' x 7'	BL@.750	Ea	—	28.10	28.10	47.80
Metal door and frame in masonry wall, salvage condition						
Hollow metal door to 4' x 7'	BL@2.00	Ea	—	74.80	74.80	127.00
Wood door to 4' x 7'	BL@1.00	Ea	—	37.40	37.40	63.60

Index

- A**
- Abbreviations..... 17
 - ABS pipe 388
 - DWV 388
 - Absorber, shock
 - water surge 387
 - ABTCO 251
 - AC cable 399
 - AC quiet rocker switch
 - Decora..... 414
 - AC quiet toggle switch..... 414
 - Access door..... 248
 - Access doors
 - foundation..... 88
 - Accessories, ridge vents ... 90
 - Acid cleaning
 - masonry..... 115
 - wash..... 51, 115
 - Acid wash, manhours..... 446
 - Acknowledgments 2
 - Acoustic ceiling texture
 - labor 449
 - Acoustic roll-on..... 473
 - Acoustic tile
 - demolition..... 35, 311
 - Acoustical ceiling
 - demolition..... 254
 - panel..... 255-257
 - patch..... 245
 - suspended..... 256
 - texture touch-up kit..... 244
 - tile adhesive 254
 - Acrylic
 - latex paint..... 472
 - mirrored sheet..... 171
 - mortar admix 303
 - paint, concrete..... 41
 - roof coating 137
 - sheet..... 171
 - skylights..... 173
 - stain..... 467
 - suspended lighting
 - panel 258
 - tape 287
 - wood filler 277
 - Actuating devices,
 - garage doors 225
 - Adapter, box 401
 - Additive
 - feather edge 282
 - resilient flooring 281
 - Additives
 - coloring..... 48
 - concrete..... 48
 - perlite paint texturing... 473
 - Adhesive
 - acoustical ceiling tile ... 254
 - bond 133
 - cold process 133
 - cove base 286
 - field..... 134
 - flooring..... 278
 - marble & granite..... 302
 - modified bitumen..... 133
 - nozzle 287
 - primer 278
 - resilient tile 286
 - sheet flooring..... 286
 - spray..... 249
 - tile..... 289-290
 - vinyl tile 286
 - white silicone..... 171
 - wood flooring..... 278
 - Adhesive caulk
 - ceramic tile 303
 - Adhesive remover 278
 - flooring..... 281
 - Admix, acrylic mortar..... 303
 - Admixtures
 - coloring..... 48
 - concrete..... 48
 - Aggregate
 - base..... 41, 47
 - roofing 132
 - Aggregate sealer..... 475
 - Air compressor, rental 29
 - Air conditioner 377
 - Air gap 327
 - cover..... 327
 - Air hose, rental 29
 - Air mover 519
 - Air scrubber 519
 - Alkyd gloss enamel 473
 - All-season storm
 - doors..... 204-205
 - All-season storm doors,
 - triple-track..... 204
 - Alpine ceiling panel 257
 - Aluminum
 - door bottom 196
 - drip edge 141
 - fascia 114
 - foil..... 88
 - patio cover..... 439
 - patio doors 215
 - roll flashing 141
 - roof coating 137
 - screen rolls..... 168
 - siding 113
 - siding removal..... 106
 - siding repair..... 105
 - soffit..... 114
 - storm windows 165
 - thermal door sill..... 195
 - windows, fixed 162
 - Aluminum conduit
 - threaded..... 411
 - Aluminum siding 93
 - painting..... 462
 - Aluminum wiring 391
 - Amber shellac..... 470
 - American Flexible
 - Conduit..... 399
 - American Marazzi..... 292-294, 299
 - American Molding..... 262
 - American Shower &
 - Bath 330
 - American Standard..... 323,
 - ... 326-327, 331, 354-356, 369
 - Anchor clip..... 438
 - Anchor, foundation 492
 - Anchor, hold-down 492
 - Andersen 214, 216
 - Angle
 - flashing..... 142
 - Angle bay windows..... 164
 - Angle valve 351
 - Ann Arbor birch paneling ... 252
 - Anti-fracture
 - membrane kit 303
 - membrane
 - waterproofing 301
 - tile membrane 301
 - Antimicrobial..... 516
 - Anti-siphon toilet fill valve... 351
 - Appliance receptacle..... 415
 - Appliance removal..... 510
 - Appliances
 - connect..... 397
 - disconnect 397
 - kitchen, removal 311
 - new connection 397
 - remove & replace cable ... 397
 - Apron
 - roof 143
 - whirlpool tub 347
 - Aqua Mix 303
 - Aqua-Tough tile
 - underlayment..... 291
 - Arch, bullnose drywall 247
 - Architectural laminate
 - shingles 130
 - Architectural shingles 131
 - Area modification factors... 18
 - Area modification factors,
 - Canadian 26
 - Area walls, sheet metal ... 370
 - Ariston 387
 - Arlington Industries..... 402
 - Armstrong..... 255-257, 281-287, 289
 - Asceri Hi-Arc lavatory
 - faucet..... 357
 - Ashland sink 322
 - Asphalt
 - base 52
 - fiberglass shingles... 130-131
 - paving..... 52
 - paving, demolition ... 33, 52
 - recycling 30
 - Asphalt roofing 132
 - built-up..... 132
 - emulsion 133
 - fabric..... 131
 - saturated cotton roof
 - patch 136
 - SEBS..... 135
 - Asphalt shingles
 - fiberglass..... 131
 - repair 130
 - Astragal, T 194
 - Attachments
 - skid steer equipment..... 40
 - Attic conversions 57
 - Attic fans
 - belt drive..... 91
 - Attic ventilation 83
 - Attic vents..... 91
 - Avenite counters..... 318
 - Awning
 - remove and replace 106
 - Awning windows
 - aluminum..... 162
 - operators 166
 - vinyl-clad wood..... 160

B

 - Bacharach kitchen
 - faucet..... 324
 - Backer, tile..... 245
 - Backer tape, tile..... 249
 - Backerboard
 - ceramic tile 291
 - RhinoBoard 291
 - tile 291
 - Wonderboard..... 291
 - Backfill
 - concrete excavation 41
 - Backhoe
 - rental 29
 - Backing
 - carpentry 73
 - Backsplash 318
 - Baffle
 - sound..... 333
 - Baffle light kit..... 420
 - Balance, sash..... 166
 - Ballista range hood..... 336
 - Baluster 435
 - deck rail 436
 - Balustrade
 - deck..... 436
 - Bamboo
 - flooring trim 276
 - hardwood flooring..... 276
 - plank flooring..... 276
 - Banner..... 322
 - Bar doors..... 209
 - Bar faucet..... 331
 - single handle 331
 - two-handle..... 331-332
 - Bar kit
 - QO load center ground 420
 - Bar light fixture 421
 - Bar sink
 - composite 331
 - Manchester composite ... 331
 - polycast 331
 - single bowl 330
 - stainless steel..... 331
 - Bar, towel 301, 356, 369
 - Barn & fence paint..... 476
 - Barrier, foil..... 88
 - Base
 - adhesive 286
 - asphalt..... 52
 - ceramic tile 291
 - lavatory..... 352
 - rubber wall..... 288
 - self-stick wall 289
 - slab..... 50
 - vinyl wall..... 288, 289
 - Base cabinets..... 314
 - end panel 313
 - finished 316-317
 - oak..... 316
 - unfinished birch 313
 - unfinished oak 314
 - Base cap molding
 - primed finger joint..... 260
 - Base corner molding
 - MDF primed 261
 - Base molding..... 263
 - colonial 263
 - MDF colonial 261
 - paperwrap colonial 263
 - polystyrene colonial..... 263
 - primed finger joint..... 260
 - Victorian hardwood 259
 - Base plate cover, toilet.... 351
 - Base sheet
 - fiberglass..... 133
 - Base shoe molding
 - primed finger joint..... 260
 - Base, wall
 - thermoplastic 288
 - Baseboard
 - demolition..... 35
 - painting labor..... 448

Baseboard heater, electric..... 384	enameled steel..... 346	Blank cover	non-metallic round conduit..... 408
Baseboard molding MDF..... 261	Freestanding..... 346	2 gang..... 408	rectangular
Basement	removal..... 346	handy box..... 404	weatherproof..... 407
doors..... 226	Walk-in..... 347	weatherproof..... 408	Super Blue non-metallic three gang..... 402
Basement HVAC restoration..... 92	wall surround kit..... 347	Blasting	Super Blue non-metallic two gang..... 402
Basement post removal..... 63	Bathtub & shower units... 348	dry ice..... 517	welded square..... 405
Basement storm windows..... 165	Bathtub door	Bleach kit	Box adapter..... 401
Basin strainer	bypass..... 347	wood..... 467	Box cover..... 406
remove & replace..... 346	Bathtub filler..... 347	Blinds	blank handy..... 404
Basket strainer	Bathtub framing..... 375	painting..... 461-462	finished..... 405
garbage disposal..... 328	Bathtub wall..... 347	Block Furniture..... 509	square surface..... 405
junior..... 331	Bathtub, wall kit	Block masonry	Box for ceiling fan..... 405
kitchen sink..... 328-329	three-piece..... 347	painting..... 456	pancake..... 405
Basket strainer washer	Batt insulation..... 84	Block molding	Box room contents..... 509
kitchen sink..... 329	Batten tileboard..... 251	corner..... 262	Boxes
Basswood molding..... 259	Bay vent channel	rosette..... 259	cardboard..... 518
Bath accessories..... 369	rafter..... 88	Blocking	Brace plate
ceramic tile..... 290	Bay window roof..... 164	fire..... 66	installation..... 92
Bath accessory set	Bay windows..... 158, 164	fireblocks..... 68	Braces
porcelain..... 301	Bead	Blow-in cellulose	wall..... 493
Bath cabinet	bullnose corner..... 247	insulation..... 85	Bracing
framed..... 366	corner..... 248	Blue Board insulation..... 85	carpentry..... 67
stainless steel..... 366	drywall..... 248	Blueboard..... 245	cripple wall..... 492
storage..... 367	drywall corner..... 247	Board	temporary..... 67
swing door..... 367	glazing..... 170	blue..... 245	Bracket
top lighted..... 367	inside corner..... 247	forming..... 45	foundation..... 492
Bath ceiling blower..... 362	L-trim..... 248	sheathing..... 66	non-metallic low voltage mounting..... 402
Bath fan..... 362-364	metal J-trim..... 248	Board insulation..... 80, 85	Bracket, hanger
ceiling..... 365	outside corner..... 247	fire resistance..... 80	lavatory..... 353
ceiling & wall..... 362	plastic..... 248	polystyrene..... 80	Brass
ceiling or wall..... 363	tape on..... 247	polyurethane..... 80	storm doors..... 205
chain-operated..... 364	Bead molding..... 263	Board siding	Brass Craft..... 327, 350-351
Designer Series..... 365	primed finger joint..... 260	cedar..... 108	Breaker
exhaust..... 364	Bead, corner	pine..... 108	arc fault, HomeLine..... 417
exhaust with heater..... 365	spray adhesive..... 249	repair..... 105	GFCI..... 417
exhaust with light..... 364	Beaded Cape Cod plank... 252	Board, cement..... 245	ground fault interrupter
Heat-A-Lamp..... 365	Beaded paneling..... 251	Bobcats..... 40	plug-on circuit..... 420
QuieTTTest..... 364	Beams	Boiler	HomeLine..... 417
solitaire..... 365	ceiling..... 68	hydronic heating	main circuit..... 418
timer switch..... 366	collar..... 75	system..... 378	QO miniature circuit..... 419
Ultra Silent..... 363	grade..... 49	Boiler breeching..... 381-383	tandem circuit..... 419
vertical discharge..... 363	needle..... 62	Bolt	Breaker box
with heater, infrared..... 365	Bed molding..... 263	bolt kit..... 320	ground bar kit..... 420
with light..... 364-365	Bedding mortar	foundation..... 492	Breaker, paving
Bath heater	CustomFloat..... 302	toilet tank..... 352	rental..... 29
exhaust fan..... 365	Behr..... 467, 470, 472-475	Bolt-on A type	Brick
Heat-A-Lamp..... 365	Bell wire..... 413	universal hub..... 418	cleaning..... 115
infrared bulb..... 365	Berm..... 510	Bolts	demolition..... 31
Bath light bar..... 421	Bestview Ltd..... 294	double-hung window... 166	painting..... 457-458
Bath vent kit..... 366	Bevel siding	Bond adhesive	pointing..... 115
Bathrobe hook..... 369	cedar..... 108	permanent..... 133	repainting..... 115
Bathroom accessories	pine..... 108	Bonding mortar..... 301-302	Brick masonry
ceramic tile soap dish... 300	western red cedar..... 108	flexible..... 302	painting labor..... 456
towel bar, ceramic..... 301	Beveled mirror bath bar... 421	Bonding primer	Brick molding..... 195
Bathroom sink..... 353	Bidet	concrete..... 473	Brick molding set
drop-in..... 353	hot & cold..... 350	Bookcase	primed finger joint..... 260
Bathroom vanity	Bidet faucet set..... 350	painting labor..... 448	Brick paver tile..... 296
top..... 360	Bi-fold doors..... 219-221	Boone International..... 289	Bridging
Bathrooms	hardware..... 221	Bosch..... 387	carpentry..... 65
additions..... 339	Metal..... 220	Boston polish..... 471	Broan Manufacturing.....
conversions..... 340	mirrored..... 221	Bottle jacks..... 62	 337, 362-366
exterior additions..... 342	Bilco..... 226	Bow window roof..... 164-165	Brookfield cast iron kitchen sink..... 323
floor plans..... 343	Bin, trash..... 30	Bowl sink	Brookstone birch
in basements..... 341	Biocidal coating..... 92	utility..... 330	paneling..... 252
in garages..... 342	Birch doors..... 192, 206-207, 210	Bowling alley wax..... 471	Broom finish, concrete..... 50
in basements..... 341	Birch paneling..... 252	Box	Brown coat plaster..... 114
in garages..... 342	Birdstop..... 140	2 gang weatherproof	Bruce..... 274, 278
in basements..... 341	Bitumen adhesive, modified..... 133	electrical..... 407	
in garages..... 342	Bitumen cold process	drawn 2-device switch... 405	
naming conventions..... 339	adhesive, modified..... 133	drawn handy..... 404	
space minimums..... 344	Bituminous	drawn octagon..... 405	
Bathtub	roofing..... 132	multi gang switch..... 405	
alcove steel..... 346		non-metallic old work	
Drop-in..... 347		switch..... 402	

Brush		C	Cap, post.....436-437	Caulk	
painting labor.....448		Cabinet	Cape Cod plank.....252	ceramic tile.....303	
wire.....51		demolition, wet.....514	Carbon monoxide alarm,	ceramic tile adhesive....303	
Brush chipper		Cabinet door.....312	battery powered.....416	removal.....157	
rental.....29		Cabinet drawer front.....312	Carborundum rub.....51	roof.....136	
Brushes		Cabinet hinge	Cardboard boxes.....518	window exterior.....157	
crow's foot.....250		overlay.....320	Carflex liquid-tight	Caulking	
drywall texture.....250		self-closing.....321	conduit fitting.....407	manhours.....446	
Bubble wrap.....518		semi-concealed.....321	flexible conduit.....407	Cedar	
Buggies		Cabinet knobs.....320	Carlson.....400-402, 407-408	panels, sidewall shingle...113	
rental.....40		Cabinet trim.....316	Carol Cable.....413	roofing.....137	
Building dryout, interior work		Cabinets	Carpentry	shingles.....138	
appliances.....496		base.....313-314, 316-317	backing and nailers.....73	siding.....108-109	
basement.....497		bath.....366-367	beams and girders.....62	Cedar louvered vents.....90	
ceiling.....496		bathroom vanity.....358-359	bridging or blocking.....65	Cedarmill.....112	
flooring.....496		corner.....367	ceiling beams.....68	Ceiling	
furniture.....496		door trim.....312	ceiling joists.....73	beams.....68	
heavy items.....497		end panel.....312-314	door openings.....69	demolition.....242	
lamps.....496		filler strip.....314-315	dormer studs.....76	demolition, wet.....513	
mud and debris.....497		finished.....316	fascia board.....76	joists.....73	
outlets.....496		frameless.....367	fireblocks.....68	painting.....450	
securing valuables.....496		kitchen,	floor joists.....64-65	painting manhours...449-450	
vents and registers.....497		unfinished birch.....313	floor repairs.....62	repair.....244	
wall switches.....496		medicine.....366-368	furring.....72	staining manhours.....450	
walls.....496		oak.....316-317	plates.....67	texture manhours.....449	
Building paper.....87, 134		painting labor.....449	posts.....63	tile adhesive.....254	
Building wire		pantry.....315-317	rafters.....75	touch-up kit.....244	
type THHN.....412		removal.....311	roof sheathing.....77	Ceiling and wall panel	
Built-up girders		trim.....316	roof trusses.....76	FRP.....253	
carpentry.....62		trim, finished.....318	room additions.....64	Ceiling fan	
Built-up roofing.....132, 134		utility.....313-317	sheathing.....70	bath.....362	
Cold-Ap cement.....133		utility.....317	sill plates.....64	bath heater & fan.....365	
demolition.....34		vanity.....362	studs.....66	gazebo.....424	
insulation.....131-132		wall.....313-317	subflooring.....66	QuietTest.....364	
patch.....131		Cable	wall assemblies.....70	San Marino.....424	
tear-off.....129		AC.....399	wall framing.....66	Ceiling fan box.....405	
torch and mop system...134		appliance connection...397	window openings.....69	non-metallic.....402	
Bulb heater & fan		appliance re-connect...397	Carpet.....304	pancake.....405	
Heat-A-Lamp.....365		appliance, remove &	cleaning.....512	Ceiling fixture.....420	
Bulkhead light fixture		replace.....397	demolition.....36	drum.....421	
outdoor.....423		BX.....399	removal.....274, 511	fluorescent.....421	
Bull float		coaxial.....413	roller, extendable.....287	flush mount.....421	
rental.....40		data communication....413	transition strip.....288	glass globe.....422	
Bullnose		fish through stud wall...397	water extraction.....511	incandescent flush	
ceramic tile.....297		flexible armored BX.....399	Cartridge	mount.....422	
corner bead.....247		thermostat.....413	disposal.....333	mushroom flush mount...422	
corner tile.....298		Type NM-B Romex	Casement windows.....164	remove & replace.....421	
drywall arch.....247		sheathed.....397-398	lock handle.....166	Sunburst flush mount...422	
outside corner.....247		Type UF-B sheathed....399	operator handle.....166	swirl dome light.....422	
plastic corner.....247		underground.....399	vinyl-clad wood.....160	Ceiling insulation	
Bulls Eye shellac.....470		Cable coupling	Casing.....263	batt and roll blanket.....79	
Bumper		EMT to non-metallic	aluminum siding.....114	Kraft-faced.....79	
garage door.....225		sheathed.....404	colonial.....260	loose-fill.....79	
Buried cable.....399		Cable snake flat wire	colonial door.....195	R-value.....79	
Burn off paint labor.....446		fish tape.....397	door.....191, 206	Ceiling latex paint.....472	
Bush removal.....30		Cadet Series bar faucet...331	paperwrap colonial.....263	Ceiling lighting panel	
Bushing		Cafe doors.....209	polystyrene.....264	acrylic.....258	
insulated metallic		Calcium chloride.....48	ranch.....260, 263	styrene.....258	
grounding.....410		Cambray vinyl sheet	Casing, MDF.....261	Ceiling panel.....256	
non-metallic reducer....400		flooring.....283	Caspian sheet vinyl	acoustical.....256	
rigid or IMC reducing....410		Cambria countertop.....319	flooring.....282	classic fine-textured....256	
thermoplastic insulating...410		Can	Cast iron	fiberglass.....256	
Butcher's.....471		ceiling light.....420	pipe, remove & replace...388	Firecode Fifth Avenue..257	
BX cable		Canopy	radiator, remove &	fissured.....257	
flexible armored.....399		remove and replace.....106	replace.....378	fissured fire guard.....256	
Bypass door		Cant strips.....137	water closet flange.....351	Grenoble.....256	
accessories.....219		roofing.....86	Cast iron kitchen sink...322-323	gypsum lay-in.....257	
bathtub.....347		Cap.....146	Cast molding.....262	mineral fiber.....257	
beveled mirror.....218		ceramic surface.....298	chair rail.....262	plain white.....256	
closet.....218		chimney.....146	Cast-in-place concrete....48	Prestige.....256	
hardware.....222		PVC service entrance...402	Cat doors.....216	random textured.....255	
mirrored.....218-219		service entrance.....412	Catalina Lighting.....423	Sahara.....256	
		Cap sheet		suspended.....255-257	
		roofing.....133		textured.....257	

Ceiling repair	245	toilet tissue holder	300	main.....	418	Cobra Rigid ridge vent	145
Ceiling texture	246	tool.....	287	main, all-in-one.....	418	Cofair Products.....	135
patch.....	245	toothbrush & tumbler		QO miniature.....	419	Coffer dam.....	92
popcorn patch	245	holder	301	tandem	419	Coil, kickplate	439
spray.....	244-245	wall	297, 299	Circular windows		Cold process adhesive	
touch-up kit.....	244	window sill.....	297	half circle, vinyl.....	159	modified bitumen.....	133
Ceiling tile.....	254	Ceramic tile definitions ...	272	Civic Square	286	Cold process cement.....	133
acoustical	253	Ceramic tile flooring.....	272	Clamp		Collar beams	
tin design.....	254	Ceramic tile flooring,		ground rod.....	412	carpentry	75
wood fiber.....	254	tips on.....	273	Snap Strap PVC		Collar ties	75
Ceiling tile grid system		Chain link fence		conduit.....	400	Colonial base molding	263
zero-clearance tile grid ...	255	demolition	30	wood floor.....	277	MDF.....	261
Ceiling tile, wet	513	Chain saw		Clamp connector		paperwrap	263
Ceiling wire hanging kit ...	255	rental	29	two-piece.....	399	polystyrene	263
Ceiling, suspended		Chain-operated wall		Classic faucet handle	354	Colonial casing	
cross tee.....	255	exhaust fan.....	364	Clay roofing tile.....	139	finger jointed.....	260
installation	254	Chair rail		Cleaning		paperwrap	263
main beam	255	cast polyurethane.....	262	after water extraction....	514	Colonial door casing.....	195
wall molding	255	MDF.....	261	antimicrobial	516	Colonial storm doors,	
CeilingMAX.....	255	paperwrap	264	brick.....	115	triple-track	205
Ceilings, suspended.....	237	polymer.....	263	carpet	512	Colonnade kitchen	
Cellar doors, steel	194	prefinished.....	264	HVAC.....	510	faucet.....	325
Cement		primed finger joint.....	260	masonry.....	115	Colorant	
board	245	Chalk line, self chalking...	287	pressure wash.....	448	grout.....	303
coloring.....	48	Chandelier	422	stone.....	115	Coloring agents	
joint compound.....	245	Channel		terra cotta.....	115	concrete.....	48, 50
mixer, rental	40	vent, rafter bay	88	Ultrasonic	510	Column, porch	435
siding.....	113	Chesapeake floor tile.....	285	Clear cedar siding.....	108	Combination coupling.....	404
soffit, fiber.....	112	Chime kit, door	416	Clear wood		Combination service	
tile.....	139	Chimney	379-383	preservative.....	471	entrance device.....	418
underlayment.....	281	A vent.....	382-383	protector.....	470	Combination service	
white.....	114	all fuels.....	382-383	Clearshield.....	468	entrance load center	417
Cement, roofing		aluminum.....	379-380	Clip, anchor	438	Commercial Electric	420
cold process	133	B vent	381	Clips & screws.....	322	Communication cable	
flashing	135	base tee	380-382	Clips, drywall repair.....	249	category 5E	413
Kool Patch.....	135	C vent.....	379-380	Closers		Composite kitchen sink ...	331
lap roof	133	cap.....	146	door	217	60/40 bowl.....	324
rubber wet patch	135	double wall	381-382	Closet		bar	331
Wet Stick.....	135	double wall		painting labor.....	450	Beaumont.....	324
Center		insulated.....	382-383	Closet doors	210	double bowl	323
HomeLine indoor main		elbow.....	380-383	bi-fold.....	219-220	Forsyth	323
lug load	417	flue.....	379-383	bypass.....	218	Greenwich	323
Central air conditioning....	377	flue rain cap.....	379	mirrored bypass ...	218-219	single bowl	323
Central air filtration retrofit,		gas or propane.....	379-382	Closet pole molding.....	263	Composition tile	
HEPA.....	378	L vent.....	381-382	Closure strips, horizontal...	141	vinyl	285-286
Central humidifier	377	liner.....	379	CMU		Compound	
Ceramic		liner (flue)		painting.....	457	glazing.....	170
floor & wall.....	293	aluminum.....	379	CO/ALR duplex		latex glazing	170
Ceramic tile		liner rain cap.....	379	receptacle.....	415	Compression conduit	
accessories	300	masonry,		Coal furnace.....	384	coupling, rigid or IMC	410
accessory set	301	repair.....	104	Coated glass fabric.....	136	Compression connector	
adhesive.....	289	rain cap	380-383	yellow resin	136	EMT.....	403
adhesive caulk	303	repairing earthquake		Coating		EMT-to-box offset.....	404
backer.....	291	damage	490	elastomeric roof.....	137	non-metallic UF	399
backerboard	291	roof flashing.....	380-383	fibered roof	137	Compression faucet	
bullnose	297	single wall.....	379-380	floor, epoxy.....	475	repair	346
bullnose corner.....	298	stack.....	381-382	foundation and roof	129	Compression inlet	
caulk	303	storm collar.....	380-383	roof	137	dishwasher connector...	334
demolition	36, 311	supports & brackets	383	roof and foundation	129	Compressor	
floor	291-294	termination		weather-resistant.....	468	rental	29
floor warming system ...	301	assembly.....	380-383	wood	468	Concrete	
glazed.....	299	Chlorinated rubber paint...	476	Coating kit		additives	48
installation	289	C-hook		seam.....	287	architectural.....	48
mosaic accent	300	garage door.....	225	Coatings		bonding primer	473
mosaic octagon.....	300	Chop saw		concrete.....	475	coatings	475
Natura.....	292	rental	29	corrosion.....	92	coloring.....	48
removal.....	274	Chrome light fixture	421	epoxy gloss	476	curb	45
Saltillo.....	295	Circuit breaker		epoxy primer	476	delivery charges	47
sink rail.....	298	arc fault, HomeLine	417	specialty	476	driveways	47
soap dish.....	300	GFCI.....	417	Coaxial cable	413	embossed finish	51
surface cap.....	298	ground fault interrupter		wall plate	413	enamel.....	475
surface cap corner	298	plug-on	420	Coaxial F-connector		epoxy floor coating	475
threshold.....	297	HomeLine	417	for RG6.....	413	expansion joints	47

exposed aggregate	50	removal, rigid.....	409	Copper pipe		Cove and corner molding	
finishing	51	Schedule 40 PVC.....	400	DWV	388	inside.....	264
flatwork	41	Schedule 80 PVC.....	400	water.....	388	paperwrap	264
floor painting labor... 454-455		Conduit body	401	Copper step flashing	142	Cove base	
footings, demolition	32	PVC Type T.....	401	Copper wire		adhesive.....	286
form stripping	44	threaded aluminum	411	Type THHN	412-413	adhesive nozzle	287
forms	43-49	Conduit box		Copper wood preservative... 471		Cover	
foundations.....	49	adapter	401	Cord		faucet hole.....	328
grade beams	49	cover, steel.....	404, 406	disposal accessory kit... 333		patio, aluminum.....	439
granite aggregate.....	47	installation	404	Corian countertops	318	Covers	
grinding.....	493	non-metallic round.....	408	Cork		2 gang blank.....	408
grout mix	47	steel.....	405	roll.....	289	blank handy box.....	404
grouting	51	three-gang non-metallic... 402		tile flooring	271	dual weatherproof	
high early strength.....	48	two-gang non-metallic... 402		tile, natural.....	289	lampholder.....	408
joints	47	Conduit bushing		Corner		GFCL wet location	
keyway	49	rigid.....	410	MDF primed base.....	261	receptacle.....	408
lightweight	47	Conduit clamp		plastic bullnose.....	247	horizontal duplex	
mix	47	Snap Strap PVC.....	400	Corner and cove molding		weatherproof	
patching.....	51	Conduit connector		inside.....	264	receptacle	408
planing.....	493	90-degree.....	406	paperwrap	264	receptacle.....	408
plasticized.....	48	flex	407	Corner bead		steel conduit box... 404, 406	
protective coating.....	475	Conduit coupling		bullnose.....	247	switch	408
pump mix.....	47	rigid.....	409-410	drywall	247	weatherproof blank.....	408
pumping.....	40	Conduit elbow		flex.....	248	Crack filler,	
ready-mix.....	47	45-degree rigid steel 409		inside.....	247	siliconizer.....	136
recycling	30	rigid or IMC steel.....	409	outside.....	248	Crack repair.....	493
reinforcing steel.....	45	Conduit fitting		spray adhesive	249	mesh.....	248
repair	493	Carflex.....	407	Corner block		Craft codes	15
retaining walls	48	non-metallic.....	401	polyurethane.....	262	Crawlspace ventilation	
sawing	51	Conduit hub		Corner cabinet,		free circulation area..... 82	
sealer.....	475	watertight.....	410	frameless.....	367	Cribbing	62
shingles	140	Conduit installation		Corner molding		Cripple wall	492
sidewalk.....	50	confined area	409	inside.....	264	Cross bridging	65
slab demolition	33	Conduit locknut.....	410	paperwrap outside.....	264	Cross head cast molding ... 262	
slabs	50	Conduit nipple	411	polystyrene outside	264	Crow's foot brush	250
specialty finishes	51	Conduit sill plate		Corner shelf, ceramic	300	Crown molding	259, 263
stain.....	475	service entrance.....	412	Corner tape,		cabinet.....	316, 318
stamped finish.....	51	Conduit strap.....	411	flexible metal	249	MDF ultralite	262
tile.....	139	Connector		Corner trowel.....	250	primed finger joint.....	261
tile roofing.....	140	90-degree flexible.....	406	Cornices,		Crystalite countertop	319
topping.....	51	dishwasher	333-334	painting.....	460	Curb mount fixed	
walks	50	EMT compression	403	Corrosion coatings	92	skylights.....	173
wall demolition.....	33	EMT offset screw	403	Corrugated		Curbs,	
wall form.....	44	EMT set screw	403	fiberglass.....	140	concrete.....	45
walls	48	EMT-to-box offset		metal roofing	138	Cure-Seal concrete	
waterproof	475	compression.....	404	metal siding	113	sealer.....	475
waterproofing sealer..... 475		flex screw-in	406	CorStone	323-324	Curing and sealing	
Concrete & masonry		flex squeeze	407	Cost plus markup equals		compound.....	50
waterproof	475	non-metallic UF		selling price	7	Curved glass wall	
Concrete block		compression	399	Cotton insulation.....	87	lantern	423
demolition.....	32	two-piece clamp	399	Cotton roof patch		Custom Building	
painting	456-458	Containment		asphalt saturated.....	136	Products	301-303
Concrete conveyor		dust.....	516	Counterflashing	144	CustomBlend Thin-Set	
rental	40	mold.....	516	Countertops.....	318	Mortar	302
Concrete deck		Contents	3	Corian	318	CustomFloat bedding	
patch built-up roofing... 131		Continuous vents.....	89	granite	319	mortar.....	302
Concrete pier replacement... 63		Contractors, state license		laminated plastic ... 319-320		Cutter	
Concrete saws		dryout	495	marble vanity.....	360	glass	171
rental	40	mold remediation.....	495	miter bolt kit.....	320	vinyl tile	287
Conditioner		Control switch		plastic laminate	319	Cutting	
wood.....	471	fan	366	setting with adhesive.... 290		slabs.....	51
Conduit		Convection heating,		setting with mortar	290		
Carflex liquid-tight	407	baseboard	378	solid surface	318		
EMT	402, 406	Cooktop		stone, engineered	319		
EMT, removal.....	402	electric.....	335	tile.....	291		
ENT	407	electric ceramic glass... 335		Coupling			
flex appliance		gas.....	335	combination	404		
connection.....	397	Cooling system, patio	438	EMT to non-metallic			
flexible aluminum	406	Copper		sheathed cable.....	404		
flexible steel	406	formed flashing.....	142	non-metallic standard... 401			
galvanized IMC	409	roll flashing.....	141	rigid conduit.....	409		
GRS.....	409	window roofs	164	rigid or IMC compression			
IMC.....	409			conduit.....	410		
installation, rigid	409						

D

Dado partition	
demolition.....	312
Dal-Tile	293, 299-300
Danco	329
Danish Oil.....	468
DAP	170
Data communication cable	
category 5E	413

Deadbolts	202	sidewalks.....	32	Door		birch.....	192, 210
Debris removal	30, 509	skylight, poly dome.....	172	cabinet.....	312	birch, prehung	197
Deck		slab.....	31	demolition, wet	514	bypass, closet	218
demolition.....	432	stairs.....	36	framing	69	bypass, mirrored ...	218-219
lumber	433	suspended ceiling ...	254, 311	hinges, brass.....	196	cafe.....	209
lumber	432	wall	264	kick plates	213	camber top	199
lumber	434	wall cover	312	knockers	213	casing.....	195
lumber, Fiberon	434	walls	31-32	openers	225	cellar.....	194
lumber, Thompsonized...	434	wet materials	512	painting labor.....	451-453	closers.....	217
misting system	438	windows.....	36, 156	peep sights.....	214	closet.....	186, 210, 218-219
painting.....	455	wood framing.....	31	pull plates	213	closet, bypass	218
post & beam	432	DensArmor gypsum		push plates	213	demolition.....	36
post cap.....	437	board.....	243	Door accessories		Douglas fir.....	193
posts.....	433, 436	DensShield tile backer.....	245	bypass	219	entrance	194
railing.....	435-436	Dentil cast molding.....	262	Door bar	226	entry	193, 198-200
railing, turned spindle...	436	Dentil chair rail.....	262	Door bell		entry, decorative fan....	200
repair	432	Designer panel		wireless	416	entry, decorative	
roof	435	wallcovering.....	252	Door bottom		half lite.....	200
screws	439	Designer Series bath fan ...	365	aluminum & vinyl.....	196	exterior ...	192-193, 197-198
staining.....	455	Detaching membrane	304	drip cap	196	exterior fan lite.....	197
stairs.....	438	Detector		Door casing	191, 206	exterior flush.....	197
Deck & siding stain.....	467	dual-ionization smoke ...	416	colonial	195, 260	exterior prehung....	197-199
Deck Plus stain.....	467	smoke.....	416	ranch	195	exterior prehung,	
Deck, roof		Devoe Coatings.....	476	ranch, pine	195	with mini-blind	198
removal.....	129	DeWalt.....	249	Door chime builder's kit...	416	exterior, installation	191
repair	129	De-watering	509	Door closers	217	fiberglass.....	200-201
walking	140	DeWitts.....	135	hinge pin.....	217	fir	193
Deck, roofing		Difficulty factors, painting		hydraulic	217	fire	192
patching built-up....	131-132	manhours	446	installation.....	217	fire-rated	197
Decora AC quiet rocker		overhang	460	pneumatic.....	217	flush.....	219
switch	414	Diffuser fixture		Door frame		flush closet	219
Decora wall plate,		fluorescent.....	421	painting labor.....	451	flush closet, lauan	219
single gang.....	415	Diffusers		Door frames.....	194	folding, accordion	217
Deflect-O	366	duct, installation	377	fire-rated.....	194	foundation access	88
Dehumidifiers.....	518	Dimmer		pocket.....	222	French	193
Delta ...	325-326, 354, 356-357	illuminated slide.....	416	removal.....	197	French, interior.....	208
Demolition		incandescent slide.....	416	Door grille	216	garage	223-224
acoustic tile ceiling	311	Dirt, recycling.....	30	Door handles, patio	216	garage,	
acoustical ceiling... 254, 311		Disconnect		Door hangers.....	222	extension spring.....	225
asphalt paving	52	appliances.....	397	Door hardware.....	216	garage, jamb hinge	224
baseboard	35	distribution panel.....	417	track.....	222	handle sets.....	202
brick sidewalk.....	32	Dish, soap	300	Door hinge, remove.....	196	hanging slab doors.....	184
brick wall	31	Dishwasher.....	334	Door installation.....		hardboard	192, 209
building components	31	compression inlet	334		191, 206, 209	hardware	221
carpet	36	connector.....	333-334	interior	206	hardware, exit.....	226
ceiling	35, 242	removal.....	311	Door jambs		hemlock.....	197
checklist.....	27	Dispenser		exterior	194	installation	
concrete block	32	hot water	329	garage	224		191, 197, 206, 209
concrete sidewalk.....	32	soap.....	328	interior	209	interior ...	207-208, 211-212
concrete slab.....	33	Disposal		patio door	216	interior cafe	209
concrete wall	33	basket strainer.....	328	pocket.....	222	interior slab	206
decks, wood	33, 432	batch feed	332	remove & replace... 191, 206		interior, birch	206
doors	36	cartridge	333		222	interior, colonial	211
drywall	242	food waste.....	332-333	Door lever,		interior, colonist	211
drywall ceiling.....	311	mounting assembly	333	privacy	213	interior, fir	208
equipment rental	29	septic system	332	Door locks	217	interior, French	212-213
estimating.....	27	sink flange	333	patio	216	interior, full louver, pine... 212	
fence.....	30	sink stopper.....	333	Door locksets... 183, 201, 202		interior, hardboard.....	207
floor cover	311	waste	30	Door push bar.....	226	interior, hardboard,	
flooring.....	274	Disposer		Door roller.....	216	colonist	207
framing	34	garbage	332-333	Door stop.....	213	interior, lauan	206-207
garage	31	cord		Door threshold.....	216	interior, oak... 206, 208, 212	
guardrail	30	accessory kit	333	Door track hardware.....	222	interior, pine	208
joists	34	sink stopper.....	333	Door trim.....	194	interior, pine louver.....	212
kitchen cabinets	311	Distribution box		painting labor.....	451	interior, prehung ... 209-210	
kitchen fixtures	311	electric.....	520	Doors		interior, prehung,	
masonry.....	31	Distribution panel		4-panel	193	knotty alder	212
molding.....	35	disconnect & remove... 417		6-panel	192	interior, solid core.....	207
panelling.....	252	Ditching.....	42	adding or removing	182	lauan.....	210
plaster.....	242	Ditra.....	304	bar	209	lever latchset	213
plaster ceiling	311	Dock & fence post		basement.....	226	lockset repair	201
porch	33, 432	preservative.....	470	bi-fold.....	219-221	metal, reversible.....	194
shower stall	348	Dome light ceiling fixture... 422		bi-fold, louvered.... 220-221		mirrored	221

mobile home.....	222	Doors, exterior framing and replacing...	179	corner bead	247	Ductless mini-split	379
molded face.....	207-208	Doors, interior	181	corner tape	249	Dumont kitchen sink	322
oak.....	210	Dormer studs.....	75-76	demolition.....	35, 242, 312	Dump fees	30
pantry	212	Double bowl kitchen sink ..	322	demolition, wet	512	Dump trucks rental	29
patio	214	cast iron.....	322	dustless sanding system.....	251	Dumpster	518
patio grille.....	216	stainless steel.....	321	finish.....	244	rental	30
patio handle.....	216	Double cylinder door handle	202	fire code type X	243	trash	30
patio lock	216	Double doors	211-212	fire-resistant.....	243	Duplex receptacle CO/ALR	415
patio roller	216	Double oven wall	335	flexible	244	commercial grade.....	415
patio threshold.....	216	Double-hung windows insulated.....	159	greenboard	244	handy box cover.....	404
patio, aluminum.....	215	replacement.....	157	hand sander	250	straight blade.....	414
patio, double.....	215	screens.....	160	hanging	228	waterproof cover	408
patio, fiberglass	215	vinyl-clad	159	installation	242, 244	Duratemp panel siding	111
patio, gliding	214	wood	163	J-bead	248	Durock backerboard	291
patio, hinged.....	214	Double-track storm windows.....	165	joint compound	245-246	Durock cement board	245
patio, sliding	214	Downlight ceiling fixture	420	joint tape.....	246	Dust control	516
patio, sliding, aluminum ..	215	LED	423	J-trim	248	Dustless drywall sanding system	251
patio, steel	215	Downspouts acid wash	446	L-trim	248	DWV pipe remove & replace.....	388
patio, swinging	214-215	galvanized steel	146	mildew resistant	243	E	
patio, vinyl	215	painting labor.....	456	moisture resistant	243	E.L. Mustee	329
pet	216	remove and replace	106	moisture-resistant.....	243	Earthquake anchor	492
pet, cat	216	residential.....	146	mold resistant.....	243	Earthquake damage (IBC) seismic safety standards	477
pocket	222	Drain connector garbage disposal to dishwasher	334	nails	249	(IPMC) seismic safety standards	477
prehung	186, 197	Dishwasher	329	outside corner trowel.....	250	(IRC) seismic safety standards	477
red oak	192	Drain stopper.....	329	painting	463-464	structural improvements.....	478
removal.....	36, 197	flat sink	329	panel lift.....	250	structural improvements, (IRC).....	478
repair	175, 191	Drain, waste and vent lines, plumbing for	373	patch.....	242	structural improvements, permits for	478
replacement.....	175	Drainboards, countertops.....	291	primer.....	246	Earthquake damage prevention anchors, hold-down.....	480
replacement procedure ..	185	Drawer front cabinet.....	312	repair	242	bracing hillside homes ..	482
screen.....	203	Drawer pulls	320	repair clips	249	bracing, cripple walls.....	480
screen, installation	202	Drawn box 2-device switch.....	405	repair kit	248	bracing, open front	481
screen, metal.....	203	handy.....	404	repair patch	248	foundation bolting.....	479
screen, pine.....	203	octagon.....	405	repair sheet	244	masonry chimneys, anchoring.....	483
screen, replacement	203, 216	Drip cap	141	repairing	234	tension ties on split-level homes	483
screen, steel	203	door bottom seal	196	sander kit.....	250	Earthquake damage prevention, FEMA recommendations.....	479
screen, vinyl	203	molding, wood	114	sanding respirator	250	bracing hillside homes ..	482
screen, wood.....	203	Drip edge	142	sanding sponge.....	250	cripple wall bracing.....	480
security	205	aluminum	141	screws	249	foundation bolting.....	479
security, Paradise-style.....	205	Driveway forms.....	44, 50	spray texture	244	hold-down anchors.....	480
security, with screen, heavy-duty.....	205	Driveways, concrete.....	50	tape	246	masonry chimneys, anchoring	483
setting trim.....	184	Drop ceiling panel.....	255-257	taping and finishing	230	open front bracing	481
shower	349	soffit.....	312	texture	244	tension ties on split-level homes.....	483
sidelites	198	Drum mushroom ceiling fixture.....	421	texture spray	244	Earthquake damage repair chimneys	490
slab.....	192-193	Dry ice blasting.....	517	textured finishes	232	concrete cracks	487
solid core.....	192, 197	Dry rot remediation.....	92	topping compound	246	cracks in plaster and stucco	489
steel	198	Dry tile grout non-sanded	303	vinyl outside corner bead	248	drywall	490
steel exterior.....	199	Dryback vinyl wall base.....	288	Drywall tape, white, fiberglass.....	246	electrical systems.....	491
steel, 6-panel.....	198	Dryer wall cavity	519	Drywall tools electronic stud sensor ..	249	epoxy injection	487
steel, entry.....	198	Dry-out.....	509	hammer	250	fireplaces	490
steel, exterior.....	199	Emergency	509	sander	251		
steel, prehung	198	Drywall arch, bullnose.....	247	screw gun, battery-powered	249		
steel, prehung, with mini-blind.....	198	ceiling, demolition.....	311	screwdriver	249		
stile & rail.....	208	ceilings	232	screwdriver bit.....	250		
storm	204-205			screws, collated.....	249		
storm, all-season.....	204			stilts	250		
storm, aluminum.....	204			texture brush	250		
storm, aluminum and wood.....	204			trowel.....	250		
storm, removal	204			trowel, corner	250		
storm, self-storing.....	204			T-square	250		
storm, triple-track	204			Dual sensing smoke alarm	416		
storm, woodcore.....	205			Dual weatherproof lampholder & cover	408		
terms	188			Dual-ionization smoke detector	416		
weatherstripping.....	196			Duct heating, removal.....	376		
Doors, entry.....	175			runs, installation	377		
antiquing.....	176			Duct tape	518		
reassembling.....	179						
rebuilding.....	178						
refinishing.....	176						
repairing holes.....	177						

floors out of level.....	488	Electric water heater....	386-387	Entry doors.....	193, 198-200	Exterior trim, painting.....	443
foundations and slabs....	487	PowerStar™.....	387	deco fan lite.....	193	Exterior wall assemblies....	71
framing.....	488	tankless.....	387	fiberglass.....	200-201	Exterior window shutters...	167
gypsum drywall.....	490	Electrical management		oak.....	194	Extraction	
mechanical systems.....	491	system		Epoxy crack repair.....	493	Water.....	509
plaster.....	489	Smart home.....	424	Epoxy floor coating.....	475	Extruded polymer	
plumbing systems.....	491	Electrical non-metallic		Epoxy gloss coating.....	476	molding.....	263
stucco.....	489	tubing conduit.....	407	Epoxy mortar.....	302	Eyeball trim light kit.....	420
Earthquake damage,		Electrical systems		Epoxy primer.....	476		
checking for		licensing and code		Equipment costs.....	13		
before making repairs...	486	compliance.....	390	Equipment rental			
jobsite walk.....	486	National Electrical Code		demolition.....	29		
structural engineer.....	486	(NEC).....	390	foundations and slabs...	40		
Earthquake damage,		power shortfall.....	389	Escape window.....	172		
cosmetic.....	477	repairing earthquake		Estimating home			
Earthquake damage,		damage.....	491	improvement costs			
increased risk		service upgrade.....	390	hanging doors.....	5		
when adding a room....	484	Eliahe ceramic tile.....	293	price book.....	6		
when making		Eljer.....	322	problems.....	5		
alterations.....	484	Elkay Manufacturing... 321, 331		Estwing.....	250		
when removing		Embossed basswood		Eternit.....	139		
wall bracing.....	485	molding.....	259	Excavation.....	42		
Earthquake damage,		Embossed concrete.....	51	backfilling.....	41		
structural.....	477	Embossed decorative		fine grading.....	41		
Easysills.....	165	molding.....	259	footings.....	41		
Eave closure.....	140	Embossed tileboard.....	251	rock.....	41		
Eave vents.....	90	Embossing leveler.....	281	spreading.....	42		
Decomesh.....	89	Emergency dry-out		tamping.....	42		
Eaves		service.....	509	topsoil.....	42		
painting.....	460	Emser International.....	294	Excelon vinyl composition			
Edeck.....	432	EMT conduit.....	402, 406	tile.....	285-286		
Edge		45-degree elbow.....	403	Exhaust fan.....	364		
drip.....	141-142	90-degree elbow.....	403	bath.....	362-365		
flashing, roof.....	143	combination coupling...	404	bath, vertical discharge...	363		
Edge forms, concrete....	41, 44	compression connector...	403	ceiling.....	363		
Edge protection tile.....	299	coupling.....	404	QuieTTest.....	364		
Edge pulls.....	222	offset compression		timer switch.....	366		
Edge V-plank.....	252	connector.....	404	utility, vertical discharge	363		
Efficiency cast iron kitchen		offset screw connector...	403	ValueTest with light.....	364		
sink.....	322	set screw connector.....	403	vertical discharge.....	363		
Egg & dart cast molding...	262	strap.....	404	vertical discharge.....	363		
Egg knob locksets.....	202	EMT conduit, removal....	402	with heater.....	365		
Eggshell wall paint,		EMT strap.....	404	with infrared heater.....	365		
latex.....	472	Emulsion		Exhauster, roof.....	145		
Elastocaulk.....	136	asphalt.....	133	Exit bar.....	226		
Elastomastic.....	136	Enamel		Expansion bolt.....	492		
Elastomeric roof coat....	137	floor & porch.....	475	Expansion joints			
Elastomeric waterproofing		interior & exterior.....	473	concrete.....	47		
paint.....	474	latex.....	472	Exposed aggregate finish...	50		
Elastotape.....	136	oil-based.....	476	Exposed aggregate			
Elbow		painting.....	463-464	sealer.....	475		
45-degree plain end.....	401	wall & trim.....	472	Exposed round conduit box			
90-degree.....	403	Enamel undercoater		non-metallic.....	408		
90-degree standard		interior.....	471	Extendable roller.....	287		
radius.....	401	Encapsulate mold.....	517	Extension kit			
EMT 45-degree.....	403	Encapsulated fiberglass roll		jamb.....	216		
EMT 90-degree.....	403	insulation.....	85	Exterior & interior stain			
pulling.....	403	Enclosure, shower		acrylic.....	467		
rigid or IMC steel		pivot door.....	349	Exterior clear finish.....	469		
conduit.....	409	End panel		Exterior door jambs.....	194		
rigid steel conduit.....	409	base cabinets.....	313	Exterior doors.....	193		
rigid steel conduit.....	409	cabinet.....	312, 314	Exterior doors.....	193		
service entrance.....	412	wall cabinets.....	315	Exterior doors.....	193		
Electric baseboard		Energy-efficient electrical		Exterior doors.....	193		
heaters.....	384	upgrades.....	424	Exterior doors.....	193		
Electric cooktop.....	335	ENT conduit.....	407	Exterior doors.....	193		
Electric metallic tube		Entertainment sink.....	331	Exterior doors.....	193		
conduit.....	402, 406	Entrance cap		Exterior doors.....	193		
Electric metallic tube		PVC.....	402	Exterior doors.....	193		
conduit removal.....	402			Exterior doors.....	193		
Electric service panel.....	419			Exterior doors.....	193		
Electric space heaters.....	372			Exterior doors.....	193		
Electric wall oven.....	335			Exterior doors.....	193		

lavatory, two-handle	356	Finished box cover	405	roll valley	141, 143	Floor covering	
Roman tub	347	Finishes		roof	134	tile, resilient	267
supply	358	exterior clear	469	roof edge	143-144	wood	267
tub & shower	349-350	flat latex	472	roof, removal	134	Floor drying system	519
Feather edge additive	282	floor, oil-based	469	roof-to-wall	144	Floor enamel	475
Federal Emergency		interior classic clear	469	service entrance roof	412	Floor finish	
Management Agency		log home gloss	469	shingle	144	oil-based	469
(FEMA)		rust-resistant	476	step	144	Floor furnace, gas	384
recommendations	479	stain gel, non-wood	468	w-valley	144	Floor insulation	80
structural improvements	478	wood	467	Flashing cement		Floor jacks	54
Fees		Finishing		pro-grade	135	Floor joist	
recycling	30	concrete	50-51	Flashing leaks	118	demolition	34
Felt		Finishing compound		Flashing paper		repair	54-55
roofing	133	wallboard	246	roof	88	Floor molding	
roofing, glass fiber	134	Finishing putty		Flashing, pipe		hardwood	274
scribing	287	Pergo	279	tile roof	145	Floor plank choices for	
Fence		Fink truss	76	Flat masonry &		porches and decks	430
demolition	30	Fir doors	192-193	stucco paint	474	Floor primer	281
staining labor	454	Fire doors	192	Flat paint	472	Floor tile	
Fence & barn paint	476	Fireblocks	68	exterior, satin	474	ceramic	291-294
Fence post preservative	470	Firebrick	115	interior	472	granite	295
Fernco	334	Fireplaces		latex	474	marble	294
Fiber cement		demolition	115	Flat sink drain stopper	329	natural stone	295
lap siding	112	masonry,		Flex conduit		parquet	278
siding	113	repair	104	appliance connection	397	Place n Press	285
siding panel	112	prefabricated	116	Flex screw-in connector	406	Saltillo ceramic	295
soffit	112	repairing earthquake		FlexBond bonding		slate	295
trim for siding	112	damage	490	mortar	302	travertine	295
Fiber-cement		Fire-rated door frames	194	Flexible aluminum		vinyl	284-285
roofing	139	Fire-rated doors	197	conduit	406	vinyl, slip-retardant	285
Fiberglass aluminum roof		Fire-resistant drywall	243	Flexible armored BX		wood	278
coating	137	Fish tape	393	cable	399	Floor trim	
Fiberglass roof coating	137	flex cable snake	397	Flexible bonding mortar	302	wood	275
Fiberglass		Fissured ceiling		Flexible connector		Floor warming system	301
base sheet	133	panel	256-257	90-degree	406	thermostat	301
panels	140	Fixed shower door	349	90-degree insulated	406	Flooring	
reinforcing membrane	136	Fixed skylights	172-173	Flexible metal corner		adhesive for rubber tile	286
screen rolls	168	Fixture removal	510	tape	249	adhesive for vinyl sheet	286
window trim, bath	347	Fixture gasket removal	346	Flexible steel conduit	406	adhesive for vinyl tile	286
Fiberglass asphalt		Fixture supply lines	358	Flip locks		adhesive for wood	278
shingles	131	Fixture valve lines	358	window	171	adhesive remover	281
Fiberglass ceiling		Fixture, light		Float		bamboo plank	276
panel	256-257	ceiling	422	carpet	511	carpet	304
Fiberglass doors		chandelier	422	ceramic tile	290	demolition	36, 274, 311
entry	200-201	chrome bath bar	421	demolition, wet	513	hardwood plank	276
Fiberglass insulation		fluorescent ceiling	421	hardwood, sanding	277	heart pine plank	276
batt	84	flush mount ceiling	421	Hevea parquet	278	installation spacer	279
Kraft-faced	84	jelly jar	423	laminated floor		underlayment	280
roll	84-85	motion sensing	423	laminate strip	280	maple hardwood	275
unfaced	84	mushroom flush mount	422	maple strip, unfinished	277	molding, laminate	280
Fiberglass mat roof patch	135	outdoor bulkhead	423	molding, wood laminate	279	Northwoods hardwood	274
Fiberglass reinforced plastic		outdoor wall lantern	423	oak	275	oak parquet	278
panels	253	remove & replace	421	oak self-stick parquet	278	oak, solid hardwood	274
Fibron	432, 434	wave bath	421	Pergo	279	Pergo underlayment	279
Field adhesive		Fixtures		Pergo underlayment	279	red oak, strip	277
SBS	134	troffer fluorescent	258	removal	274	repairs	62
Field tile		U-lamp troffer		rustic oak plank	276	sealant, laminate	279
setting with adhesive	290	fluorescent	258	setting with adhesive	290	setting with mortar	290
setting with mortar	290	Flange kit		sheet vinyl	282-283	strips, natural wood	275
Fill		load center	417				
excavation	41	Flashing					
Filler		aluminum roll	141				
crack	136	aluminum siding	113				
Filler strip	313-315	angle	142				
oak	317	copper formed	142				
wood	138	counterflash	144				
Film		galvanized	142				
polyethylene	87	gravel stop	142				
Finish carpentry		lead	143, 145				
countertops	318	patch	135				
siding	107	pipe	143, 145				
Finish sealer		removal	129				
high-gloss	303	repair	129				

surface preparation	280	Flush valve urinal, Sloan Royal.....	351	partitions, wood	66-67	locks	225
teak	275	Flute & reed molding	261	repairs	62	low headroom kit	225
TrafficMaster laminate	280	Foam insulation	85	room additions	64	operators	225
transition reducer strip	288	Foam underlayment... 279-280		straightening	494	raised panel	223
transition strip	288	Foam weatherstripping	196	wall studs	66	replacement	223
trim, hardwood	277	Foamular XAE	85	Framing lumber	432	steel	223
underlayment	281	Foil		Framing straps	492	steel, non-insulated	224
underlayment & patch	282	aluminum	88	French doors	193, 208	torsion spring	223
underlayment skimcoat	282	barrier	88	interior, double	212-213	trolleys, installation	223
vinyl roll	282-283	Folding doors		painting labor	451-452	weather seal	224
vinyl sheet	283	accordion	217	Frenchwood	214, 216	Garage slabs	43
vinyl wall base	289	locks	217	Frieze cast molding	262	Garbage disposal	
water extraction	511	Footings	49	FRP panel molding	253	basket strainer	328
white oak strip	277	concrete	47, 49	FRP wall and ceiling		connector, dishwasher	
wood	277	continuous	49	panel	253	drain	334
wood laminate	279	demolition	32	Full-view storm doors	205	Garbage disposer	332-333
wood plank	276	excavation	41	Fungicide	92	cord kit	333
wood, installation tools	277	keyway	49	Furnace		mounting assembly	333
Flooring installation system		Forced air furnace	377	coal	384	mounting gasket	333
laminate floor	280	Forced-air heating	371	counterflow, gas	377	removal	311
Flooring over concrete	272	Formica countertops	318	flue	379-383	sink flange	333
Flooring trim	280	Forms		gas, duct	376	sink stopper	333
bamboo	276	board	44	gas, floor	384	switch, sink top	333
heart pine	277	concrete	49	gas, thru-wall	384	Garden windows	158
Flooring, resilient		curb	45	gas, wall	384	Gardner	135-136
sheet vinyl	270	footings	45	horizontal flow, gas	377	Gas breaker	
Flooring, tile		foundation	44-45	low boy, gas	376	rental	29
ceramic	272	keyway	45	oil fired	377	Gas cooktop	335
ceramic, tips on	273	plywood	44	remove & replace	378	Gas furnace	
cork	271	stripping	45	wood burning	384	counterflow	377
granite	271	wall	44	Furniture		exterior wall duct	376
marble	271	Formwork		Blocking	509	horizontal flow	377
Flooring, wood		stripping	45	Moving	509	interior wall duct	376
hardwood	268	Forsyth composite sink	323	Furniture pad	518	low boy	376
laminate	270	Foundation		Furring		Gas water heater	385
softwood	268	access doors	88	floor	72	power vent	387
strip	268	anchor	492	wood	72	tankless	387
Floors, sagging	54	bracket	492	G		Gasket	
Floors, wood		crack repair	493	Gable		fixture, remove &	
fixing squeaks	56	demolition	32	truss	76	replace	346
Flue		vent	88	Gable louver, metal	90	mounting	333
chimney	379	vents	88	Gable vents	89	wax, toilet bowl	351
chimney, aluminum	379	Foundation and roof coating		metal	90	Gates	
furnace	379-383	non-fibered	129	power attic	92	security	205
Fluidmaster	351-352	Foundation and slab pre-		redwood	90	Gazebo ceiling fan	424
Fluorescent ceiling fixture	421	construction checklist	38	Gabrielle Comfort Height		GE Appliances	334-335
Fluorescent diffuser fixture		Foundation bolt	492	toilet	351	Gel stain	468
low profile	421	Foundation insulation	86	GAF	131, 134, 145	General requirements	30
Fluorescent fixtures		Foundations		GAFLAS		Generator	520
parabolic troffer	258	concrete	47-48	ply 4 glass felt	134	Genesis kitchen faucet	325
U-lamp troffer	258	cracks (active or		Torch and Mop System	134	Georgetown lavatory	
Flush doors	219	dormant)	37	Galvanized		faucet	357
bi-fold closet	219	equipment rental	40	bullnose corner bead	247	Georgia-Pacific	245, 251, 253
birch exterior	192, 197	footings	49	Galvanized flashing	142	GFCI circuit breaker	417
birch interior	206-207, 210	forms	44	Galvanized rigid steel		plug-on	420
fire-rated	192	leaky basement walls	37	conduit	409	GFCI receptacle	405, 415
hardboard	192	repair	37	Galvanized roofing	138	duplex waterproof	408
hardboard exterior	197	Frame		louver	145	hospital grade	415
hardboard		painting labor	451	Galvanized steel		vertical	408
interior	206-207, 209	sink	327	rain gutters	146	wet location cover	408
hardboard, interior	207	Frame wall		Garage		GFI plug-on circuit	
hardwood exterior	192, 197	aligning	494	demolition	31	breaker	420
lauan exterior	192	Frameless corner		Garage doors	223	Girders	
lauan interior	206-207, 210	cabinet	367	bonded steel	224	carpentry	62
oak entry	194	Frames		bottom seal	223	Glacier Bay	
oak interior	206, 210	door	194	extension springs	225	324, 326, 330, 354-356	
painting labor	451-452	Framing		hardware	225	Glacier Extensa kitchen	
red oak interior	210	cut window opening	156	installation	223	faucet	325
steel exterior	198-199	damage	53	insulated	224	Glaslock interlocking	
steel utility	198	demolition	34, 264	jamb hinge	224	shingles	130
Flush mount ceiling		estimating, problems				Glass	
fixture	421-422	with	53			jalousie	169
Flush mount light fixture	422	interior doors	206, 209			measure & cut	170

Glass block mortar mix 302	Guardrail demolition 30	Hardware bi-fold door 221	Hinged Shower door 349
Glass cutters 171	Gutters acid wash 446	door, patio 216	Hinges door 196
Glass felt ply 4 134	aluminum 146	garage door 224-225	cabinet 321
Glass globe ceiling fixture 422	flashing cement 135	pocket door 222	cabinet, Euro 320
Glazing bead 170	galvanized steel 146	screen door 203	garage door 224
Glazing compound 170	painting labor 456	Hardwood flooring demolition 311	solid brass 196
latex 170	patching material 135	molding, embossed 259	Hip and ridge shingles 130
Glazing points 170	remove and replace 106	molding, Victorian base 259	Hip shingles 131
Glazing putty remove and replace 170	roof caulk 136	paneling 251	Hold-down anchor 492
Glazing tool 171	vinyl 146	Hardwood doors 192	Hole cover faucet 328
Glidden 472-475	Gutting, demolition 31	fire-rated 192	Hollow core doors 207
Gloss polyurethane oil 475	Gypboard painting 463-464	prehung 197	Hollow metal doors 194
Gloss & seal, tile 304	Gypsum demolition 35	Hardwood flooring demolition 36	Homax 473
Gloss enamel alkyd 473	greenboard 71	maple 275	HomeLine circuit breaker 417
Gloss finish, log home 469	type X 71	molding 274, 276	indoor main lug load center 417
Glue Pergo laminate floor 279	Gypsum base Imperial 245	oak 274-275	HomeStyle 256
Grade beams concrete 49	Gypsum board DensArmor 243	removal 274	HomeStyle suspended ceiling 256
formwork 45	Gypsum lay-in ceiling panel 257	rosewood 275	Hood range 336-337
Granite aggregate concrete 47	Gypsum panel lift 250	sanding 277	range, quiet 336
countertop 319	Gypsum wallboard demolition 242	strip 274	range, vented 336
floor tile 295	fire code 243	TapTight 276	Hooks bathrobe 369
mortar mix 302	flexible 244	trim 277	Hopper gun ceiling finish 244
setting adhesive 302	installation 242, 244	Harris-Tarkett 274, 276-277	Hopper vinyl window 159
tile flooring 271	joint cement 246	HazMat protection 518	Hospital grade receptacle GFCI 415
tile, natural 295	joint tape 246	Headers carpentry 68	Hot mix, spreading 52
vanity top 361	mold resistant 243	Headroom kit 225	Hot water dispenser 329
Granules roofing 136	primer 246	Heart pine flooring trim 277	Hot water heating systems 372
Gravel stop 142	repair 242	plank flooring 276	Hotmopping roofing 132
Gravity heating 371	spray texture 244	Heat recovery ventilator retrofit 386	House wrap 88
Gray Board insulation 85	water resistant 243	Heat-A-Lamp bulb heater & fan 365	Hub bolt-on A type universal 418
Grecian cast molding 262	H	Heat-A-Ventlite heater 366	watertight conduit 410
Greek key chair rail 262	Hammer drywall 250	Heaters baseboard, electric 384	Humidifier, central 377
Greenboard 71	Hampton Bay™ 421, 423-424	whirlpool bath 347	HVAC central air conditioning 377
Greenhouse panels 140	Hand sander drywall 250	Heating duct removal 376	cleaning 510
Greenwaste recycling 30	Handle sets double cylinder 202	Heating system component removal 376	component removal 376
Greenwich kitchen sink 323	entry door 202	Heating systems electric space heaters 372	hydronic heating 378
Grilles door, patio 216	Handrail painting 461	hot water, radiant heating 372	hydronic heating system 378
Ground bar kit breaker box 420	patio deck 435	Heating systems, warm air forced-air 371	radiator, cast iron 378
QO load center 420	Handy box cover, blank 404	gravity 371	removal of components 376
Ground fault interrupter plug-on circuit breaker 420	drawn 404	Heating, hydronic 378	restoration 92
Ground rod clamp 412	welded 404	Helmman spar urethane 468	Hydraulic door closers 217
Grounding bushing insulated metallic 410	Hanger bracket lavatory 353	Henry 133, 135-137, 254, 281-282, 286	Hydraulic jacks 62
Grout colorant 303	Hangers pocket door 222	HEPA central air filtration retrofit 378	Hydronic heating 378
Saltillo 303	Harbour Collection 285	HEPA vacuum 520	Hydro-X Vacuum 511
sanded 303	Hardboard lap siding 112	Hevea parquet flooring 278	Hygienist industrial 515
sealer 304	panel siding 111	High boy threshold, oak 195	I
tile 290	Hardboard doors 192, 207, 209	High early strength concrete 48	Ice dam shield 88
tile, non-sanded dry 303	fire-rated 197	High time factors 446	Illuminated incandescent slide dimmer 416
Grout mix concrete 47	Hardboard siding 100	High-gloss enamel 473	IMC conduit 409
Grouting concrete 51	Hardibacker 291	High-gloss finish sealer 303	body 411
GRS conduit removal 409	Hardie 112		bushing 410
Guard window 167	Hardipanel 112		coupling 409-410
	Hardiplank 112		elbow 409
	Hardisoffit 112		

hub	410	birch, flush	206-207	pocket door	222	polycast	323
nipple	411	cafe	209	Jameco	328	single bowl	321
service entrance elbow	412	fir	208	James Hardie	112, 291	stainless steel	321
strap	411	fire-rated	211	Jasco	470-471, 475	Kitchen sink basket	
Imperial		flush	209-210	J-bead		strainer	328-329
gypsum base	245	flush	207	metal	248	Spin-N-Lock	328
Incandescent ceiling		half louver	208	plastic	248	washer	329
fixture	422	hardboard	207	J-channel		Kitchens	
Incandescent slide		hardboard, colonist	207	thermoplastic	108	appliances	309
dimmer	416	hardboard, flush	206-207	vinyl	107	cabinets and counters	306
Indoor & outdoor cable		heater closet	210	Jeffrey Court	296	cabinets and counters,	
type NM-B Romex		hemlock, prehung	212	Jelly jar fixture	423	costs	307
sheathed	397-398	knotty alder	212	Job survey		cabinets and counters,	
Indoor main lug load		lauan	207	(scope of work)	11	custom-made	308
center	418	lauan, flush	206-207	Joint cement		cabinets and counters,	
Homeline	417	oak	208	lightweight	245	refinishing	307
Industrial hygienist	515	oak	212	Joint compound	246	design	305
Infiltration barrier	88	oak, flush	206	Joint repair		electrical service	
Infrared bulb heater &		pine	208, 212	concrete	493	checklist	310
fan	365	pine louver	212	Joint tape, drywall	246	remodeling checklist	309
Ingenium Flushing		prehung	211-212	Joints		work triangle	306
System	351	Interior flat paint	472	expansion	47	Klean-Strip	467
Innovations lavatory		Interior latex		Joists		Knob and tube wiring	391
faucet	357	eggshell	472	bridging	65	Knobs	
Inside corner bead		flat finish	472	ceiling	73	cabinet	320
metal	247	paint, semi-gloss	473	demolition	34	Knockdown ceiling	245
Inside corner molding		Interior paint	472	floor	64-65	Knockdown door	
polystyrene	264	Interior painting		TJI	65	frames	194
In-Sink-Erator	329, 332-333	labor	446	J-trim		Knockdown drywall	
Ins-X	476	Interior sanding		metal	248	texture	244
Installation kit		labor	446	Jubilee White Ice beaded		Knockdown stucco	473
floating floor	276	Interior trim		paneling	251	Knockers, door	213
Pergo	279	baseboard	238	junction box	404	Kohler	321-323,
Installation system		casing	238	Junior basket strainer	331	325-326, 351, 355, 358	
laminate flooring	280	molding	238			Kool Patch	
Insulated grounding		Interior wall assemblies	70			acrylic roof patching	
bushing, metallic	410	Interlocking shingles	130			cement	135
Insulating bushing		Intermatic	416			Kool Seal	135
high-impact		Intermediate metal				Kraft-faced	
thermoplastic	410	conduit	409			fiberglass roll insulation	84
Insulation		International					
blow-in cellulose	85	Thermocast	324, 331				
board	80, 85	In-wall spring wound					
board, demolition	35, 312	timer	416				
built-up roofing,		Island sink					
patch	131, 132	polycast	331				
ceiling	79						
FBX	86						
fiberglass	84-85						
fiberglass batt	84						
fiberglass, unfaced	84						
floor	80						
foam	85						
foundation	86						
masonry	87						
natural fiber	87						
polystyrene	85						
pouring	87						
R-Gard	86						
rockwool	86-87						
roof, perlite	86						
SAFB	87						
sill gasket	86						
sound control	86						
vapor barrier	81						
vermiculite	87						
wall	80						
Interior							
pressure wash	510						
Interior & exterior stain							
acrylic	467						
Interior acrylic latex paint	472						
Interior doors	212-213						

M

534 National Home Improvement Estimator

Main lug load center.....	419	lighted.....	367	Moisturbloc polyethylene	280	wall base.....	280
HomeLine indoor.....	417	mirrored.....	367	film.....	280	wall, suspended ceiling...	255
indoor.....	418	octagonal.....	367	Moisture barrier.....	280	Molding set	
Mallet, rubber.....	287	oval.....	367	Moisture-resistant drywall...	243	brick.....	260
Man-O-War marine spar		single door.....	367	Mold		Molding, crown.....	261
varnish.....	468	sliding door.....	367	abrading.....	517	Molding, hardwood.....	275
Maple plank flooring.....	276	swing door.....	367	blasting.....	517	rosewood.....	275
Maple hardwood		tri-view.....	368	containment structure...	516	Monticello lavatory	
flooring, solid.....	275	Medium density fiberboard		encapsulation.....	517	faucet.....	357
molding.....	275	molding.....	261	protective equipment...	518	Mop, roof.....	136
Maple strip flooring.....	277	Megatrade.....	293	removal.....	517	Mortar	
Marble		Melard.....	352	sampling.....	515	acrylic admix.....	303
countertop.....	360	Membrane		testing.....	515	bedding.....	302
floor tile.....	294	anti-fracture.....	301	Mold and mildew		bonding.....	301-302
listello tumbled tile.....	296	fiberglass reinforcing...	136	sanitizer.....	511	CustomBlend thin-set...	302
mortar mix.....	302	polyethylene.....	304	Mold inspection.....	515	epoxy.....	302
setting adhesive.....	302	tile, anti-fracture.....	301	Mold remediation.....	515	flexible bonding.....	302
threshold.....	296	Mesh		by job size.....	506	porcelain.....	302
tile.....	294	crack repair.....	248	cleaning methods.....	508	thin-set.....	302
tile flooring.....	271	Metal conduit		industrial hygienist.....	506	thin-set tile.....	289
Margin notch trowel.....	287	flexible.....	406	insurance coverage.....	505	tile.....	290
Marine varnish.....	468	galvanized.....	409	protocol.....	515	tile repair.....	302
Markup vs. margin.....	7	Metal corner bead ..	247, 249	sampling and protocol...	507	underwater tile repair ...	303
Masco.....	356-357	Metal doors.....	194	Mold Retarder.....	92	Mortar mix	
Mask		bi-fold.....	220	Molded face closet		glass block.....	302
safety.....	250	Metal primer.....	476	doors.....	220	marble & granite.....	302
Masonite Corp.....	253	rust converting.....	476	Molding		Mosaic ceramic tile.....	300
Masonry		Metal screen doors.....	203	base.....	263	Motion sensor	
chimneys, repair.....	104	Metallic grounding bushing		base cap.....	260	security light.....	423
cleaning.....	115	insulated.....	410	base shoe.....	260	heavy-duty.....	423
demolition.....	31	Meter main load center ..	417	bead.....	260	lantern.....	423
fireplace demolition.....	115	Meter socket.....	417	brick.....	195	Moulding	
fireplaces.....	115	Metro sheet vinyl flooring...	283	casing.....	263	hardwood.....	259
fireplaces, repair.....	104	Microwave oven		cast.....	262	Mount Vernon paneling...	251
furring.....	72	Advantium.....	335	chair rail.....	260, 262	Mounting assembly	
insulation.....	87	over-the-range.....	335	chair rail paperwrap.....	264	disposal.....	333
joints.....	115	Midget louvers.....	91	chair rail prefinished....	264	Mounting bracket	
painting labor.....	456-458	Milban.....	511	crown.....	259	non-metallic low	
pointing.....	115	Milban 1-2-3.....	516	demolition.....	35	voltage.....	402
protective coating.....	475	Mildew resistant drywall...	243	embossed basswood ..	259	Mounting kit	
recycling.....	30	Mineral fiber ceiling		embossed decorative		sink.....	327
repointing.....	115	panel.....	257	hardwood.....	259	Mud	
veneer.....	103	Mineral siding.....	93	extruded polymer.....	263	joint cement.....	245
walls, waterproofing.....	130	asbestos cement.....	94	hardwood.....	259, 276	wallboard.....	246
Masonry & concrete		asbestos testing.....	94	hardwood floor.....	274	Mullions	
waterproof.....	475	Mineral surface roll		hardwood parquet.....	278	window.....	166
Masonry & stucco paint...	474	roofing.....	133	heart pine.....	277	Multi gang switch box.....	405
Masterchem.....	472, 474	Mini can recessed		inside corner.....	264	Mushroom light fixture.....	422
Mastic		light kit.....	420	inside corner & cove			
tile.....	290	Miniature circuit breaker		paperwrap.....	264		
Material costs.....	11	QO.....	419	laminated flooring.....	280		
Mayfield sink.....	322	Minwax.....	467-469, 471	MDF colonial base.....	261		
Maytag.....	335	pickling stain.....	468	MDF ultralite crown.....	262		
MDF		Polycrylic.....	469	medium density			
casing.....	261	Polyshades.....	468	fiberboard.....	261	N	
chair rail.....	261	polyurethane.....	469	oak, unfinished.....	277	Nail plate, stud.....	399
paneling.....	251	spar urethane.....	468	outside corner.....	264	Nailer strip, carpentry.....	73
MDF molding		Miracle Sealants Co.....	303	paperwrap.....	264	Nailers.....	73
base corner.....	261	Mirror bath light bar.....	421	polystyrene.....	264	Nailite siding.....	107
colonial base.....	261	Mirrored doors		painting labor.....	459	Nails	
plinth block.....	262	bi-fold.....	221	panel.....	253	drywall.....	249
ultralite crown.....	262	bypass.....	218	paperwrap.....	263	vinyl siding.....	107
Mechanical systems		Mirrored sheet.....	171	polystyrene.....	263	National Electrical Code	
repairing earthquake		Mirrors		primed finger		(NEC).....	390
damage.....	491	frosted.....	366	joint base.....	260	National Estimator Cloud....	8
Medicine cabinet		oval.....	366	quarter round.....	261	Natural Images floor tile ...	285
beveled edge.....	367-368	vanity.....	366	reversible flute & reed...	261	Natural stone floor tile.....	295
bi-view.....	368	Mission tile roofing.....	139	rosette block.....	259	Needle beams.....	62
etched glass.....	367	Miter bolt kit.....	320	round edge stop.....	261	Negative air scrubber.....	519
framed.....	367	Mobile home doors.....	222	stop.....	195	Neptune.....	321
framed door.....	366	Modified bitumen		stucco.....	196	Neptune marble	
frameless.....	367-368	adhesive.....	133	T-astragal.....	194	countertop.....	360
light bar.....	368-369	Moen.....	325, 354, 357-358	Victorian hardwood		New wood treatment.....	470
				base.....	259	Nipple	
				vinyl tileboard.....	264	rigid conduit.....	411

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Patch		Pergo	279	Plaster of Paris	246	Points	
built-up roofing	131-132	finishing putty	279	Plastering		glazing	170
drywall	248	flooring	279	pool	440	Pole sander	251
Elastocaulk roof patch	136	flooring sealant	279	spa	440	Polish	
Elastomastic roof patch	136	flooring underlayment	279	Plastic		Boston	471
flashing	135	installation	279	conduit	400	Poly bags	518
Kool Patch cement	135	installation kit	279	gutters	146	Poly sheeting	516
PondPatch	136	laminate glue	279	lumber	437	Polyblend	
popcorn	245	Presto floor molding	279	siding	107	ceramic tile caulk	303
roof caulk	136	Presto laminate flooring	279	Plasticized concrete	48	Polycarbonate sheet	171
roof cement	135	Pergola patio cover	439	Plate		Polycast kitchen sink	323
roofing	134-135	Perimeter berm	510	service entrance conduit		Polycrylic	
roofing, cotton	136	Perimeter wall insulation	86	sill	412	protective finish	469
roofing, wood shingle	137	Perlite texturing paint		single gang Decora		Polyester	
underlayment	281-282	additive	473	wall	415	stress-block fabric	136
vinyl	281	Permanent Bond		single gang plastic		Polyester carpet	304
Wet Patch roof cement	135	Adhesive	133	wall	415	Polyethylene film	41, 87
Wet Stick roof cement	135	Perma-Shield	216	stud nail	399	moisture barrier	280
Patching		Pet doors	216	Plate cover, toilet base	351	Polyethylene membrane	
cement, roof	135	Pet doors, cat	216	Plate straps	493	Schluter Ditra	304
concrete	51	Phone wall plate	413	Plate, splash	337	Polymer molding	263
Patio cover		Picket fence		Plates		Polysol shades polyurethane	
aluminum, embossed	439	staining labor	454	carpentry	64	stain	468
aluminum, standard	439	Pickling stain		carpentry piecework		Polystyrene casing	
Patio doors	214-215	white wash	468	rates	67	reversible	264
aluminum	214-215	Picture windows	162	Platinum lavatory faucet	357	Polystyrene insulation	85-86
aluminum, double	214	Pier, concrete	63	Plexiglas	171	Polystyrene molding	
fiberglass, swinging	215	Pine		Plinth	435	base	263
gliding, vinyl	214	door casing	195	Plinth block	259	outside corner	264
grille	216	door casing, fluted	195	MDF primed	262	Polyurethane	
handles	216	flooring trim	277	Plug		fast-drying	469
hardware	216	plank flooring	276	connecting appliance	397	oil gloss	475
hinged, vinyl-clad	214	screen doors	203	Plug-on circuit breaker		stain	468
installation	214	siding	108-110	ground fault interrupter	420	Polyurethane cast	
jamb extension kit	216	Pine doors	208	Plumb bob	287	molding	262
locks	216	Pine jamb sets	209	Plumb Shop	329, 334	chair rail	262
roller	216	Pine planking	252-253	Plumbing and HVAC		corner block	262
screen	216	Pine square rosette		bath tub framing	375	cross head	262
screen & track	216	molding	259	framing for		frieze	262
swinging, double	214	Pipe		improvements	374	rope	262
threshold	216	ABS	388	repairs, cutting		PondPatch	136
vinyl	215	ABS replacement of		floor joists	374	Pool paint	476
Patio roof	435	cast iron	388	repairs, pricing	374	Pool replastering	440
Patio screens		copper replacement of	388	repairs, utility walls	375	Popcorn ceiling	
replacement	216	cast iron	388	Plumbing drain, waste and		patch	245
Pavement		copper replacement of	388	vent lines	373	spray	244
concrete	47, 50	galvanized	388	Plumbing systems		spray texture	244
demolition	33	PVC DWV	388	repairing earthquake		Porcelain	
Paver tile	295	PVC replacement of	388	damage	491	bath accessory set	301
brick	296	cast iron	388	Plumbing vent	370	mortar	302
Paving		Pipe flashing	143, 145	relocate	370	towel bar	301
asphalt	52	tile roof	145	Plus 10 Exterior Stain	467	Porcelain, glazed	
concrete	47, 50	Pitch pan	129	Ply 4 glass felt	134	floor tile	292
demolition	33	Pitch pocket	129	Plywood		Porch	
Paving breaker		Pits, excavation	41	roof sheathing	77	columns	435
rental	29	Place n Press floor tile	285	sheathing	66, 70	columns, aluminum	435
Pea gravel		Plain end 45-degree		siding	111	demolition	432
concrete	47	elbow	401	siding, T 1-11	111	enclosure screen	438
Pedestal lavatory		Planing concrete	493	subfloor	66	misting system	438
combo	352	Plank floor clamp	277	Plywood cap molding	263	repair	432
leg set	352	Plank flooring		Plywood siding	99	roof framing	435
removal	353	bamboo	276	pre-finished	99	screen frame	438
Pedestal Sink		heart pine	276	Pneumatic breaker		support posts	435
Top	353	rustic oak	276	rental	29	Porch & floor enamel	475
Peel & Patch		wood	276	Pocket doors		Porches	
waterproofing	135	Plank paneling	252-253	edge pull	222	additions	426
Peep sights	214	beaded	252	hangers	222	balustrades	428
Pellets		Edge-V	252	hardware	222	columns and posts	427
dry ice	517	Plaster		jamb	222	elevated decks	428
Penetrating stains	443	demolition	35, 242, 312	kit, converging	222	Porches and decks	
Penetrating wood finish		demolition, wet	513	Pointing trowel	287	choices in floor plank	430
Preserva-Wood	467	painting	460-461	Pointing, masonry	115	inspecting for decay	425
		repair	494			maintenance	431
		veneer	246				

Portland cement stucco..... 114	base cap..... 260	PVC pipe 388	RCA..... 413
Post base, plinth..... 435	base shoe..... 260	DWV 388	Ready-mix concrete 47
Posts basement..... 63	bead 260	PVC service entrance cap 402	Rebar 45
cap..... 436-437	brick 260	Pyro-Kure paper 88	Rebond..... 304
carpentry 63	chair rail..... 260		Receptacle
deck..... 432-433, 436	crown..... 261		appliance flush mount... 415
jack posts 63	flute and reed 261		CO/ALR duplex 415
porch 432, 435	quarter round..... 261		duplex..... 415
wood..... 435	Primed tilt double-hung windows..... 163		duplex straight blade... 414
Pouring insulation 87	Primer	Q	GFCI..... 415
Power attic gable vents..... 92	adhesive 278	QO circuit breaker	GFCI, hospital grade... 415
Power distribution box..... 520	bonding..... 473	GFI plug-on 420	remove 414
Power massage shower head..... 350	clean metal..... 476	main..... 418	side-wired single 415
Power vent gas water heater 387	concrete..... 473	miniature..... 419	Receptacle cover
Power ventilators	epoxy..... 476	tandem 419	GFCI, wet location..... 408
attic gable..... 92	flooring..... 281	QO load center ground bar kit 420	horizontal duplex weatherproof 408
roof-mount 92	gypsum wallboard 246	QO main lug load center 418-419	Recessed light kit 420
Power washing 448	latex..... 471	Quarry tile 295	Recessed lighting 420
PowerStar 387	metal..... 476	Quarrybasics 295	Recoating 441
PowerStream..... 387	resilient flooring 281	Quarter round	Rectangular weatherproof box..... 407
Power-vent water heater 385	rusty metal..... 476	bamboo 276	Recycler fees..... 30
PPE 518	water-based..... 472	floor molding.. 274-276, 280	Red cedar
Pre-drying 509	Primer sealer 474	molding..... 263	western, siding 108
Prefinished molding	oil-based..... 473	primed finger joint..... 261	Red Dot 407-408
chair rail..... 264	stainblocker 474	Quick Roof..... 135	Red oak
Prefinished paneling..... 252	Privacy latchset, egg knob 213	QuickBooks 10	plank flooring..... 276
Prehung doors..... 209-211	Pro Finisher 469	QuietTest bath fan..... 364	strip flooring..... 274, 277
double..... 212	Propane water heater..... 385	Quietzone 86	Red rosin sheathing 87
exterior 198	Propane-fired water heater 385	Quik-Tape..... 248	RedGard waterproofing membrane 301
fire-rated..... 197, 211	Protection tile edge..... 299	Qwik-Gard 420	Reducer
French 212-213	Protector wood..... 470		bamboo 276
hardboard..... 197	ProtectoWrap..... 303	R	carpet 280
heater closet..... 210	Protocol	RACO 404-406	floor molding..... 274-275
installation..... 197	mold remediation..... 515	RADAR Illusion	laminate flooring..... 280
interior 212	Provisa range hood 336	ceiling panel 257	Reducer floor
oak..... 212	P-trap	Radiant heating systems... 372	molding..... 275-276
pantry 212	remove & replace..... 346	Radiator	Reducer strip
patio, steel..... 215	Pull bar 277	cast iron..... 378	tile..... 300
steel..... 199-200	Pull plates, door..... 213	Rafter	vinyl flooring 288
steel, exterior, with mini-blind..... 198	Pulling elbow, 90-degree ... 403	bay vent channel 88	Reducing
steel, half lite 198	Pulls	spacing 88	window opening size.... 156
steel, installation..... 197	Drawer..... 320	Rafters	Reducing bushing
Prelude 255	edge, pocket door 222	demolition..... 34	non-metallic..... 400
Premium Plus 475	Pump	rough carpentry 75	rigid or IMC..... 410
interior flat paint..... 472	water..... 520	Ragione 292	Redwood
primer sealer 473	Pump mix concrete..... 47	Rail	siding..... 109
satin flat exterior paint... 474	Pumps	deck..... 436	vents..... 90
Preserva products 467	sewer..... 370	painting..... 461	Reed & flute molding..... 261
Preservative	Purlins	sink 298	Refinishing in-ground spa..... 440
dock & fence post 470	carpentry 76	Rail molding	Reinforcing
wood..... 470-471	Push bar	paperwrap 264	bars 45
Preserva-Wood penetrating finish..... 467	door 226	prefinished chair..... 264	membrane, fiberglass... 136
Pressure wash	Push plates, door 213	Railing	slab..... 48
interior 510	Pushbutton	patio deck..... 435	steel..... 45
Pressure washer 520	garage door..... 225	Rain cap, chimney..... 380	steel, galvanized 46
Pressure washing	Putty	Rain gutters 146	Remediation
manhours 448	finishing 279	aluminum 146	dry rot 92
Price Pfister..... 325-326, 330, 354-355, 357	PVA latex primer 471	galvanized steel 146	mold..... 515
Primed finger joint casing	PVC	Ranch casing..... 195	Removal
colonial 260	faucet supply 358	Clearwood PS 263	Appliance..... 510
ranch 260	PVC conduit	primed finger joint..... 260	Carpet..... 511
Primed finger joint molding	coupling..... 401	Ranch door casing	Fixture 510
base..... 260	elbow..... 401	primed finger joint..... 195	glazing putty 170
	Schedule 40 400	Random textured ceiling panel..... 255	skylight 172
	Schedule 80 400	Range hood..... 336	window 156
	PVC conduit body..... 401	Ballista..... 336	window glass..... 170
	PVC conduit clamp	custom..... 337	windows..... 156
	Snap Strap 400	Provisa 336	
		vented..... 336	

Remover		Ring type meter socket ...	417	Roof cement	135	sheets.....	138
adhesive	278	Rings		wet patch.....	135	shingle remover.....	136
flooring adhesive	281	towel	369	Wet-Stick.....	135	shingle starter strip.....	131
Rental		Rivets.....	255	Roof coating		shingles,	
air mover	519	paneling.....	253	acrylic.....	137	algae-resistant.....	130
dehumidifiers.....	518	Robe hook	369	aluminum.....	137	shingles, architectural ...	131
dry ice blaster.....	517	Roberts	278	elastomeric.....	137	shingles,	
floor drying system.....	519	Rock		fibered	137	asphalt fiberglass... 130-131	
generator.....	520	recycling	30	silicone.....	137	shingles, hip and ridge... 131	
gypsum panel lift	250	Rocker switch		Snow Roof.....	137	slate	139
negative air scrubber... 519		Decora AC quiet.....	414	Roof covers	164	tar	132
remediation equipment . 518		Rockwool insulation.....	87	Roof deck		tear-off	129
wall cavity dryer.....	519	Rod clamp		removal.....	129	tile	140
Repainting a home	446	ground	412	repair	129	tile, clay	139
Repair		Roll		walking	140	tools.....	136
shingles, tin	144	screen.....	168	Roof edge flashing ... 143-144		Roofing cement	133
Repair clips, drywall	249	Roll flashing		Roof exhaust vent		built-up	133
Repair kit		aluminum.....	141	T-top	145	Roofing fabric	
drywall	248	copper	141	Roof flashing		asphalt	131
toilet.....	352	Roll roofing	134	chimney.....	380-381	Roofing louver	
Repair mesh		mineral surface.....	133	service entrance.....	412	galvanized	145
crack.....	248	Roll valley		Roof framing.....	75	Roofing material	
Repair patch, drywall	248	flashing.....	143	jacking	75	built-up	127
Repairs		Roller		Roof jack	145	modified bitumen	
door	191	extendable.....	287	rubber.....	145	(APP and SBS)	127
Replace-A-Vent	89	painting labor.....	448	Roof loading	140	new roof	122
Replacement screen		Roller spline tool.....	168	Roof openings		shingles, asphalt-	
doors	203	Rollers		cut for skylights	172	fiberglass (composition) ... 124	
Replacement windows		door, patio	216	Roof overhang		shingles, wood	123
vinyl	157	Roll-on		adding.....	61	Roofing materials, life	
vinyl double-hung	157	texture, acoustic.....	473	painting.....	459-460	expectancy	121
vinyl single-hung	158	texture, stucco.....	473	Roof patch		Roof-mount	
Replastering		Rollup doors		cotton.....	136	power ventilator	92
pool.....	440	garage	223	rubberized	135	Roofs	
spa.....	440	Roman tub		Roof patching cement		flashing leaks	118
Resilient flooring		filler.....	347	white	135	how to measure	
sheet vinyl	270	Romex	392	Roof repair.....	58	roof area.....	128
Resilient tile		Romex sheathed cable		Roof sheathing	60	repairs	121
adhesive	286	indoor	397-398	Roof turbine vent.....	146	source of leaks.....	117
demolition.....	36	indoor & outdoor.....	398	Roof turbine vents	91	Roof-to-wall flashing.....	144
removal.....	274	Roof		Roof vent		Rope cast molding.....	262
Resin siding.....	107	bay window	164	repair, waterproofing ... 130		Rope crown cast molding ... 262	
Respirator	518	bow window.....	164	waterproofing.....	130	Roppe.....	288-289
sanding drywall	250	built-up.....	132	Roof vent kit		Rosette molding	259
Retaining wall forms.....	48	cant strips	86	bath	366	square	259
Reversible doors	194	deck.....	435	Roof ventilation.....	83	Rosette set	195
Reversible flute & reed		demolition.....	34	Roof waterproofing	135	Rosewood	
molding		flashing.....	88	repair	129	flooring trim	275
primed finger joint.....	261	flashing, removal.....	134	replace	130	hardwood flooring.....	275
Reversible polystyrene		flashing, self-adhesive.. 134		Roofing		Roto hammer	
casing	264	insulation	86	asphalt.....	132	rental	29
R-Gard insulation	86	louver.....	91, 145	base sheet.....	133	Rough carpentry.....	53
RhinoBoard.....	291	membrane	132	broom with scraper.....	136	backing and nailers	73
Ribbands	73	patch.....	135	built-up.....	132, 134	bracing.....	67
Ribbons, carpentry	73	patch, shingle.....	137	built-up, patch.....	131-132	ceiling joists.....	73
Ridge and hip shingles... 130		patio	435	built-up, tear-off	129	ceilings and joists	73
Ridge shingles.....	131	patio cover.....	439	cement trowel.....	136	collar beams.....	75
Ridge vent	144	sagging ridge board	59	clay tile	139	collar ties.....	75
aluminum.....	90	sheathing, OSB	70, 77	concrete tile.....	140	curbs.....	75
Cobra Rigid	145	sheathing, plywood	77	demolition	34	dormer studs	75
coil.....	90	silicone coating.....	141	felt.....	133	floor joists	64
rigid.....	145	tile, clay	139	fiber-cement slate.....	139	floor trusses.....	65
shingle-over.....	145	tile, concrete.....	140	fiberglass panels	140	furring	72
VentSure	144	trusses.....	76	flashing, removal.....	134	girders	62
Rigid conduit		trusses, repair	76	flashing, self-adhesive ... 134		joists	68
coupling	409	trusses, rough carpentry... 76		galvanized	138	ledger strips.....	73
strap	411	underlay.....	88	granules.....	136	plates.....	67
Rigid insulation	85	urethane spray foam ... 140		gravel.....	132	posts.....	63
Rigid steel conduit		Roof and foundation coating		membrane	132	purlins.....	76
elbow	409	non-fibered	129	mop	136	rafters	75
galvanized	409	Roof apron.....	143	patch.....	135	ribbons.....	73
installation	409	Roof caulk	136	roll.....	133-134	roof trusses	76
removal.....	409			sheet metal.....	138	sill plates	64

studding..... 66-67	Saturated cotton roof patch	sill..... 86	Sheathed cable
subflooring..... 66	asphalt..... 136	tile..... 304	indoor..... 398
trimmers..... 75	Savannah lavatory faucet... 357	tile & stone..... 303	indoor & outdoor
wall openings..... 72	Sawing	water-based..... 472	Romex..... 398
wall studs..... 66	concrete slab..... 51	waterproofing..... 475	Type NM-B Romex.. 397-398
window openings..... 72	SBS field adhesive..... 134	Sealer primer	Sheathing
Round conduit box	ScapeWel window..... 172	stainblocker..... 474	board..... 66, 70
non-metallic..... 408	Schedule 40 PVC	water-base..... 474	carpentry..... 66
Round edge stop	conduit..... 400	Sealer's Choice 15 Gold... 303	demolition..... 35
molding..... 261	Schedule 80 PVC	Sealing conduit locknut	insulated..... 85
Royal Mouldings..... 264	conduit..... 400	steel..... 410	plywood..... 70, 77
Royelle vinyl sheet	Schluter Ditra polyethylene	Seal-Krete..... 475	roof..... 70, 77
flooring..... 283	membrane..... 304	Seam coating kit..... 287	T 1-11..... 111
Rub, carborundum..... 51	Schluter Systems	Seats	Sheathing paper..... 87
Rubber	 299-300, 304	toilet, plastic..... 352	Sheet
mallet..... 287	Scotchgard..... 512	toilet, wood..... 352	acrylic..... 171
roof jack..... 145	Scratch coat, plaster..... 114	SEBS styrene-ethylene-	mirrored..... 171
wall base..... 288	Screed	butylene-styrene	Plexiglas..... 171
wet patch roof cement... 135	rental..... 40	asphalt..... 135	Sheet flooring
Rubber studded tile..... 286	Screen	Security doors..... 205	adhesive..... 286
Rubber tile adhesive..... 286	aluminum rolls..... 168	heavy-duty..... 205	removal..... 274
Rubberized	fiberglass rolls..... 168	Security doors,	vinyl..... 282-283
roof patch..... 135	frame kit..... 167	Paradise-style..... 205	Sheet metal
Rust resistant finish..... 476	patch..... 168	Security gates, folding..... 205	gutters, downspouts..... 146
Rustic oak plank flooring... 276	porch enclosure..... 438	Security light	roofing..... 138
Rustic siding	spline..... 168, 439	motion sensor..... 423	Sheetrock
pine..... 108, 110	window..... 168	Security storm doors..... 205	ceiling panel..... 257
Rust-Oleum..... 468-469, 476	Screen doors	Seekure paper..... 88	demolition..... 242
	hardware..... 203	Seismic safety standards,	fire code..... 243
	installation..... 202-203	earthquakes..... 477	flexible..... 244
	metal..... 203	Self-stick	installation..... 242, 244
	pine..... 203	parquet flooring, oak.... 278	painting..... 463-464
	replacement..... 203	vinyl wall base..... 289	repair..... 242
	security, steel..... 203	wall base..... 289	water resistant..... 243
	steel, replacement..... 203	Self-storing storm doors... 204	Sheets, roofing..... 138
	vinyl..... 203	Self-tapping screws..... 141	Shelf
	wood..... 203	Semco..... 301	bath, with glass..... 369
	Screen frame..... 438	Semi-gloss	corner..... 300
	Screen vents..... 89	latex paint..... 473	painting..... 448
	Screen wire..... 438	wall enamel..... 472	Shellac
	Screens	Senco..... 249	amber..... 470
	patio door..... 216	SensAire wall control	ShellGard RTU..... 92
	window..... 160	switch..... 366	Shelves
	Screw gun, drywall..... 249	Sentinel Products..... 281	painting labor..... 448
	Screwdriver, drywall..... 249	Sentinel sheet vinyl	Sherwin-Williams..... 470
	Screwdriver bit, drywall... 250	flooring..... 283	Shield, ice & water..... 88
	Screw-in connector, flex... 406	Septic disposal cartridge... 333	Shim shingles..... 138
	Screws	Sequentia..... 253	Shims
	deck..... 439	Service entrance	flooring..... 62
	drywall..... 249	cap..... 412	stud..... 67
	drywall to steel..... 249	cap, PVC..... 402	Shingle
	drywall to wood..... 249	device, combination..... 418	flashing..... 144
	lag, drill tip..... 255	elbow..... 412	Shingle and shake siding... 100
	self-tapping..... 141	meter main load center... 417	furring, estimating..... 100
	Screws & clips,	roof flashing..... 412	Shingle panels..... 113
	sink mount..... 322	Service entrance conduit	Shingle siding..... 113
	Scribing felt..... 287	sill plate..... 412	cedar..... 113
	Scrubber	Service panel	Shingle starter strip..... 131
	negative air..... 519	electric..... 419	Shingles
	Seal	Set screw connector	algae-resistant..... 130
	garage door..... 223	EMT..... 403	architectural..... 131
	Seal & tile gloss..... 304	Setting adhesive	asphalt..... 130
	Sealant	marble & granite stone... 302	asphalt, repair..... 130
	laminate flooring..... 279	Shake felt..... 137	cedar..... 138
	Sealer	Shakertown siding..... 113	demolition..... 34
	concrete..... 475	Shakes	fiberglass asphalt..... 131
	exposed aggregate..... 475	cedar..... 137	hip and ridge..... 131
	grout..... 304	siding, replacement..... 105	interlocking..... 130
	high-gloss finish..... 303	Shank nut	laminate..... 130
	oil-based..... 473	sink strainer..... 329	paneled..... 113
	painting..... 463-464	Shaping slopes..... 42	roofing..... 130
	primer..... 473	Shaw HardSurfaces..... 280	siding..... 113
	sanding..... 469	Shear wall..... 492	siding, replacement..... 105

slate.....	139	T 1-11 plywood.....	111	entertainment	331	Soffits	
tin repair	144	thermoplastic.....	107	kitchen	322-324	aluminum.....	114
wood.....	137	touch up paint.....	108	kitchen, basket strainer...	328	demolition.....	35
wood, repair	137	trim	114	mounting clips	322	fiber cement	112
ShockWave	516	vinyl	96, 107	polycast	323	kitchen.....	312
Shower		western red cedar	108	Silhouette polycast.....	323	pendent lighting	312
stall kit	348	wood.....	93	single bowl	321, 323	refrigerator,	
stall kit, add-on.....	350	wood, diagonal.....	97	stainless steel.....	321-322	under counter.....	312
Shower & bathtub units...	348	wood, horizontal.....	97	stainless steel kitchen...	321	removal.....	106
Shower & tub faucet		wood, vertical.....	97	stainless steel single		stucco	114
single control	349	Siding & deck stain.....	467	bowl.....	321	vinyl	108
Shower curtain rod,		Siding and roofing		utility	330	Soil compaction.....	42
permanent	370	metal.....	247	Skid steer loaders		Solar lens	172
Shower door		Siding installation		rental	40	Solid core doors	
fixed.....	349	removing old siding	95	Skimcoat patch &		birch exterior	192, 197
hinged.....	349	Siding,		underlayment.....	282	entry	193
pivot.....	349	estimating procedure.....	104	Skylight removal	172	fir entry	193
sliding	349	Signature kitchen faucet...	325	Skylights		hardboard exterior... 192, 197	
swinging	349	SilentStep	279	acrylic	173	hardboard interior	207
Shower faucet	349-350	Silestone countertop.....	319	cut roof opening	172	hardwood exterior	192
Shower head		Silhouette polycast kitchen		fixed.....	172-173	luan exterior	192
power massage.....	350	sink	323	trimmers	75	prehung exterior	197
remove & replace	346	Silicone		tubular	172	red oak	192
sunflower.....	350	roof coating	141	venting.....	173	red oak exterior	192
Shower pan	348	Silicone roof coating.....	137	Slab doors... 192-194, 206-207		Solid surface countertop ... 318	
Shower stall		Silicone sealant		installation	191	Solitaire bath fan	365
demolition	348	window caulk.....	157	Slab leveling	493	Sound baffle, removable ... 333	
Showers.....	348	Siliconized roof coat	137	Slabs		Sound control	86
Shutters		Siliconizer		base.....	50	Soundbloc foam	
painting.....	461-462	crack filler	136	calculating area	43	underlayment.....	279
remove and replace	106	Sill		concrete.....	47	Southern yellow pine	
window	167	door, thermal	195	finishes	50	siding	109-110
Sidelites, steel door	198	window	165	forms	44	Spa replastering	440
Sidewalk, demolition.....	32	window, ceramic.....	297	garage	43	Spacer, laminate flooring ... 279	
Sidewalks, concrete	47, 50	Sill & saddle.....	296	on grade	50	Spacing, rafter	88
Side-wired receptacle,		Sill plate		repair	37	Spanish tile roofing.....	139
single	415	service entrance		Slate		Spar urethane	
Siding.....	107, 112	conduit.....	412	floor tile, natural.....	295	Helmsman	468
accessories, mounting... 107		Sill plate gasket.....	86	roofing	139	Spar varnish, marine	468
aluminum.....	93, 114	Sill plates	64	tile, tumbled.....	296	Spatter ceiling.....	245
aluminum corrugated ... 113		removal.....	63	Sleepers, carpentry	73	Spatter drywall texture..... 244	
cedar	108	Sill sealer.....	86	Slide dimmer		Speaker wire	413
cedar T&G.....	109	Single bowl kitchen sink		illuminated	416	Speed-Wall	
corrugated	113	stainless steel.....	321	incandescent	416	interior latex enamel.... 473	
demolition	35	Single gang wall plate 415		Sliding		PVA latex primer	471
fiber cement	112	Single receptacle		shower door	349	Spider box	
fiber cement shingles... 113		side-wired	415	Sliding windows.....	161-162	electric.....	520
hardboard	100	Single-hung		Sloan Royal flush valve... 351		Spin-N-Lock sink strainer... 328	
hardboard lap	112	windows.....	158, 160-161	Slopes, shaping.....	42	Splash plate.....	337
hardboard panel	111	Single-texture drywall		Slot aperture light kit	420	Spline	
lap.....	110	brush	250	Smart home electrical		screen, porch	439
log cabin.....	110	Sink		management system.... 424		tool.....	168
mineral.....	93-94	bathroom	353	Smoke alarm,		window screen	168
mounting block, fixture... 107		frame	327	dual sensing	416	Split system, remove	378
Nailite	107	hardware	322	Smoke and CO Alarm 416		Sponge	
OSB.....	111	lavatory.....	353	Smoke detector	396	sanding, drywall	250
painting.....	462	mounting kit.....	327	basic.....	416	Spray adhesive.....	249
panel.....	98	removal.....	311	dual sensing	416	Spray painting	
paneled shingles.....	113	strainer shank nut.....	329	dual-ionization	416	labor	448
pine.....	108	undermount	353	Snap Strap PVC conduit		Spray texture	244-246
pine rustic.....	108, 110	wall-mount.....	353	clamp.....	400	ceiling	244
pine shiplap	110	Sink rail, ceramic.....	298	Soap dish		wallboard.....	244
plywood	99, 111	Sink trap		ceramic.....	300	Spreading soil.....	42
redwood.....	109	remove & replace	346	porcelain.....	301	Spring wound timer	
removal.....	106	Sinks		Soap dispenser	328	in-wall	416
repair	105	bar	330-331	Soffit		Springs	
resin.....	107	bowl	330	painting.....	459-460	garage door.....	223
shingle	113	Breckenridge	324	wood.....	73	garage, extension.....	225
shingle and shake	100	Cambridge.....	324	Soffit vents		window sash.....	166
shingles, replacement... 105		cast iron.....	322-323	louvered.....	89	Spruce	
southern yellow		composite	323-324, 331			lap siding	110
pine	109-110	double bowl	321, 323				
staining.....	462	double bowl composite... 324					

Square box surface cover..... 405 welded..... 405	Stiles, drywall 250	Strips asphalt roofing starter ... 131 cant..... 137 shingle starter..... 131	Suspended ceiling panel... 256
Square D 417-420	Stone base..... 50 cleaning..... 115	Structoglas..... 253	Suspended ceiling systems 255
Square rosette molding ... 259	countertops..... 319	Stucco knockdown 473	Suspended ceilings 237
Squeeze connector, flex... 407	floor tile..... 295	molding, redwood..... 196	Sweep, door 196
Stain acrylic interior & exterior..... 467	roofing 139	paint..... 474	Swimming pool paint 476
concrete..... 475	sealer..... 303	painting..... 460-461	refinishing..... 440
deck..... 467	setting adhesive 302	plastering..... 114	Switch AC quiet toggle..... 414
deck & siding..... 467	slate..... 139	portland cement 114	Decora AC quiet rocker... 414
Deck Plus..... 467	tile, travertine..... 294	removal..... 106	remove 414
exterior 467	tile, tumbled..... 296	repair , 103, 105, 494	sink top 333
gel..... 468	Stonit 139	soffit vents 89	Switch & cover..... 408
Plus 10 467	Stop fixture supply..... 351	texture 473	Switch box drawn 2-device..... 405
polyurethane..... 468	Stop gravel 142	wall assembly, wood framed 71	multi gang..... 405
siding..... 467	Stop molding 195	Stud sensor electronic..... 249	non-metallic old work ... 402
white wash 468	round edge 261	Stud straightening 67	Switches fan control 366
wood..... 468	Stopper, drain..... 329	Studding 66	timer, exhaust fan..... 366
Stainblocker primer sealer 474	Stops Rust..... 476	Studs carpentry piecework rates..... 66	T
water-based..... 472	Storage off site..... 518	demolition..... 34	T 1-11 plywood siding 111
Staining labor, manhours	Storage cabinet bath 367	straps..... 493	T molding..... 280
ceiling 450	etched glass 367	wall assemblies 66	wood floor..... 274
fascia..... 453	Store-in-Door 204	Stump grinder rental 29	Tall boy water heater..... 385
paneled walls 465	Storm collar chimney..... 380-381	styrene 30	Tamping, excavation 42
picket fence 454	Storm doors..... 204-205	styrene grinding 285	Tandem circuit breaker.... 419
siding..... 462	aluminum..... 205	Stylistik II floor tile 285	Tank thermal expansion..... 386
wood deck 455	full-view 205	Styrene suspended lighting panel..... 258	Tape acrylic 287
Stainless steel sink... 321-322	removal..... 204	Styrene-ethylene-butylene- styrene 135	corner bead 249
double bowl 321	security..... 205	Subfloor board sheathing 66	drywall 246
single bowl 321	self-storing..... 204	OSB..... 66	drywall joint 246
Stair nose 280	triple-track..... 204	plywood 66	fish 397
bamboo 276	woodcore..... 205	Subflooring installation 66	Tape, tile backer..... 249
molding..... 274-276	Storm windows..... 149, 165	piecework rates 66	Tape-on bead 247
Stair stringers, basement... 226	remove and replace..... 106	Sump pump 370	Tapping block 277
Stairs basement..... 226	StormGuard..... 88	Sundial vinyl sheet flooring..... 283	TapTight hardwood flooring..... 276
deck..... 437-438	Straight blade receptacle duplex..... 414	Sunflower shower head... 350	molding..... 27
demolition..... 36	Straightening framing 494	Supply lines 358	Tar, roofing 132
porch 437-438	Strainer junior basket 331	Supply lines, toilet 351	T-astragal 194
stringers..... 438	sink shank nut 329	Supply stop..... 351	Teak, flooring..... 275
Stall kit, shower 348	Strainer, basin remove & replace..... 346	Surface box cover, square 405	Teak oil..... 471
add-on 350	Strap EMT..... 404	Surface preparation flooring..... 280	Tear-off, roofing..... 129
Stamped concrete 51	rigid conduit..... 411	labor 446	Temporary wall bracing 67
Stanadyne 327	Straps framing 492	manhours 446	Termin-8 wood preservative..... 470
Standard coupling non-metallic..... 401	hardware 493	Surface box cover, square 405	Terrazzo demolition..... 36
Standard radius elbow.... 401	T 493	tub wall 347	Testing mold..... 515
Starter strip 131	tie..... 493	Surround kit bathtub 347	Textolite counters 318
Starter strip, aluminum siding 114	Stress-block fabric polyester..... 136	light kit 420	Texture paint..... 473
Steam cleaning, masonry ... 115	Stretch wrap 518	lighting panel..... 258	paint additive 473
Steel conduit elbow..... 409	Stringers deck stair..... 438	panel..... 255-257	roll-on 473
elbow, rigid or IMC..... 409	Strip transition..... 288	panel, acoustical 256	Sand-Texture wall 473
galvanized rigid 409	Strip flooring laminate..... 280	Suspended ceiling demolition..... 35, 254, 311	stucco 473
Steel doors entry 199-200	maple, unfinished..... 277	installation 254	Texture 1-11 plywood siding..... 111
exterior 198-199	natural wood..... 275	installation kit..... 255	Texture brushes drywall 250
frames 194	red oak 277	light kit 420	Texture spray gypsum board 244
garage 223	white oak 277	lighting panel..... 258	Texture touch-up kit acoustic ceiling..... 244
installation 197	Stripping forms 45	panel..... 255-257	
screen..... 203	soil 42	panel, acoustical 256	
Steel octagon box cover ... 406	Stripping paint labor 447		
Steel sealing conduit locknut..... 410			
Stem wall 49			
Step flashing..... 142, 144			
copper 142			
Stile & rail doors 208			

Texture, drywall.....	244	gloss & seal.....	304	Tileboard molding		Towel ring.....	369
ceiling.....	245	granite.....	295	vinyl.....	264	Track, patio door.....	216
spray.....	244, 246	granite floor.....	295	Tilt double-hung windows...	163	TrafficMaster laminate	
Textured ceiling panels...	257	grout.....	290	Timberline Ultra.....	131	flooring.....	280
Textured lap siding.....	111	grout, sanded.....	303	Timbertex.....	131	Transit mix concrete.....	47
Texturing paint additive		installation.....	289	Timer		Transition reducer strip	
Perlite.....	473	marble.....	294	in-wall, spring wound....	416	vinyl flooring.....	288
The Association of Bay Area		marble floor.....	294	Timer switch.....	366	Transition strip	
Governments.....	480	mortar.....	302	Tin		carpet to tile.....	288
Themes sheet vinyl		mosaic ceramic.....	300	repair shingles.....	144	oak to tile.....	288
flooring.....	283	natural cork.....	289	TJI		Trap, lavatory	
Thermal expansion tank....	386	non-sanded dry grout....	303	joists.....	65	remove & replace.....	346
Thermal sill.....	195	parquet floor.....	278	T-molding.....	276	Trash	
Thermoplastic siding.....	107	paver.....	295	bamboo.....	276	bins.....	30
Thermostat		Place n Press floor.....	285	hardwood.....	275	Trash compactor	
floor warming system....	301	polyethylene membrane...	304	wood floor.....	275	removal.....	311
Thermostat cable.....	413	quarry.....	295	Toggle switch		Trash pump.....	520
THHN copper wire		reducer strip.....	300	AC quiet.....	414	Travertine	
gauge.....	412	repair, mortar.....	302	Toilet base plate cover....	351	floor tile.....	295
Thin-set mortar.....	302	resilient, demolition.....	36	Toilet bowl		stone tile.....	294
CustomBlend.....	302	roofing.....	140	gasket.....	351	Treads	
Thompson's.....	470	rubber studded.....	286	reset.....	346	concrete, finishing.....	50
Thompsonized decking		Saltillo ceramic floor....	295	Toilet fill valve		Treatment	
lumber.....	434	sealer.....	303	anti-siphon.....	351	wood.....	470
Thoro.....	475	sealer, high-gloss.....	303	remove & replace.....	346	Tree removal.....	30
Thoroseal protective		setting with adhesive....	290	Toilet flange		Trenchers	
coating.....	475	setting with mortar.....	290	cast iron.....	351	rental.....	40
Threaded conduit body....	411	slate floor.....	295	Toilet paper holder.....	369	Trenching.....	42
Three gang box		thin-set mortar.....	289	Toilet repair kit.....	352	hand.....	41
Super Blue,		travertine floor.....	295	Toilet seat		Trim	
non-metallic.....	402	travertine stone.....	294	molded wood.....	352	aluminum siding.....	114
Threshold		tumbled marble listello..	296	plastic open-front.....	352	bamboo flooring.....	276
ceramic.....	297	tumbled slate.....	296	wood.....	352	door.....	194
high boy.....	195	tumbled stone.....	296	Toilet supply line.....	351	fiber cement siding.....	112
marble.....	296	vinyl composition....	285-286	Toilet tank bolt kit.....	352	hardwood flooring.....	277
patio door.....	216	vinyl floor.....	284-285	Toilet tissue paper		heart pine flooring.....	277
Thru-the-wall utility fan...	364	wall.....	299	holder.....	300-301	painting labor.....	451, 459
Thrutone.....	139	wall, ceramic.....	299	Toilets		window.....	347
Thru-wall furnace, gas....	384	wood flooring.....	278	Comfort Height.....	351	wood flooring.....	275
Tie straps.....	493	Tile accessory set		dual flush.....	350	Trim enamel	
Ties		porcelain.....	301	hook-up kit for low-boy...	351	latex satin.....	472
collar.....	75	Tile adhesive		one-piece.....	350	Trim pack	
Tile		ceramic.....	289	two-piece.....	350	wood paneling.....	252
accessories, ceramic....	300	resilient.....	286	urinals.....	351	Trim paint.....	472
accessories,		rubber.....	286	wall-mount.....	351	eggshell.....	472
toilet tissue holder.....	300	stone.....	302	Tongue and groove siding		flat.....	474
accessories,		thin-set.....	302	cedar.....	109	Trimmers.....	75
toothbrush holder.....	301	vinyl.....	286	Tools		Trimming, trench bottom...	41
accessories, towel bar....	301	Tile adhesive caulk		ceramic tile.....	287	Trine.....	416
acoustic, demolition.....	35	ceramic.....	303	drywall.....	249-251	Triple-track storm	
anti-fracture membrane...	301	Tile backer.....	245	glazing.....	171	doors.....	204-205
anti-fracture membrane		Tile backer tape.....	249	roof repair.....	136	Troffer fluorescent fixtures	
kit.....	303	Tile backerboard.....	291	spline.....	168	LED.....	258
backerboard.....	291	Tile cutter		Toothbrush & tumbler		parabolic.....	258
bullnose, ceramic....	297-298	vinyl.....	287	holder.....	301	U-lamp.....	258
carpet.....	304	Tile flooring		Toothbrush holder.....	369	Trowel	
ceiling.....	254	cork.....	271	porcelain.....	301	drywall.....	250
ceiling, acoustical.....	253	Tile Perfect.....	303	Top		outside corner.....	250
ceiling, tin design.....	254	Tile repair		laminated plastic....	319-320	Trowel finishing, concrete...	50
ceiling, wood fiber.....	254	mortar.....	302	Topping compound		Troweling machine	
ceramic caulk.....	303	mortar, underwater.....	303	wallboard.....	246	rental.....	40
ceramic floor.....	291-294	Tile tool		Topping, concrete.....	51	Trowels	
ceramic floor & wall.....	293	ceramic.....	287	Topsoil, excavation.....	42	margin notch.....	287
ceramic wall.....	297, 299	Tile tub wall.....	347	Torsion springs.....	223	notched.....	287
ceramic, demolition.....	36	Tile underlayment		Touch control lavatory		pointing.....	287
clay, roofing.....	139	Aqua-Tough.....	291	faucet.....	355	Tru-Glaze 4508 epoxy gloss	
concrete roof.....	140	Tile, ceiling		Touch-up kit		coating.....	476
demolition.....	311	zero clearance grid		spray texture.....	244	Trusses	
edge protection.....	299	system.....	255	wood floor.....	274	fink.....	76
finish.....	303	Tileboard		Towel bar.....	369	gable.....	76
floor.....	295	batten.....	251	ceramic.....	301	roof.....	76
glazed ceramic.....	299	embossed.....	251	porcelain.....	301	T-square	
glazed porcelain.....	292					drywall.....	250

T-straps	493	Underlayment & floor patch	282	Vanity cabinet	362	screen	89
T-top roof exhaust vent	145	Undermount sink	353	mirrored with marble top	362	soffit	89
Tub		Underwater tile repair mortar	303	Vanity mirror	366	under eave	89
laundry	329	Unfaced fiberglass batt insulation	84	Vanity top		VentSure ridge vent	144
utility laundry, kit	329	Universal hub bolt-on A type	418	granite	361	Vermiculite insulation	87
Tub & shower faucet single control	349	Urethane roof, spray foam	140	Neptune shell marble	360	Vertical discharge bath fan	363
Tub door		Urinals		Newport cultured marble	360	ValueTest	363
bypass	347	Dover	351	oval bowl cultured marble	360-361	Vertical discharge utility fan	363
Tub faucet	349-350	USG	245, 254	rectangular cultured marble	360	Vibrators	
Tub, bath		USG Interiors	257, 291	shell bowl cultured marble	360-361	rental	40
removal	346	Utilatub laundry tub	329	Vanity top and bowl cultured marble	361	Victorian base molding	
Tub, laundry		Utility access door	248	Vapor barrier	41, 81, 279	hardwood	259
hose	330	Utility bowl sink	330	blanket insulation	82	Victorian lavatory faucet	357
overflow tube	330	Utility cabinets		paper	87	Viewer	
Tubular skylights	172	birch	313	perm rating	82	door	214
Tuf-Tex spray texture	246	finished	316	vapor-resistant coating	82	Villeta faucet	354
Tumbled tile		maple	317	Vapor retarder	92	Vinyl	
marble listello	296	oak	315, 317	Varathane		bay windows	158
slate	296	red oak	314	exterior classic clear	469	circular windows	159
stone	296	Utility fan		exterior clear finish	469	door bottom	196
Tumbler & toothbrush holder	301	thru-the-wall	364	interior classic clear	469	double-hung replacement windows	157
Tung oil	471	vertical discharge	363	oil-based floor finish	469	fascia	108
Turbine vent		Utility laundry tub kit	329	Varnish		garden windows	158
roof	91, 146	Utility sink	330	marine spar	468	hopper windows	159
Turned spindle deck rail	436	Utility tub kit	329	Velux	172-173	jalousie windows	159
Twinfast	249	V		Veneer base board	245	patch	281
Two-gang box		V siding		Veneer plaster	246	screen doors	203
Super Blue, non-metallic	402	pine	108	Vent		siding	107
Two-handle lavatory faucet	356	Vacuum		plumbing	370	siding removal	106
Type X gypsum board	243	HEPA	520	soffit	89	siding repair	105
Tyvec suit	518	Valance		Vent channel		single-hung windows	158
Tyvek house wrap	88	cabinet	312, 315	rafter bay	88	soffit	108
U		Valley flashing		Vent kit		Vinyl composition tile	285-286
U.S. Ceramic		aluminum	141	bath	366	Vinyl drywall	
Tile	295, 297-299	roll	143	Vent, roof		outside corner bead	248
UF compression connector		Valspar	468, 471	dormer	144	Vinyl floor tile	284-285
non-metallic	399	ValueTest exhaust fan	362	ridge	144-145	Vinyl floor tile, slip-retardant	285
UF-B sheathed cable	399	ValueTest vertical discharge bath fan	363	T-top exhaust	145	Vinyl flooring	
U-lamp troffer fluorescent fixture	258	ValuSeries		turbine	146	removal	274
Ultra Silent bath fan	363	pointing trowel	287	waterproofing	130	roll	282-283
Ultra Touch	87	Valve lines	358	Vented range hood	336	sheet	282-283
Ultra-Hide		Valves		Ventilation		transition reducer strip	288
alkyd gloss enamel	473	angle	351	attic	83	Vinyl flooring tools	
interior latex eggshell	472	flush, Sloan Royal	351	crawl space	82	roller, extendable	287
interior latex paint	472	toilet, remove & replace	346	roof	83	Vinyl sheet flooring	283
interior paint	472	wall stop	351	Ventilator		Vinyl siding	
Ultrasonic cleaning	510	Vance Industries	327	bath	366	mounting block	96
Undercoater		Vanguard hardwood flooring	276	Ventilator retrofit		trim pieces	96
interior enamel	471	Vanity		heat recovery	386	Vinyl tile	
Undercounter refrigerator	312	Arkansas	359	Ventilators		adhesive	286
Underground cable		Charleston	358	power	92	cutter	287
UF-B sheathed	399	Danville	359	Venting skylights	173	Vinyl tile cutter	287
Underground feeder		Kingston	358	Ventlite doors		Vinyl tileboard molding	264
compression connector		maple	359	fiberglass exterior	201	Vinyl wall base	
non-metallic	399	Monterey	359	steel exterior	199	dryback	288
Underlay, roof	88	oak	358-359	Vents		self-stick	289
Underlayment	140, 279	solid surface sink top	361	attic	91	Vinyl-clad	
cement-based	281	Springfield	358	cedar	90	wood awning windows	160
fast-setting patch	281	Virginia	359	continuous	89	wood casement	
foam	279-280	with drawer	359	dormer	90	windows	160
laminate flooring	279-280	with marble top	361-362	eave	90	wood windows	159
liquid	281			foundation	88		
roof	134			gable	89-90	W	
tile	291			louvered	90	Waferboard	111
tile backerboard	291			redwood	90	Wainscot	
				ridge	90	tile	290
				roof turbine	91	Wainscot paneling	253

544 *National Home Improvement Estimator*

Walkway		Wall tile		hygrometer	498	Watertight conduit hub	410
demolition	32	ceramic	297, 299	insulation	499	Watts Radiant	301
forms	50	Wallboard		paneling	500	Wave bath light fixture	421
Walkway forms	44	demolition	35, 312	plaster	499	Wax	
Walkways		L-trim	248	stucco	499	bowling alley	471
concrete	50	mold resistant	243	wallboard	499	paste	471
Wall		painting	463-464	wallcovering	500	Wax toilet bowl gasket	351
braces	67, 493	primer	246	wood	499	Weather head	412
fireblocks	68	sander	250	Water damage, dryout,		PVC	402
opening, breakthrough	72	texture spray	244	structural drying		Weatherproof blank cover	
plates	67	Wallboard stilts	250	air movers	502	non-metallic	408
straightening	494	Wallcovering		ceilings	502	Weatherproof conduit box	407
tub	347	designer panel	252	hardwood flooring	503	Weatherproof electrical box	
Wall & floor tile		Wall-mount		negative air scrubbers	503	2 gang	407
ceramic	293	sink	353	walls	502	Weatherproof lampholder &	
Wall and ceiling panel		Wall-mount lantern		Water dispenser	329	cover	408
FRP	253	curved glass	423	Water extraction	511	Weatherproofing	88
Wall and ceiling repair	227	Wall-mounted lavatory		carpet	511	Weather-resistant wood	
Wall base		removal	353	hard surface	511	coating	468
molding	280	Walls		Water Extraction	509	WeatherSide siding	113
rubber	288	adding	241	Water hammer	373	Weatherstripping	
self-stick	289	concrete	48	arrestor	387	aluminum, adjustable	196
strip, vinyl	289	demolition	31	Water heater	374	foam	196
thermoplastic	288	painting	460-461, 463-465	100-gallon commercial	385	garage door	223
vinyl	288	partition, adding	265	Ariston	387	magnetic	196
Wall bracing	492	removal	239	bracing	492	vinyl, remove & replace	196
Wall cabinets	313-315	setting with adhesive	290	connection	492	window seal sets	172
end panel	315	setting with mortar	290	electric	386-387	Weco	303
finished	317	staining	465	electric, tankless	387	Welded handy box	404
oak	317	tile	290	EVIR	385	Welded square box	405
square	316	Warming system		gas	385	Welded wire mesh	46
washer dryer	315	ceramic tile floor	301	gas fired	385	Western red cedar	
Wall cavity dryer	519	thermostat	301	gas, tankless	387	siding	108
Wall control switch	366	Wash down		high altitude	385	Westminster Ceramics	296
Wall demolition	32	manhours	447	oil fired	385	Wet location conduit box	
Wall enamel		Washer		point-of-use	387	cover	408
latex satin	472	kitchen sink basket		PowerStream	387	Wet location receptacle cover	
Wall exhaust fan		strainer	329	power-vent	385	GFCI	408
chain-operated	364	Washer dryer wall		propane	385	Wet patch roof cement	135
Wall finish		cabinets	315	propane fired	385	rubber	135
demolition, wet	512	Washing		tall boy	385	Wet-Stick roof cement	135
Wall forms, concrete	44, 48	masonry	115	Water pipe		Wheel glass cutters	171
Wall framing	57	pressure	448	remove & replace	388	Wheel loader	
Wall furnace, gas	384	Washing, paint prep		Water pump	520	rental	29, 40
Wall insulation	80	manhours	447	Water resistant gypsum		Wheelbarrow	520
Wall kit		Waste disposal	30	board	243	Whirlpool bath	
bathtub	347	Watco	468	Water Seal waterproofer	470	heater	347
Wall lantern	423	Water		Water shield	88	Whirlpool tub apron	347
Wall light		blasting	115	Water supply, low water		White cement	114
opal glass	421	extraction	509	pressure	373	White Diamond bowling	
Wall louvers	91	Water Claw	511	Water surge shock		alley wax	471
Wall materials		Water closet		absorber	387	White oak	
ceiling tile	236	flange, cast iron	351	Water table	38	strip flooring	277
drywall	227	toilet	350	Water-based primer	473	White wash pickling stain	468
gypsum wallboard	227	Water damage		Water-based wood stain	468	Whole house fans	91
lath and plaster	227	cleanup	504	Waterblasting		Williamsburg lavatory	
wood paneling	235	contaminated		manhours	448	faucet	356
Wall oven	335	floodwater	496	masonry	115	Wilsonart counters	318
double	335	dryout	495	Waterborne sanding		Wind clips	140
Wall paint	472	restorative drying	495	sealer	469	Window	
eggshell	472	Water damage and mold		Waterfall kitchen faucet	326	demolition, wet	514
latex	472	remediation	495	Waterproof		drip cap	141
Wall plate		insurance coverage	495	concrete & masonry	475	framing	69
coaxial cable	413	(OSHA)	496	WaterSeal	470	screen	168
decorator phone	413	personal protective		Waterproofing	470	straighten opening	494
single gang Decora	415	gear	496	masonry walls	130	Window bolt	
single gang plastic	415	Water damage, dryout		material	135	double-hung	166
Wall registers,		air movers	498	membrane	301	Window glass	
installation	377	basement	500	metal roof	135	remove & replace	170
Wall stop	351	concrete block	500	paint, elastomeric	474	Window grille systems	169
Wall surround kit		dehumidifiers	498	paper	88	Window guards	167
bathtub	347	dessicants	498	roof vent	130	Window locks	
tub	347	electric system	501	roof, remove & replace	130	flip lock	171
Wall texture		floor cover	500	roof, repair	129	key, sliding	171
Sand-Texture	473	floors	500	sealer	475	thumbscrew bar	171
		gas and oil appliances	501	wood protector	470		

Window mullions	166	fixed aluminum	162	Wire brush	51	touch-up	274
Window openings		fixed octagonal	163	Wire mesh, welded	46	trim	275
closure, masonry wall ...	156	garden	158	Wireless door bell	416	Wood paneling trim pack ...	252
closure, wood frame	156	glass setting labor	170	Wiring residences		Wood preservative	
cut new	156	glazing putty		adding outlets and			443, 470-471
Window operators		replacement	150	switches	394	copper	471
awning	166	grille sets, tilt sash	169	aluminum wiring	391	Termin-8	470
jalousie	166	heat loss and gain	147	ground wire	393	Wood protector	
Window painting		jalousie	159, 163	knob and tube wiring	391	clear	470
labor	466-467	louvered, aluminum	163	low voltage wiring	394	Wood shingle	
Window roof covers, bay ...	164	Low-E glass	147	non-metallic sheathed		patch	137
Window roofs	164-165	measure & cut glass	170	cable (Romex)	392	Wood siding	
Window screens	160	modern	147	smoke detectors	396	bevel	93
patch	168	octagonal, wood	163	Wonderboard tile		board and batten	98
spline	168	picture	162	backerboard	291	bungalow	93
Window shutters	167	removal	36, 156	Wood		clapboard	93
Window sill	165	replacement ...	155, 157-158	shakes	137	decay	93
ceramic	297	sash repair	151, 156	shingles	137	horizontal	97
Window trim		sash springs	166	siding removal	106	horizontal patterns	97
bath wall	347	sill, ceramic	297	Wood bleach kit	467	lap	93
Window wrap	141	size, reducing	156	Wood coating		moisture damage	93
Windows		storm	149, 165	weather-resistant	468	painting	93
adding or moving	153	trim removal	156	Wood conditioner	471	repair	93
aluminum	148	vinyl bay	158	Wood deck		vertical	97
aluminum single		vinyl custom	157	patch built-up roofing	132	vertical patterns	97
hung	160-161	vinyl double hung	157	staining	455	vertical tongue and	
aluminum sliding	161-162	vinyl garden	158	Wood doors		groove	97
aluminum, horizontal ...	161	vinyl hopper	159	entry	193	Wood stain	
awning	160	vinyl jalousie	159	screen	203	water-based	468
awning, aluminum	162	vinyl single hung	158	screen, installation	202	Wood toilet seat	352
bay	158	vinyl, replacement	157	screen, remove &		Wood treatment	470
bay, angle	164	vinyl-clad awning	160	replace	202	Wood window repair	149
building codes	148	vinyl-clad casement	160	Wood filler		Wood-burning furnace	384
casement	160	vinyl-clad		acrylic	277	Woodcore storm doors ...	205
casement bay	158	double- hung	159-160	Wood finish	467	Wool carpet	304
casement bow	164	vinyl-clad wood	159	penetrating	467	Wrap	
caulk	157	weatherstripping	172	Wood flooring	277	window	141
caulk removal	157	wood	147	adhesive	278		
circular, vinyl	159	wood, repair	149	hardwood	268		
counterweighted	152	wood, replacement	156	installation tools	277		
cut new opening	156	Wire		lamine	270		
double-hung	157, 163	bell	413	plank	276		
egress window	172	screen	438	softwood	268		
energy-efficiency		speaker	413	strip	268		
standards	148	thermostat cable	413	strips	275		
escape wells	172	type THHN copper	412	tile	278		
		UF cable	399				

X - Y - Z

X type gypsum board	243
Zinsser	470
ZPW clear wood	
preservative	471

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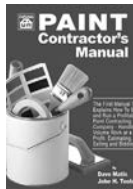
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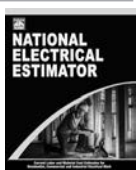


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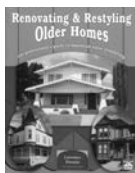
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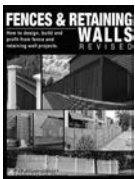
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