Construction Cost Estimating

Jan. 18, 2019



OFFICES

CALIFORNIA License #713760

949-240-9971

905 Calle Amanecer, Suite 250
San Clemente, CA 92673

OREGON License #173960

503-660-8670

14255 SW Galbreath Dr., Suite B
Sherwood, OR 97140

GENERAL INQUIRY

info@petefowler.com
www.petefowler.com

Pete Fowler
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Services, Inc.

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Construction Cost Estimating

INTRODUCTION

Part 1: Understanding and Evaluating Construction Estimates

Understanding and evaluating construction estimates is for everyone who deals with buildings or construction. Construction projects are VERY expensive (most people spend 20-50% of their income on their residence), and yet so few people have the skill to analyze the fairness and value of construction costs. Therefore, being able to understand, summarize and analyze construction costs is a very skill that can save or make lots of money.

Construction cost estimating is a profession with specialized skills, training, education, and certifications; but it's not rocket science. And there is some math, so it's scary to a LOT of people. There are a lot of moving parts in a big construction cost estimate: designers, insurance, labor, materials, equipment, subcontractors... The list can go on and on.

Part 2: Budgeting and Estimating

The process begins with deciding on the level of detail and exactitude required. It continues with deciding on and organizing the elements that will be included in the estimate, so that the scope of work and methods of construction can be documented and easily referenced, summarized and understood. Application of prices to the scope and method of construction is next. Ultimately an estimator will format, coordinate peer review, finalize and publish the completed estimate. And often the estimator or another professional will summarize, analyze or compare budgets and estimates for the purpose of quality decision-making.

Updated 12/2018

PROGRAM OUTLINE

Understanding & Evaluating Construction Cost Estimates

1. Introduction
2. How Do You Know?
3. Detailed Analysis
4. Burden
5. Match Game
6. Xactimate

Budgeting & Estimating for Construction, Maintenance, Repairs & Claims

7. Order of Magnitude (PFCS Level 1)
8. Putting It All Together
9. Conceptual & Preliminary (PFCS Levels 2-3)
10. Detailed & Bid/Construction/Trial (PFCS Levels 4-5)
11. Conclusion

LEARNING OBJECTIVES

1. Understand the principles and tools of estimating.
2. Explore the process of estimating.
3. Budget and estimate for construction, maintenance, repairs and claims.
4. Examine different estimate levels, including order of magnitude, conceptual, preliminary, detailed and bid/construction.
5. Consider case studies and examine real world examples of construction cost estimates.

BACKUP MATERIALS

1. Level 5 Estimating
2A. Estimate Summary & Estimate Detail Page
2B. Estimate Backup Samples
3A. Estimate (by Others) for Analysis #1
3B. Estimate Analysis & Memo (of #1)
3C. Estimate Analysis Worksheet
4A. Estimate to Demonstrate Burden Calculations
5A. Estimate (by Others) for Analysis #2
5B. Estimate Comparison
5C. Comparison of Multiple Estimates
5D. Estimate Comparison Worksheet
6A. Xactimate Estimate (by Others) for Analysis #3 (Analyzed in Section 3)
6B. Xactimate Discussion Memo
7A. Order of Magnitude (Level 1) Estimate
7B. Blank Estimate Worksheets
8A. Uniformat Codes
8B. Detailed Estimate (Level 5) w Many Components
9. Conceptual Estimate for a $222 Million Hotel
10A. Sample Estimate: Siding Repair on a Hotel
10B. Sample Estimate: Construction Defect Repairs on Condos
11C. A List of Awesome Estimating Articles

PROGRAM CONTENTS

Understanding & Evaluating Construction Cost Estimates

1. Introduction
    - A. We Know Buildings
    - B. Project Types
    - C. Clients
    - D. Program Outline
    - E. Learning Objectives
    - F. Program Introduction
2. How Do You Know?
    - A. Time Spent on Summary & Analysis
    - B. Explain It to My Mom
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    - E. Keep Asking
    - F. Show Your Work!
    - G. Case Study
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    - A. Thinking Scientifically
    - B. Estimating Errors
    - C. Estimating Basics
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    - E. Indirect Construction Costs
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    - G. If You Can't Explain It Simply
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    - A. What's Burden Include?
    - B. Burden Calculations
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5. Match Game
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    - B. A Sensible List
    - C. "Normalizing"
    - D. Case Study
6. Xactimate
    - A. Insurance Industry Standards
    - B. Certification
    - C. Pros
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    - E. PFCS Position

Budgeting & Estimating for Construction, Maintenance, Repairs & Claims

7. Order of Magnitude (PFCS Level 1)
    - A. Case Study: Otto's Outhouse
    - B. Level 1: 10 Steps
    - C. Case Study: Order of Magnitude
    - D. Case Study: Commercial
    - E. Your Room Using Uniformat
8. Putting It All Together
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    - C. Decide on the Level of Detail
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    - G. Resources
    - H. Estimate Backup
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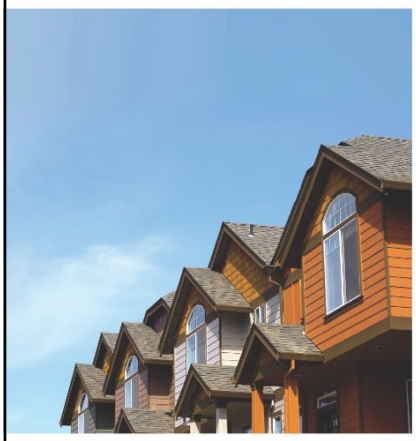
    - A. Level 2 & Level 3: 10 Steps
    - B. Level 2 + Estimating
    - C. Using the Estimate Components
    - D. Estimate Details
    - E. Quantity Take-Off (QTO)
    - F. Case Study: Otto's Outhouse
    - G. Case Study: Hotel Bid
10. Detailed & Bid/Construction/Trial (PFCS Levels 4-5)
    - A. Detailed Estimate
    - B. Level 4 & Level 5: 10 Steps
    - C. Detailed Estimating
    - D. Refine the Estimate
    - E. Peer Review
    - F. Case Studies
11. Conclusion
    - A. Estimating is a Skill and Profession
    - B. Estimator Certification
    - C. Learning Objectives
    - D. Backup Materials

Construction Cost Estimating





CA 949.240.9971
OR 503.660.8670
TX 469.677.8710

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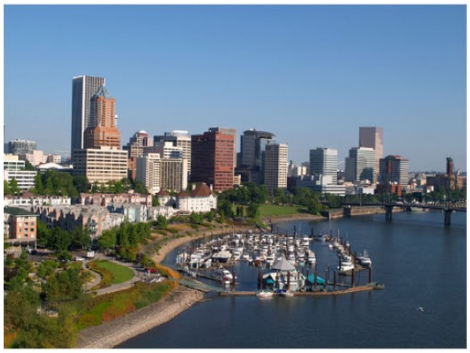
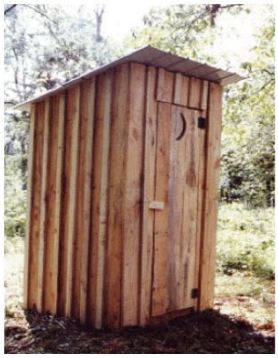
Project Types





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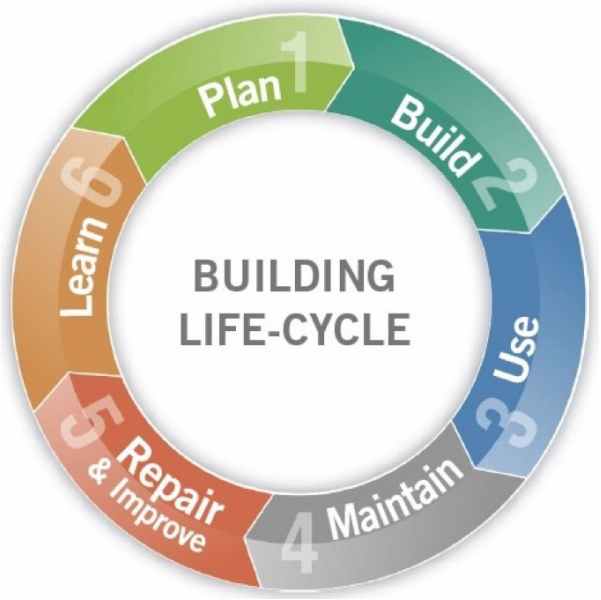
Clients



1. LAWYERS
2. INSURERS
3. PROPERTY OWNERS & MANAGERS
4. FINANCIAL INSTITUTIONS INCLUDING LENDERS
5. BUILDERS, DEVELOPERS AND CONSTRUCTION CONTRACTORS
6. PRODUCT MANUFACTURERS AND SUPPLIERS
7. GOVERNMENT

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Program Outline

MORNING

1. Introduction
2. How Do You Know?
3. Detailed Analysis
4. Burden
5. Match Game
6. Xactimate

AFTERNOON

7. Order of Magnitude (PFCS Level 1)
8. Putting It All Together
9. Conceptual & Preliminary (PFCS Level 2-3)
10. Detailed & Bid/Construction/Trial (PFCS Level 4-5)
11. Conclusion



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1. INTRODUCTION



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Pete Fowler

CONNECT WITH PETE

Call 949.240.9971

Email pf@petefowler.com

Find him on LinkedIn!

Read about industry impacts on our blog at www.petefowler.com

9



Mike Villalba

CONNECT WITH MIKE

Call 503.660.8670

Email mm@petefowler.com

Find him on LinkedIn!

10



Ron Svarc

CONNECT WITH RON

Call 503.660.8670

Email ron.svarc@petefowler.com

Find him on LinkedIn!

Read about industry impacts on our blog at www.petefowler.com

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1. INTRODUCTION

Backup Materials

- **Part 1: Understanding & Evaluating Cost Estimates**
  - Level 5 Estimating
  - Estimate Summary and Estimate Detail Page
  - Estimate Backup Samples
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  - Comparison of Multiple Estimates
  - Estimate Comparison Worksheet
  - Xactimate Estimate (by Others) for Analysis #3
  - Xactimate Discussion Memo

Backup Materials

- **Part 2: Budgeting and Estimating**
  - Order of Magnitude (Level 1) Estimate
  - Blank Estimate Worksheets
  - Uniformat Codes
  - Detailed Estimate (Level 5) w Many Components
  - Conceptual Estimate for a $222 Million Hotel
  - Sample Estimate: Siding Repair on a Hotel
  - Sample Estimate: Construction Defect Repairs on Condos
  - A List of Awesome Estimating Articles

Learning Objectives

- **Part 1: Understand & Evaluating Cost Estimates**
  - Understand how to summarize a construction cost estimate.
  - Understand the basics of estimate analysis.
  - Learn what project and labor burden are.
  - Discuss the power and dangers of Xactimate.
  - Review some case studies and real-world examples of construction cost estimate summary & analysis.

Learning Objectives

- **Part 2: Budgeting and Estimating**
  - Understand the fundamentals of estimating
  - Orientation to estimate components
  - PFCS 5 Levels – 10 steps of estimating
  - Introduction to analysis of estimates and construction costs

Part 1 Introduction

WHY THIS IS IMPORTANT

Understanding & Evaluating Construction Estimates is for everyone who deals with buildings or construction (and that's a LOT of people).

Construction projects are VERY expensive (most people spend 20-50% of their income just on the building they live in), and yet so few people have the skill to analyze the fairness and value of construction costs.

Therefore, being able to understand, summarize and analyze construction costs is a very valuable skill that can save or make lots of money.



Level 5 Estimating

5 Levels - 10 Steps

		Level 1	Level 2	Level 3	Level 4	Level 5
Line	**Steps**	**Order of Magnitude**	**Conceptual**	**Preliminary**	**Detailed**	**Bid / Construction / Trial**
1	Format	Summary Sheet Only	Add capital letters (or numbers if L1 are letters) with 2 to 15 items under each of the main categories	Conform with the WBS rules: Main Category, then capital letters or numbers, then alternate with each new level.	See PFCS Samples for deeper and deeper levels. Conform to rules of WBS.	Final Pass for clarity and ease of making references and following all of the component parts.
2	Scope	A Level 1 Work Breakdown Structure (WBS): 1 paragraph to 1 page. There are only basic quantities (no real QTO) in approximate figures	Add details with 2-10 categories each with letters and CSI codes. Basic QTO on main items (SF, FA, LF, etc.) Usually not calculated units like Cubic Yards (CY)	Level 3 WBS with letters, numbers, and CSI codes. More detailed QTO.	Complete, detailed QTO.	Final Pass. Check QTO on key items.
3	Time/Labor	Little or no breakdown of labor / time in this step	Rough Estimate, Typical crews, Round numbers, slightly over estimating. No calls	Productivity rates, Use Walker's book on big #'s	Use Walker's Labor Rates	Final Pass
4	Material	A guesstimate. Little QTO, Quantities only - not cost of materials. Assembly level estimates at the most	QTO, Rough Estimate, Slightly over estimating. Books only for big #.'s, NO calls unless faster than book	Calls, Books, Maybe Alternatives	Calls, Bids, Alternatives refined	Final Pass
5	Equipment	WAG. Often none	Rough Estimate. No Calls	Calls, Books	Calls, Books, Bids	Final Pass
6	Subs	Unit prices, WAG, Use books only on BIG #'s	Books, NO calls	Some Calls	Lots of Calls, Maybe send info, Maybe Bids	Final Pass
7	GC's	% of Direct Cost	Reconsider % or Amount	Reconsider % or Amount	Broken Down	Same as L4
8	OH	% of Direct Cost	Reconsider % or Amount	Reconsider % or Amount	Possibly Broken Down	Same as L4
9	Profit	% of Direct Cost	Reconsider % or Amount	Reconsider % or Amount	Reconsider % or Amount	Reconsider % or Amount
10	Non-Construction	WAG	SWAG	More Support	More Support	Calls/Bids
11	Time:	1-4 Hours	2-24 Hours	16-100 Hours	50-200 Hours	100+ Hours

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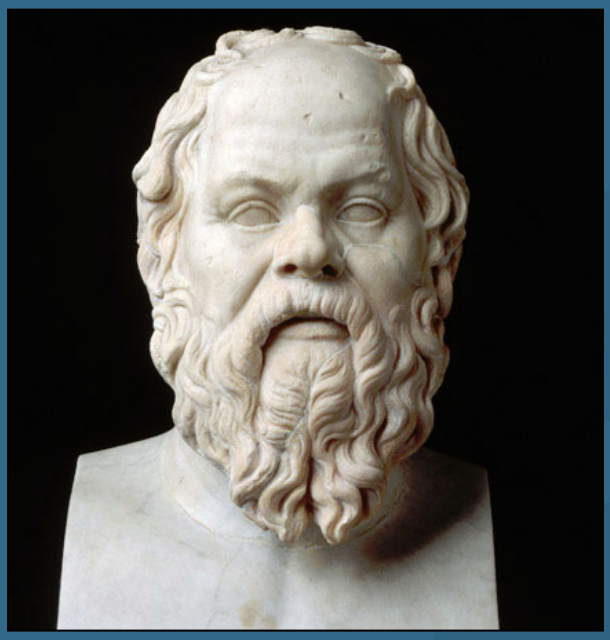
2. HOW DO YOU KNOW?



"I know that I am intelligent, because I know that I know nothing."

-Socrates

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2. HOW DO YOU KNOW?

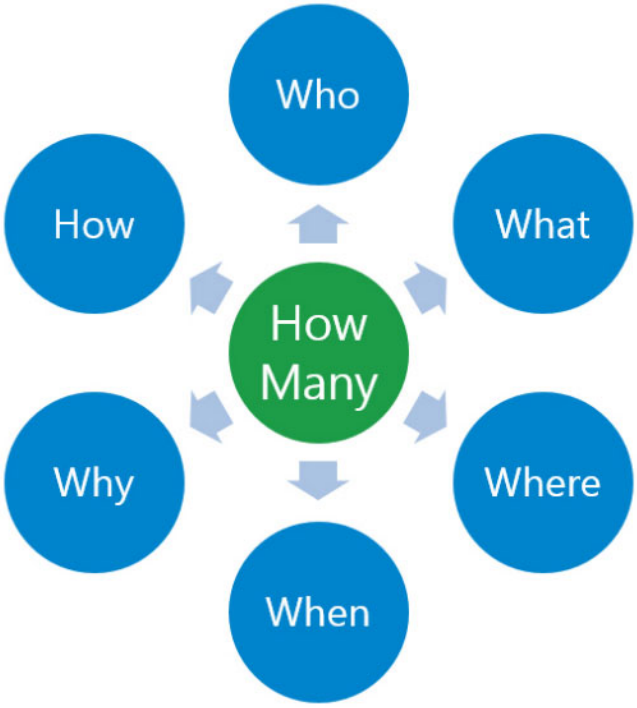
Time Spent on Summary & Analysis

- 5 minutes
- 1 hour
- 8 hours
- 40 hours



2. HOW DO YOU KNOW?

Explain It To My Mom



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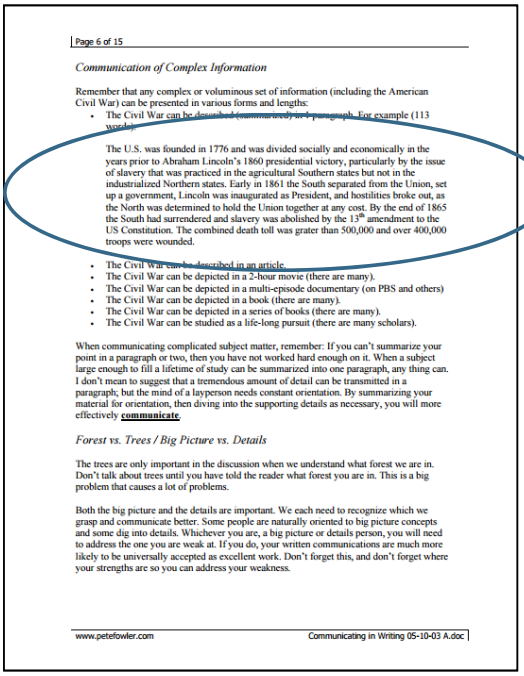
2. HOW DO YOU KNOW?

Estimate Summary

- Does it make sense?
- Magical Number 7
- What does this mean?



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Communication of Complex Information

Remember that any complex or voluminous set of information (including the American Civil War) can be presented in various forms and lengths:

- The Civil War can be described [illegible] in 1 paragraph. For example (113 words):

  The U.S. was founded in 1776 and was divided socially and economically in the years prior to Abraham Lincoln's 1860 presidential victory, particularly by the issue of slavery that was practiced in the agricultural Southern states but not in the industrialized Northern states. Early in 1861 the South separated from the Union, set up a government, Lincoln was inaugurated as President, and hostilities broke out, as the North was determined to hold the Union together at any cost. By the end of 1865 the South had surrendered and slavery was abolished by the 13th amendment to the US Constitution. The combined death toll was grater than 500,000 and over 400,000 troops were wounded.

- The Civil War can be described in an article.
- The Civil War can be depicted in a 2-hour movie (there are many).
- The Civil War can be depicted in a multi-episode documentary (on PBS and others)
- The Civil War can be depicted in a book (there are many).
- The Civil War can be depicted in a series of books (there are many).
- The Civil War can be studied as a life-long pursuit (there are many scholars).

When communicating complicated subject matter, remember: If you can't summarize your point in a paragraph or two, then you have not worked hard enough on it. When a subject large enough to fill a lifetime of study can be summarized into one paragraph, any thing can. I don't mean to suggest that a tremendous amount of detail can be transmitted in a paragraph, but the mind of a layperson needs constant orientation. By summarizing your material for orientation, then diving into the supporting details as necessary, you will more effectively **communicate**.

Forest vs. Trees / Big Picture vs. Details

The trees are only important in the discussion when we understand what forest we are in. Don't talk about trees until you have told the reader what forest you are in. This is a big problem that causes a lot of problems.

Both the big picture and the details are important. We each need to recognize which we grasp and communicate better. Some people are naturally oriented to big picture concepts and some dig into details. Whichever you are, a big picture or details person, you will need to address the one you are weak at. If you do, your written communications are much more likely to be universally accepted as excellent work. Don't forget this, and don't forget where your strengths are so you can address your weakness.

www.petefowler.com Communicating in Writing 05-10-03 A.doc

2. HOW DO YOU KNOW?

Level 5 Estimating Analysis

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Level 5 Estimating

5 Levels - 10 Steps

3/10/2009

Line	Steps	Level 1 Order of Magnitude	Level 2 Conceptual	Level 3 Preliminary	Level 4 Detailed	Level 5 Bid / Construction / Trial
1	Format	Summary Sheet Only	Add capital letters (or numbers if L1 are letters) with 2 to 15 items under each of the main categories	Conform with the WBS rules: Main Category, then capital letters or numbers, then alternate with each new level.	See PFCS Samples for deeper and deeper levels. Conform to rules of WBS.	Final Pass for clarity and ease of making references and following all of the component parts.
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8	OH	% of Direct Cost	Reconsider % or Amount	Reconsider % or Amount	Possibly Broken Down	Same as L4
9	Profit	% of Direct Cost	Reconsider % or Amount	Reconsider % or Amount	Reconsider % or Amount	Reconsider % or Amount
10	Non-Construction	WAG	SWAG	More Support	More Support	Calls/Bids
11	Time:	1-4 Hours	2-24 Hours	16-100 Hours	50-200 Hours	100+ Hours

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Estimating Levels of Analysis 09-03-09 F.xls

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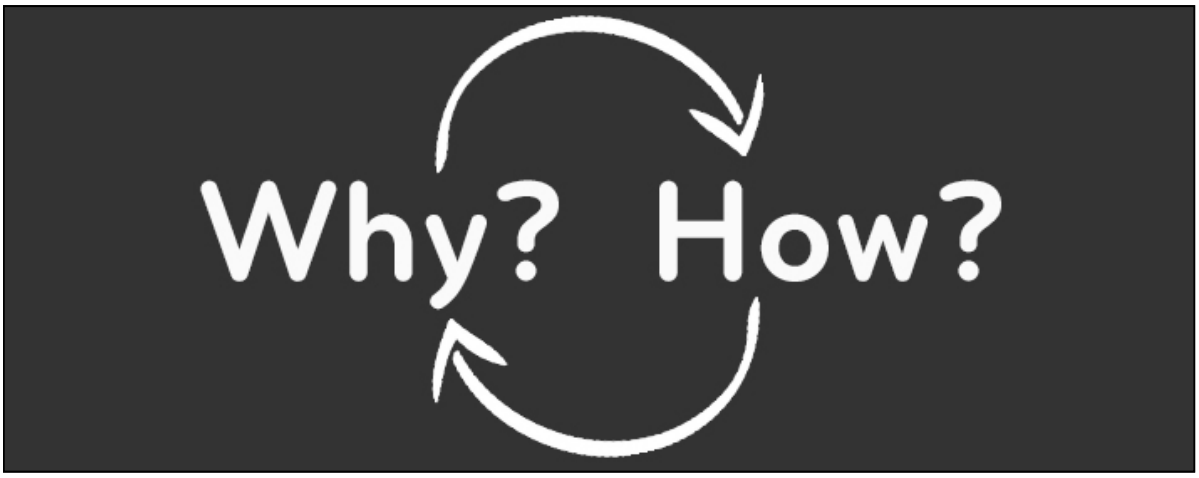
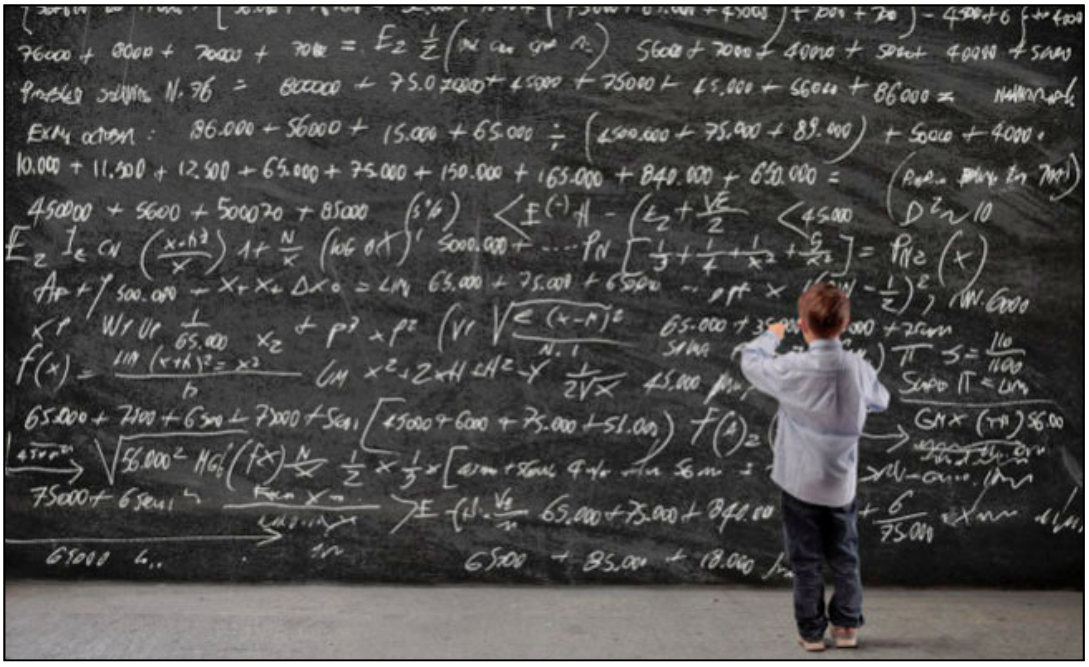
2. HOW DO YOU KNOW?

Keep Asking “Why” or “How do you know?”



2. HOW DO YOU KNOW?

Show Your Work!



2. HOW DO YOU KNOW?

Case Study: The Project



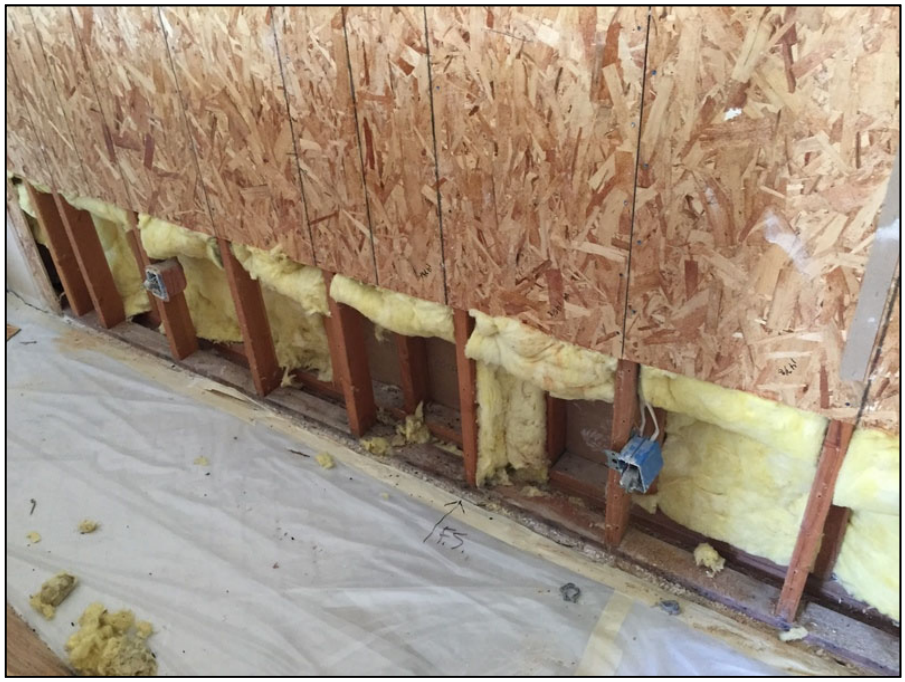
2. HOW DO YOU KNOW?

Case Study: The Problem



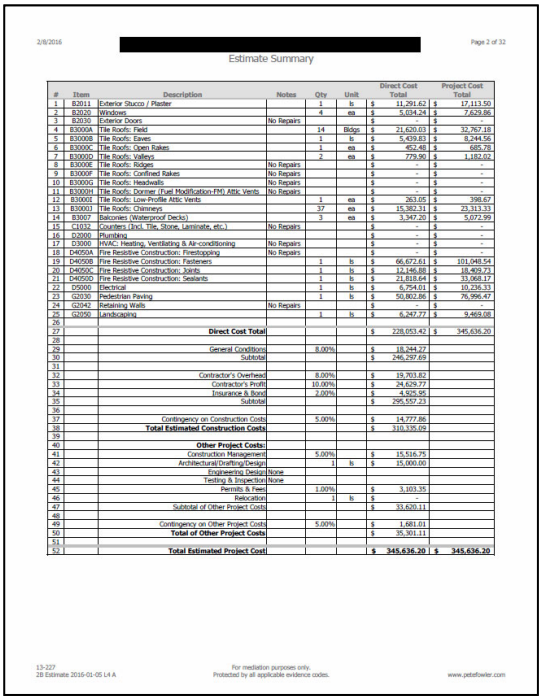
2. HOW DO YOU KNOW?

Case Study: The Problem



2. HOW DO YOU KNOW?

Case Study: The Solution



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Estimate Summary

#	Item	Description	Notes	Qty	Unit	Direct Cost Total	Project Cost Total
1	B2011	Exterior Stucco / Plaster		1	ls	$ 11,291.62	$ 17,113.50
2	B2020	Windows		4	ea	$ 5,034.24	$ 7,629.86
3	B2030	Exterior Doors	No Repairs			$ -	$ -
4	B3000A	Tile Roofs: Field		14	Bldgs	$ 21,620.03	$ 32,767.18
5	B3000B	Tile Roofs: Eaves		1	ls	$ 5,439.83	$ 8,244.56
6	B3000C	Tile Roofs: Open Rakes		1	ea	$ 452.48	$ 685.78
7	B3000D	Tile Roofs: Valleys		2	ea	$ 779.90	$ 1,182.02
8	B3000E	Tile Roofs: Ridges	No Repairs			$ -	$ -
9	B3000F	Tile Roofs: Confined Rakes	No Repairs			$ -	$ -
10	B3000G	Tile Roofs: Headwalls	No Repairs			$ -	$ -
11	B3000H	Tile Roofs: Dormer (Fuel Modification-FM) Attic Vents	No Repairs			$ -	$ -
12	B3000I	Tile Roofs: Low-Profile Attic Vents		1	ea	$ 263.05	$ 398.67
13	B3000J	Tile Roofs: Chimneys		37	ea	$ 15,382.31	$ 23,313.33
14	B3007	Balconies (Waterproof Decks)		3	ea	$ 3,347.20	$ 5,072.99
15	C1032	Counters (Incl. Tile, Stone, Laminate, etc.)	No Repairs			$ -	$ -
16	D2000	Plumbing				$ -	$ -
17	D3000	HVAC: Heating, Ventilating & Air-conditioning	No Repairs			$ -	$ -
18	D4050A	Fire Resistive Construction: Firestopping	No Repairs			$ -	$ -
19	D4050B	Fire Resistive Construction: Fasteners		1	ls	$ 66,672.61	$ 101,048.54
20	D4050C	Fire Resistive Construction: Joints		1	ls	$ 12,146.88	$ 18,409.71
21	D4050D	Fire Resistive Construction: Sealants		1	ls	$ 21,818.64	$ 33,068.17
22	D5000	Electrical		1	ls	$ 6,754.01	$ 10,236.33
23	G2030	Pedestrian Paving		1	ls	$ 50,802.86	$ 76,996.47
24	G2042	Retaining Walls	No Repairs	-		$ -	$ -
25	G2050	Landscaping		1	ls	$ 6,247.77	$ 9,469.08
26							
27		**Direct Cost Total**				$ 228,053.42	$ 345,636.20
28							
29		General Conditions		8.00%		$ 18,244.27	
30		Subtotal				$ 246,297.69	
31							
32		Contractor's Overhead		8.00%		$ 19,703.82	
33		Contractor's Profit		10.00%		$ 24,629.77	
34		Insurance & Bond		2.00%		$ 4,925.95	
35		Subtotal				$ 295,557.23	
36							
37		Contingency on Construction Costs		5.00%		$ 14,777.86	
38		**Total Estimated Construction Costs**				$ 310,335.09	
39							
40		**Other Project Costs:**					
41		Construction Management		5.00%		$ 15,516.75	
42		Architectural/Drafting/Design		1	ls	$ 15,000.00	
43		Engineering Design	None				
44		Testing & Inspection	None				
45		Permits & Fees		1.00%		$ 3,103.35	
46		Relocation		1	ls	$ -	
47		Subtotal of Other Project Costs				$ 33,620.11	
48							
49		Contingency on Other Project Costs		5.00%		$ 1,681.01	
50		**Total of Other Project Costs**				$ 35,301.11	
51							
52		**Total Estimated Project Cost**				**$ 345,636.20**	**$ 345,636.20**

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2B Estimate 2016-01-05 L4 A

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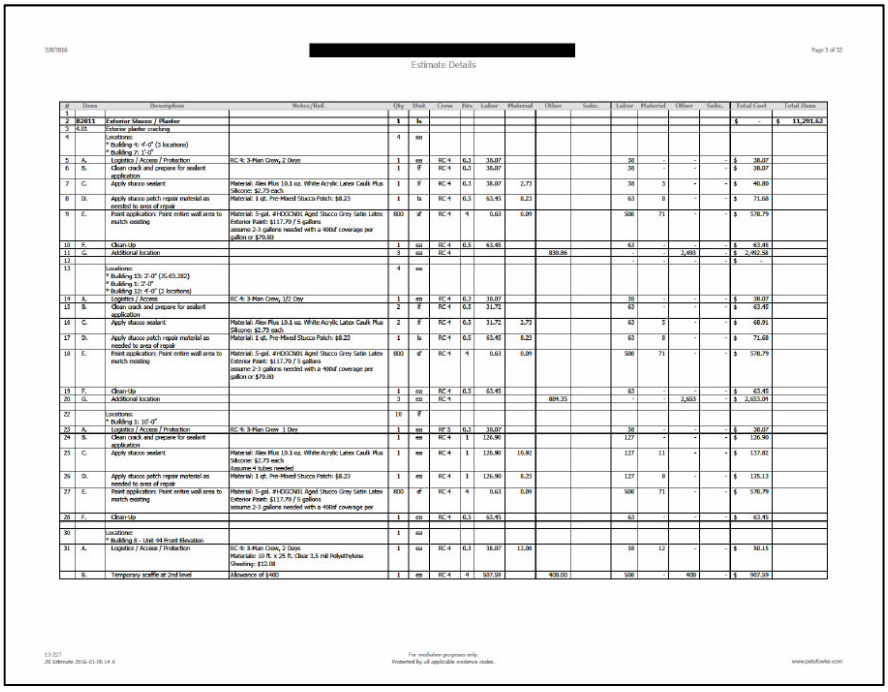
2. HOW DO YOU KNOW?

Case Study: The Solution



2/8/2016 [redacted] Page 3 of 32

Estimate Details

#	Item	Description	Notes/Ref.	Qty	Unit	Crew	Hrs	Labor	Material	Other	Subc.	Labor	Material	Other	Subc.	Total Cost	Total Item
1																	
2	82011	Exterior Stucco / Plaster		1	ls											$ -	$ 11,291.62
3	4.01	Exterior plaster cracking															
4		Locations: * Building 4: 4'-0" (3 locations) * Building 7: 1'-0"		4	ea												
5	A.	Logistics / Access / Protection	RC-4: 3-Man Crew, 2 Days	1	ea	RC-4	6.3	38.07				38	-	-	-	$ 38.07	
6	B.	Clean crack and prepare for sealant application		1	lf	RC-4	0.3	38.07				38	-	-	-	$ 38.07	
7	C.	Apply stucco sealant	Material: Alex Plus 10.1 oz. White Acrylic Latex Caulk Plus Silicone: $2.73 each.	1	lf	RC-4	0.3	38.07	2.73			38	3	-	-	$ 40.80	
8	D.	Apply stucco patch repair material as needed to area of repair	Material: 1 qt. Pre-Mixed Stucco Patch: $8.23	1	ls	RC-4	0.5	63.45	8.23			63	8	-	-	$ 71.68	
9	E.	Paint application: Paint entire wall area to match existing	Material: 5-gal. #HDGCN01 Aged Stucco Grey Satin Latex Exterior Paint: $117.79 / 5 gallons assume 2-3 gallons needed with a 400sf coverage per gallon or $79.80	800	sf	RC-4	4	0.63	0.09			500	71	-	-	$ 578.79	
10	F.	Clean-Up		1	ea	RC-4	0.5	63.45				63	-	-	-	$ 63.45	
11	G.	Additional location		3	ea	RC-4				830.85		-	-	2,492	-	$ 2,492.58	
12												-	-	-	-	$ -	
13		Locations: * Building 13: 2'-0" (X-40.382) * Building 1: 2'-0" * Building 12: 4'-0" (2 locations)		4	ea												
14	A.	Logistics / Access	RC-4: 3-Man Crew, 1/2 Day	1	ea	RC-4	0.3	38.07				38	-	-	-	$ 38.07	
15	B.	Clean crack and prepare for sealant application		2	lf	RC-4	0.5	31.72				63	-	-	-	$ 63.45	
16	C.	Apply stucco sealant	Material: Alex Plus 10.1 oz. White Acrylic Latex Caulk Plus Silicone: $2.73 each	2	lf	RC-4	0.5	31.72	2.73			63	5	-	-	$ 68.91	
17	D.	Apply stucco patch repair material as needed to area of repair	Material: 1 qt. Pre-Mixed Stucco Patch: $8.23	1	ls	RC-4	0.5	63.45	8.23			63	8	-	-	$ 71.68	
18	E.	Paint application: Paint entire wall area to match existing	Material: 5-gal. #HDGCN01 Aged Stucco Grey Satin Latex Exterior Paint: $117.79 / 5 gallons assume 2-3 gallons needed with a 400sf coverage per gallon or $79.80	800	sf	RC-4	4	0.63	0.09			500	71	-	-	$ 578.79	
19	F.	Clean-Up		1	ea	RC-4	0.5	63.45				63	-	-	-	$ 63.45	
20	G.	Additional location		3	ea	RC-4				884.35		-	-	2,653	-	$ 2,653.04	
22		Locations: * Building 1: 10'-0"		10	lf												
23	A.	Logistics / Access / Protection	RC-4: 3-Man Crew 1 Day	1	ea	RP-3	0.3	38.07				38	-	-	-	$ 38.07	
24	B.	Clean crack and prepare for sealant application		1	ea	RC-4	1	126.90				127	-	-	-	$ 126.90	
25	C.	Apply stucco sealant	Material: Alex Plus 10.1 oz. White Acrylic Latex Caulk Plus Silicone: $2.73 each Assume 4 tubes needed	1	ea	RC-4	1	126.90	10.92			127	11	-	-	$ 137.82	
26	D.	Apply stucco patch repair material as needed to area of repair	Material: 1 qt. Pre-Mixed Stucco Patch: $8.23	1	ea	RC-4	1	126.90	8.23			127	8	-	-	$ 135.13	
27	E.	Paint application: Paint entire wall area to match existing	Material: 5-gal. #HDGCN01 Aged Stucco Grey Satin Latex Exterior Paint: $117.79 / 5 gallons assume 2-3 gallons needed with a 400sf coverage per	800	sf	RC-4	4	0.63	0.09			500	71	-	-	$ 578.79	
28	F.	Clean-Up		1	ea	RC-4	0.5	63.45				63	-	-	-	$ 63.45	
30		Locations: * Building B - Unit 04 Front Elevation		1	ea												
31	A.	Logistics / Access / Protection	RC-4: 3-Man Crew, 2 Days Materials: 10 ft. x 25 ft. Clear 3.5 mil Polyethylene Sheeting: $12.08	1	ea	RC-4	0.3	38.07	12.08			38	12	-	-	$ 50.15	
	B.	Temporary scaffe at 2nd level	Allowance of $400	1	ea	RC-4	4	507.59		400.00		508	-	400	-	$ 907.59	

12-227
20 Estimate 2016-01-05 LK A

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Estimate Summary

#	Item	Description	Notes	Qty	Unit	Direct Cost Total	Project Cost Total
1	B2011	Exterior Stucco / Plaster		1	ls	$ 11,291.62	$ 17,113.50
2	B2020	Windows		4	ea	$ 5,034.24	$ 7,629.86
3	B2030	Exterior Doors	No Repairs			$ -	$ -
4	B3000A	Tile Roofs: Field		14	Bldgs	$ 21,620.03	$ 32,767.18
5	B3000B	Tile Roofs: Eaves		1	ls	$ 5,439.83	$ 8,244.56
6	B3000C	Tile Roofs: Open Rakes		1	ea	$ 452.48	$ 685.78
7	B3000D	Tile Roofs: Valleys		2	ea	$ 779.90	$ 1,182.02
8	B3000E	Tile Roofs: Ridges	No Repairs			$ -	$ -
9	B3000F	Tile Roofs: Confined Rakes	No Repairs			$ -	$ -
10	B3000G	Tile Roofs: Headwalls	No Repairs			$ -	$ -
11	B3000H	Tile Roofs: Dormer (Fuel Modification-FM) Attic Vents	No Repairs			$ -	$ -
12	B3000I	Tile Roofs: Low-Profile Attic Vents		1	ea	$ 263.05	$ 398.67
13	B3000J	Tile Roofs: Chimneys		37	ea	$ 15,382.31	$ 23,313.33
14	B3007	Balconies (Waterproof Decks)		3	ea	$ 3,347.20	$ 5,072.99
15	C1032	Counters (Incl. Tile, Stone, Laminate, etc.)	No Repairs			$ -	$ -
16	D2000	Plumbing				$ -	$ -
17	D3000	HVAC: Heating, Ventilating & Air-conditioning	No Repairs			$ -	$ -
18	D4050A	Fire Resistive Construction: Firestopping	No Repairs			$ -	$ -
19	D4050B	Fire Resistive Construction: Fasteners		1	ls	$ 66,672.61	$ 101,048.54
20	D4050C	Fire Resistive Construction: Joints		1	ls	$ 12,146.88	$ 18,409.73
21	D4050D	Fire Resistive Construction: Sealants		1	ls	$ 21,818.64	$ 33,068.17
22	D5000	Electrical		1	ls	$ 6,754.01	$ 10,236.33
23	G2030	Pedestrian Paving		1	ls	$ 50,802.86	$ 76,996.47
24	G2042	Retaining Walls	No Repairs			$ -	$ -
25	G2050	Landscaping		1	ls	$ 6,247.77	$ 9,469.08
26							
27		**Direct Cost Total**				$ 228,053.42	$ 345,636.20
28							
29		General Conditions		8.00%		$ 18,244.27	
30		Subtotal				$ 246,297.69	
31							
32		Contractor's Overhead		8.00%		$ 19,703.82	
33		Contractor's Profit		10.00%		$ 24,629.77	
34		Insurance & Bond		2.00%		$ 4,925.95	
35		Subtotal				$ 295,557.23	
36							
37		Contingency on Construction Costs		5.00%		$ 14,777.86	
38		**Total Estimated Construction Costs**				$ 310,335.09	
39							
40		**Other Project Costs:**					
41		Construction Management		5.00%		$ 15,516.75	
42		Architectural/Drafting/Design		1	ls	$ 15,000.00	
43		Engineering Design	None				
44		Testing & Inspection	None				
45		Permits & Fees		1.00%		$ 3,103.35	
46		Relocation		1	ls	$ -	
47		Subtotal of Other Project Costs				$ 33,620.11	
48							
49		Contingency on Other Project Costs		5.00%		$ 1,681.01	
50		**Total of Other Project Costs**				$ 35,301.11	
51							
52		**Total Estimated Project Cost**				**$ 345,636.20**	**$ 345,636.20**

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Estimate Details

#	Item	Description	Notes/Ref.	Qty	Unit	Crew	Hrs	Labor	Material	Other	Subc.	Labor	Material	Other	Subc.	Total Cost	Total Item
1																	
2	**B2011**	**Exterior Stucco / Plaster**		**1**	**ls**											**$ -**	**$ 11,291.62**
3	4.01	Exterior plaster cracking															
4		Locations: * Building 4: 4'-0" (3 locations) * Building 7: 1'-0"		4	ea												
5	A.	Logistics / Access / Protection	RC 4: 3-Man Crew, 2 Days	1	ea	RC 4	0.3	38.07				38	-	-	-	$ 38.07	
6	B.	Clean crack and prepare for sealant application		1	lf	RC 4	0.3	38.07				38	-	-	-	$ 38.07	
7	C.	Apply stucco sealant	Material: Alex Plus 10.1 oz. White Acrylic Latex Caulk Plus Silicone: $2.73 each	1	lf	RC 4	0.3	38.07	2.73			38	3	-	-	$ 40.80	
8	D.	Apply stucco patch repair material as needed to area of repair	Material: 1 qt. Pre-Mixed Stucco Patch: $8.23	1	ls	RC 4	0.5	63.45	8.23			63	8	-	-	$ 71.68	
9	E.	Paint application: Paint entire wall area to match existing	Material: 5-gal. #HDGCN01 Aged Stucco Grey Satin Latex Exterior Paint: $117.70 / 5 gallons assume 2-3 gallons needed with a 400sf coverage per gallon or $70.80	800	sf	RC 4	4	0.63	0.09			508	71	-	-	$ 578.79	
10	F.	Clean-Up		1	ea	RC 4	0.5	63.45				63	-	-	-	$ 63.45	
11	G.	Additional location		3	ea	RC 4				830.86		-	-	2,493	-	$ 2,492.58	
12												-	-	-	-	$ -	
13		Locations: * Building 13: 2'-0" (JS-03.282) * Building 1: 2'-0" * Building 12: 4'-0" (2 locations)		4	ea												
14	A.	Logistics / Access	RC 4: 3-Man Crew, 1/2 Day	1	ea	FC 4	0.3	38.07				38	-	-	-	$ 38.07	
15	B.	Clean crack and prepare for sealant application		2	lf	RC 4	0.5	31.72				63	-	-	-	$ 63.45	
16	C.	Apply stucco sealant	Material: Alex Plus 10.1 oz. White Acrylic Latex Caulk Plus Silicone: $2.73 each	2	lf	RC 4	0.5	31.72	2.73			63	5	-	-	$ 68.91	
17	D.	Apply stucco patch repair material as needed to area of repair	Material: 1 qt. Pre-Mixed Stucco Patch: $8.23	1	ls	RC 4	0.5	63.45	8.23			63	8	-	-	$ 71.68	
18	E.	Paint application: Paint entire wall area to match existing	Material: 5-gal. #HDGCN01 Aged Stucco Grey Satin Latex Exterior Paint: $117.70 / 5 gallons assume 2-3 gallons needed with a 400sf coverage per gallon or $70.80	800	sf	RC 4	4	0.63	0.09			508	71	-	-	$ 578.79	
19	F.	Clean-Up		1	ea	RC 4	0.5	63.45				63	-	-	-	$ 63.45	
20	G.	Additional location		3	ea	RC 4				884.35		-	-	2,653	-	$ 2,653.04	
22		Locations: * Building 1: 10'-0"		10	lf												
23	A.	Logistics / Access / Protection	RC 4: 3-Man Crew 1 Day	1	ea	RF 5	0.3	38.07				38	-	-	-	$ 38.07	
24	B.	Clean crack and prepare for sealant application		1	ea	RC 4	1	126.90				127	-	-	-	$ 126.90	
25	C.	Apply stucco sealant	Material: Alex Plus 10.1 oz. White Acrylic Latex Caulk Plus Silicone: $2.73 each Assume 4 tubes needed	1	ea	RC 4	1	126.90	10.92			127	11	-	-	$ 137.82	
26	D.	Apply stucco patch repair material as needed to area of repair	Material: 1 qt. Pre-Mixed Stucco Patch: $8.23	1	ea	RC 4	1	126.90	8.23			127	8	-	-	$ 135.13	
27	E.	Paint application: Paint entire wall area to match existing	Material: 5-gal. #HDGCN01 Aged Stucco Grey Satin Latex Exterior Paint: $117.70 / 5 gallons assume 2-3 gallons needed with a 400sf coverage per	800	sf	RC 4	4	0.63	0.09			508	71	-	-	$ 578.79	
28	F.	Clean-Up		1	ea	RC 4	0.5	63.45				63	-	-	-	$ 63.45	
30		Locations: * Building 8 - Unit 44 Front Elevation		1	ea												
31	A.	Logistics / Access / Protection	RC 4: 3-Man Crew, 2 Days Materials: 10 ft. x 25 ft. Clear 3.5 mil Polyethylene Sheeting: $12.08	1	ea	RC 4	0.3	38.07	12.08			38	12	-	-	$ 50.15	
	B.	Temporary scaffle at 2nd level	Allowance of $400	1	ea	RC 4	4	507.59		400.00		508	-	400	-	$ 907.59	

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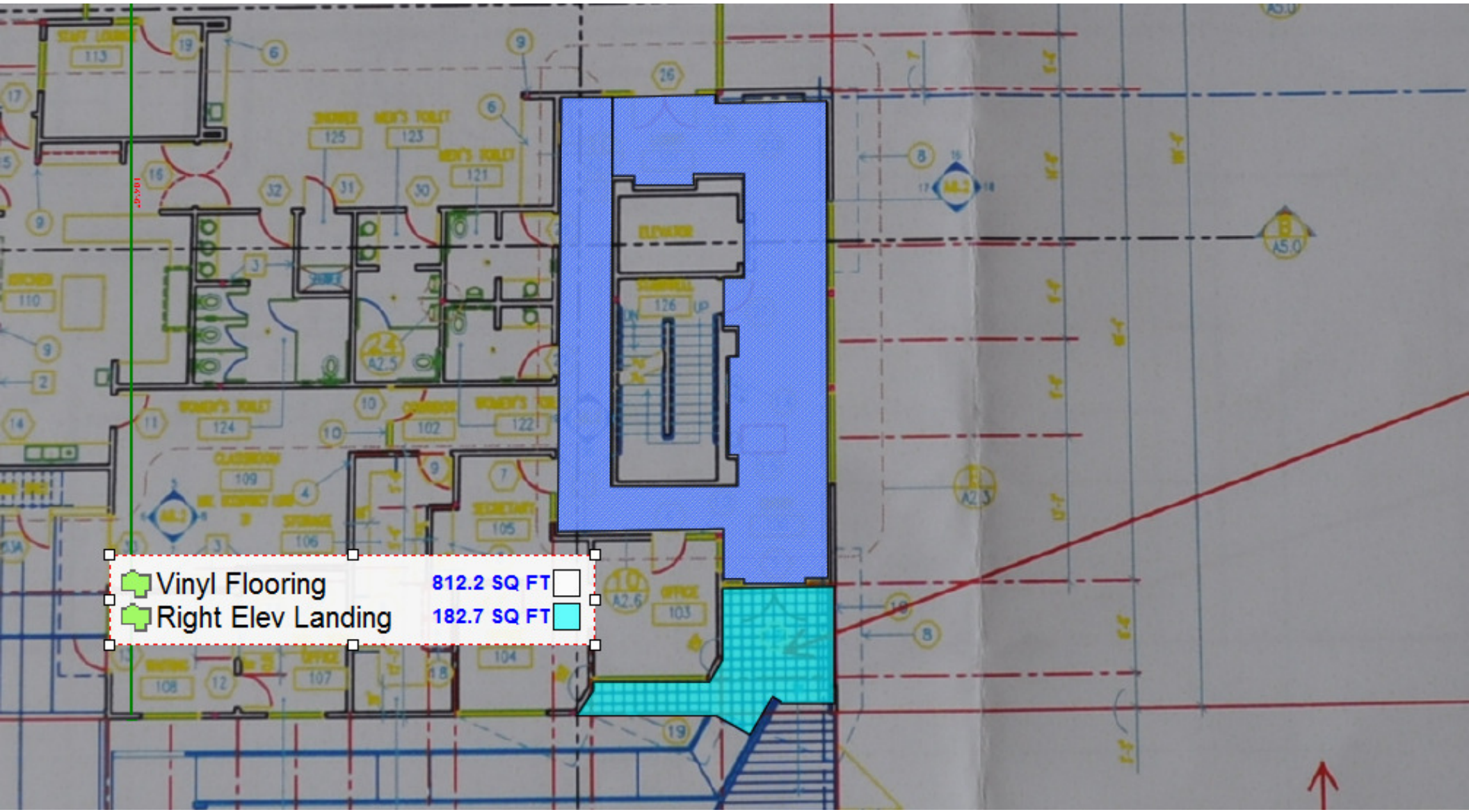
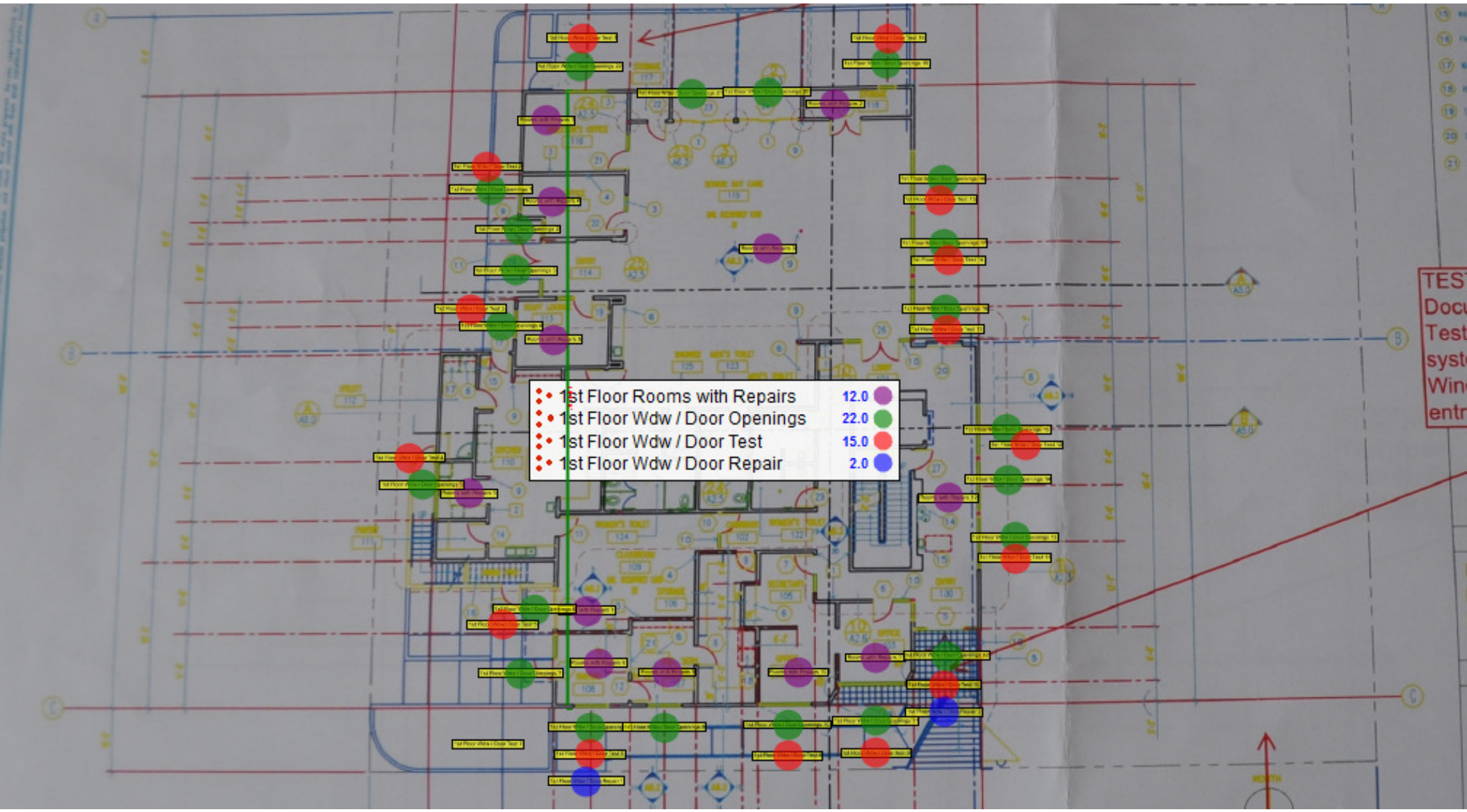

Vinyl Flooring
812.2 SQ FT
Right Elev Landing
182.7 SQ FT


1st Floor Rooms with Repairs 12.0
1st Floor Wdw / Door Openings 22.0
1st Floor Wdw / Door Test 15.0
1st Floor Wdw / Door Repair 2.0

G-1000

Pete Fowler CONSTRUCTION Services, Inc.

Job Name [redacted] Job # 14-204

Date _____ By JS Page _____

Equipment

Photo	Location	Code	Description

Equipment price based on Graham Cracker Demo
(888)-430-DEMO or (951) 244-2235

Excavator = $1800 per day

Bobcat = $1000 per day

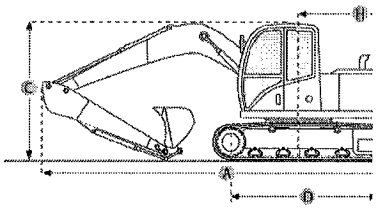
Water truck = $800 per day

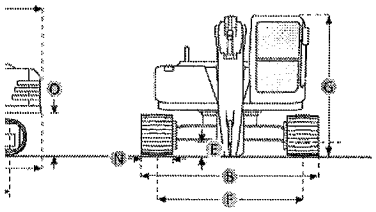
Hauling

- 64 loads per 8hr day
- trucking operator $110 per hr.

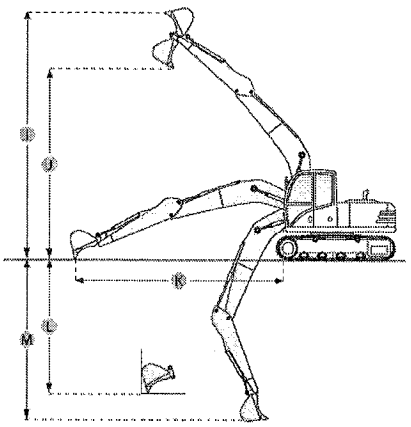
RITCHIE Specs Everything about Equipment

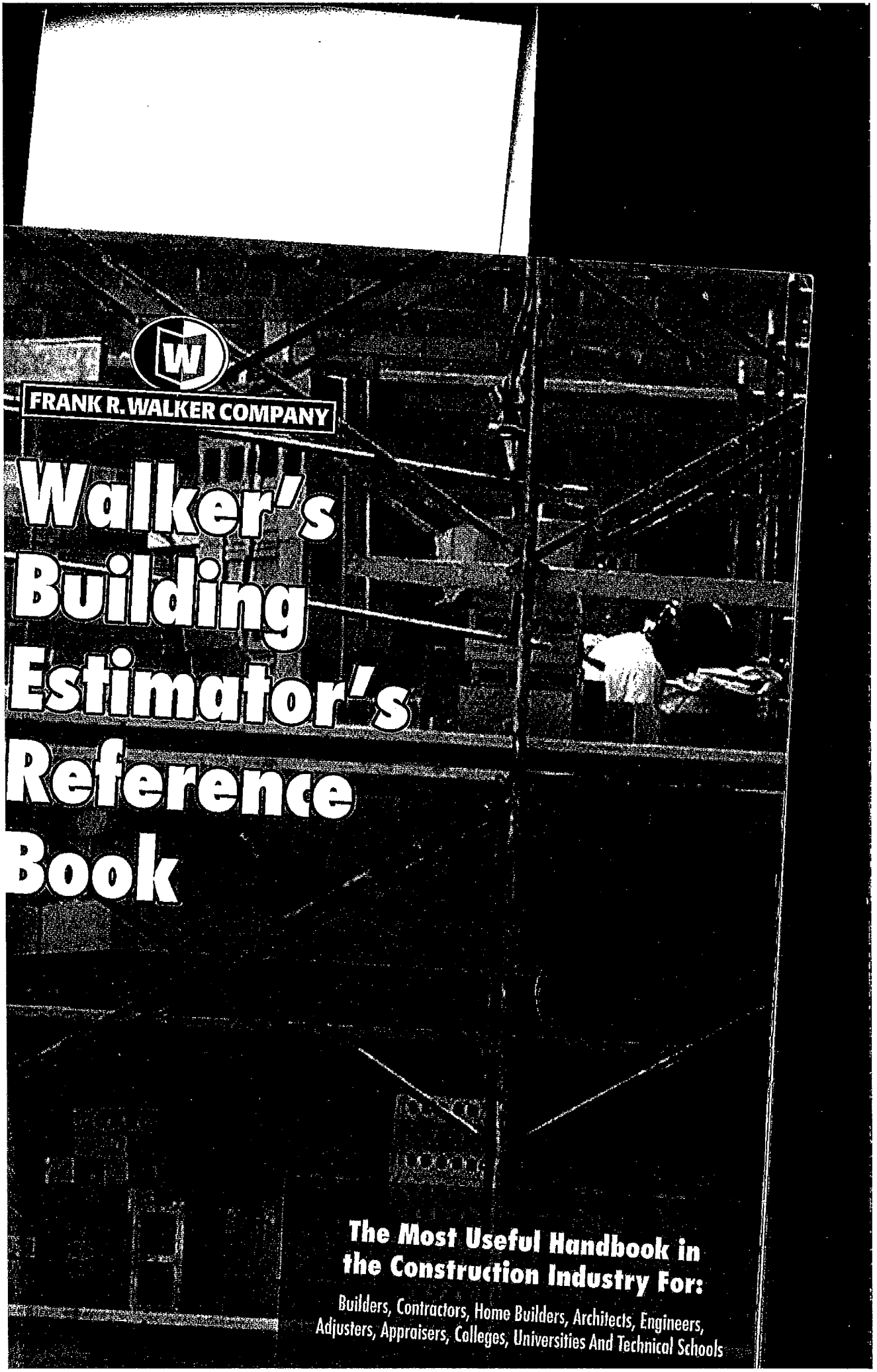
CATERPILLAR 345BL HYDRAULIC EXCAVATOR





Boom/Stick Option	Boom/Stick Option (HEX) 1	
A. SHIPPING LENGTH OF UNIT	38.6 ft in	11770 mm
C. SHIPPING HEIGHT OF UNIT	12 ft in	3660 mm
J. MAX LOADING HEIGHT	24.7 ft in	7540 mm
K. MAX REACH ALONG GROUND	42.7 ft in	13000 mm
L. MAX VERTICAL WALL DIGGING DEPTH	23.9 ft in	7280 mm
M. MAX DIGGING DEPTH	30.4 ft in	9270 mm
Dimensions		
B. WIDTH TO OUTSIDE OF TRACKS	11.5 ft in	3490 mm
D. LENGTH OF TRACK ON GROUND	14.3 ft in	4360 mm
E. GROUND CLEARANCE	1.7 ft in	510 mm
G. HEIGHT TO TOP OF CAB	10.4 ft in	3185 mm
H. TAIL SWING RADIUS	11.8 ft in	3610 mm
O. COUNTERWEIGHT CLEARANCE	4.2 ft in	1290 mm
Undercarriage		
F. TRACK GAUGE	9 ft in	2740 mm
N. SHOE SIZE	29.5 in	750 mm




FRANK R. WALKER COMPANY
Walker's Building Estimator's Reference Book
The Most Useful Handbook in the Construction Industry For:
Builders, Contractors, Home Builders, Architects, Engineers, Adjusters, Appraisers, Colleges, Universities And Technical Schools

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Publishers of

Walker's Practical Accounting and Cost Keeping for Contractors

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Walker's Manual for Construction Cost Estimating

Walker's Practical® Forms for Contractors

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IMPORTANT

How To Use This Book

In a book of estimating cost data that is used in all parts of the U.S. and in many foreign countries, it is impossible to quote material prices and labor costs that apply in every locality. To make the best use of a reference like this one, it takes some computation on your part.

All labor cost tables give the quantity of work that a worker or crew should perform per hour or per day, together with the number of hours required to complete a certain unit of work. We have taken this data and multiplied by wage rates that are the national average to determine labor unit prices for a given item.

The wage rates used in the labor cost tables found throughout this book are U.S. averages. Each rate is an average of the total wage and benefits that resulted from collective bargaining for that trade throughout the U.S. The rate shown may or may not reflect wage and benefit rates in your area.

You will want to insert your local wage scales and material prices into the cost tables to ensure accurate estimates. A standard method of tabulation has been used throughout this book, an example of which is given below:

When framing and placing wood floor joists up to 2" x 8" (50 x 200 mm) in buildings of regular construction, a carpenter should frame and place 550-600 b.f. (1.30-1.42 cu.m) per 8-hr. day at the following labor cost per 1,000 b.f. (2.36 cu.m):

	Hours	Rate	Total	Rate	Total
Carpenter	13.9	$....	$....	$28.25	$392.68
Labor	4.5	....	....	22.25	100.13
			$....		$492.81

The blank spaces are for you to insert your local wage rates and extend the prices as shown below:

	Hours	Rate	Total	Rate	Total
Carpenter	13.9	$21.50	$ 298.85	$28.25	$392.68
Labor	4.5	17.25	77.63	22.25	100.13
			$ 376.48		$492.81

Note that there is no factor included for overhead and profit on any of the costs in this book, because this is a variable item that each contractor must establish for each individual project.

Because of wide variance in state sales tax laws, this cost has not been included, and the user must apply the prevailing rate to obtain the total material cost.

To accommodate the maximum number of contractors, the insurance and taxes applicable to labor costs have not been included in any of the labor unit costs contained in this book, because some contractors prefer to incorporate these costs as part of overhead, while others maintain them as direct costs.

Two types of blades are used in cutting concrete with concrete saws as follows: 1) Green-Con wet-dry blades for cutting green concrete 2) diamond blades, of various specifications, for cutting cured or old concrete.

The cost of cutting concrete with a concrete saw varies considerably, depending on age of concrete, size of rebar, type of aggregate, blade specification used, accessibility of work, skill of operator, etc.

Assuming proper blade specification is used for the cutting job, green concrete 24 to 48 hours old may be cut 1" deep at the rate of 12 to 14 l.f. (3.6-4.2 m) per minute and 3" (75 mm) deep at the rate of 6 to 8 l.f. (1.8-2.4 m) per minute. These rates cover only actual cutting time. Overall production will be reduced considerably depending on length of each individual cut, number of machine moves, changes in direction of cuts, etc. Blade wear for a Green-Con blade of proper specification should cost from $0.01-0.02/l.f. (0.033-0.066/m) of cut 1" (25 mm) deep. For a 2" (50 mm) cut, blade cost should be $0.015-0.03/l.f.; 3" (75 mm) cut, $0.02-0.04 per l.f. (0.06-0.13 per m).

When cutting old or cured concrete, using a diamond blade of correct specification, cutting time may be double the amount given above for green concrete and cost of blade wear will probably run 5 to 6 times that given above. Inside cutting of a concrete slab on grade (trench) with rebar may be cut 6" deep at the rate of 40-50 l.f. (12.2-15.3 m) per hour. Trenches 6" deep x 12" wide are typically cut into 2' x 2' pieces for easy removal. Outside cutting of a concrete slab such as bridges and piers 8"–10" deep with rebar may be cut at the rate of 65–75 l.f. (19.9-22.3 m) per hour. Typically bridges and pier decks are cut into 6' x 8' panels and loaded onto truck beds with the aid of a crane or excavator. Roadway concrete with minimal rebar may be cut 8"–10" deep at a rate of 100–150 l.f. (30.5-45.8 m) per hour. Asphalt roadway may be cut 4"-6" deep at a rate of 200–225 l.f. (60.1-68.6 m) per hour. Blade wear considering proper specification when cutting 8-10" deep concrete should cost between $0.05-$0.06 /inch foot. It is best to obtain a firm price quote for any concrete cutting that is required for a project, but if a quick budget estimate is needed, flat sawing concrete is usually priced by the inch foot. For example a slab that is 6" deep would be priced at $0.20-$0.60/inch foot or $1.20-$3.60/l.f. Asphalt 6" deep would be priced at $0.10-$0.20/inch foot or $0.60-$1.20/l.f.

Cutting Concrete Door Openings with Wall Saw

Typical door openings are 3' x 7' x 12"-16" deep (.91M x 2.13M x 300 mm – 400 mm). To cut these openings a wall saw that operates on a track is utilized. Wall saws are available from Diamond Products located in Ohio, Electrolux located in Kansas City and many other manufacturers. Costs for the wall saw units range between $10,000.00-$15,000.00 plus a power unit to run the saw that ranges between $20,000.00 and 30,000.00. These units are typically powered by hydraulic, diesel and electric. The openings are cut with continuous water which can be controlled by damming or with the use of a vacuum. Over cutting is generally allowed and there are options using a chain saw and core drilling the corners when over cuts are not allowed, but will not be discussed at this time. Diamond blades used for this application are specifically manufactured for wall saws with diameters between 18"–72"

(450 mm – 1800mm). The average wall saw blade is 30" (750 mm). The cost of cutting concrete with a wall saw varies considerably, depending on age of concrete, size of rebar, type of aggregate, blade specification used, accessibility of work, skill of operator, etc. Wall sawing is usually performed by specialty subcontractors as Semcor Mr. Wayne Camp) whose only business is to provide this service to general contractors. It is best to obtain a firm price quote from any concrete cutting company for cutting that is required for a project, but if a quick budget estimate is needed, wall sawing is usually priced by the inch foot. For example a wall that is 12" (300 mm) deep would be priced at $3.00-$4.00/ inch foot ($9.84 - $13.12/25mm-foot) or $36.00-$48.00/ l.f.($118.11 - $157.48 / LM)

Assuming proper blade specification is used for the cutting job, the cutting rate will be 4–5 l.f. (1.22–1.55 m) per hour. Blade wear considering proper specification should cost between $ 0.15-$0.20 /inch foot. Typically a 30" blade will cut 12" deep into a wall at a blade cost of approximately $900.00 and last 4,500 inch feet.

When the depth of a wall exceeds 24" (600 mm) and cannot be cut from both sides then other options are available including the use of a wire saw. This saw utilizes pulleys, a main frame and wire with diamond beads. 2" (50 mm) holes are drilled into the concrete to sling the diamond wire. The power unit can be electric, hydraulic, gas or diesel.

02200 EARTHWORK

It is not difficult to compute the number of cubic yards of earth to be excavated or removed from the premises on a specific project, but it is quite another matter to estimate the actual cost of performing this work, because of the many factors and possible unknown items entering into the cost. This includes such items as type of soil, whether or not water will be encountered, pumping, whether the banks of the excavated portion will be self-supporting or whether it will be necessary to brace and sheet them, disposal of excavated earth, length of haul to dump, type of material, etc.

The prudent estimator will examine the equipment that is available when preparing the cost estimate. The accurate choice of equipment at the bidding stage will determine the final costs. Type of equipment selected, as well as the size of equipment, should be based on several factors-subsurface information, site conditions, volume of material to be moved, and availability of specific equipment.

Estimating Quantities of Excavation. Excavating is measured by the cubic yard, cu.yd. (cubic meter, cu.m, m3). One cubic yard contains 27 cu. ft. (3' x 3' x 3')

General or Mass Excavation. When computing the volume or cubic contents of any basement or portion to be excavated, take all measurements from the outside face of wall footings, add 6" to 1'-0" (150 to 300 mm) on each side to allow for placing and removing forms, and then allow for sloping the sides of the excavation so they will stand reasonably stable without being supported by bracing or sheet piling. The amount of slope necessary to provide a "safe" hole will vary with the kind of soil to be excavated, depth of excavation, etc.

On construction projects the Federal Occupational Safety and Health Administration (OSHA), as well as state and local agencies, require for excavations of five feet deep

and over soil support of sheeting or some other type. If none is used, then the side banks of the excavation shall be sloped back to the soils natural angle of repose so that the excavation sides will remain stable.

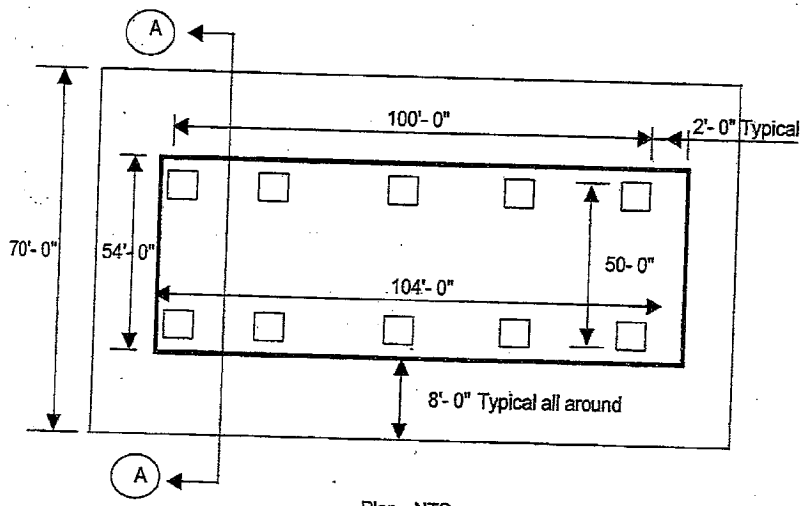
Digging in previously undisturbed material and assuming that no water or unstable conditions exist, most estimators, when taking off quantities for excavation, use a 1:1 slope; that is, one horizontal to one vertical, for sand and gravel; a 1:2 slope for ordinary clay and a 1:3 or 1:4 slope for stiff clay.

In some cases job conditions may not permit the sloping of banks and then it is usually necessary to sheet and brace the banks to prevent accidents that result in damage to adjoining property, or worse, worker injury or death.

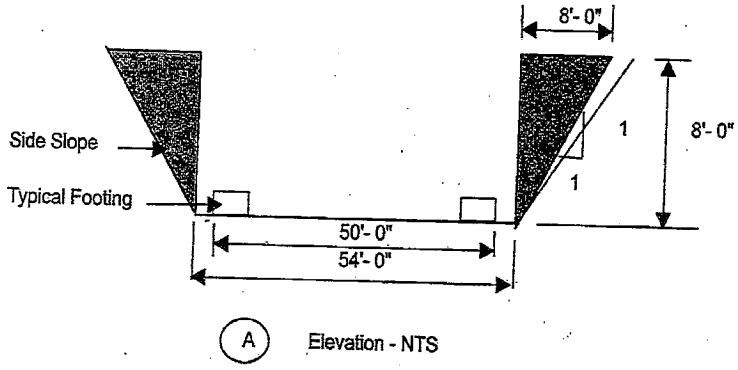
On jobs with column footings that project beyond the wall footings, additional cuts must be made into the banks at the column locations to accommodate the additional width of the footings. The volume of this cut is computed by taking the column footing length plus 1'-0" or 2'-0" (300 or 600 mm) for work space plus "layback" of banks on both ends and multiplying by the amount of projection beyond the wall footing to obtain the area of the additional cut, which is then multiplied by the depth of the cut to obtain the volume of additional excavation required.

The depth of the general cut is usually taken from the underside of the topsoil, previously removed, to the underside of the floor slab. Where sand, gravel, or other fill material is to be placed under the concrete floor, the depth should be taken to the underside of the fill material.

Example: Assume you are figuring the general or mass excavation for a building 100'-0" x 50'-0" (30 x 15 m) at grade. The bottom edge of the excavation is to be 2'-0" (600 mm) from the edge of footing(s). Also assume the depth of the excavation to be 8'-0" (2.4 m) and the soil will stand at a slope of 1:1, one horizontal to one vertical. The calculation for excavation volume shall be figured as follows:



Plan - NTS



A Elevation - NTS

Excavation

Base Excavation plus 2' outside footing line	54' x 104' x 8' deep =	44,928.00	CF =
		1,664.00	CY
Base Excavation plus 600mm outside footing line	16.45 x 31.7 x 2.44 M =	1,272.00	CM

Side Slope

Triangle = 8' x 8' x 1/ 2 = 32 CF per LF

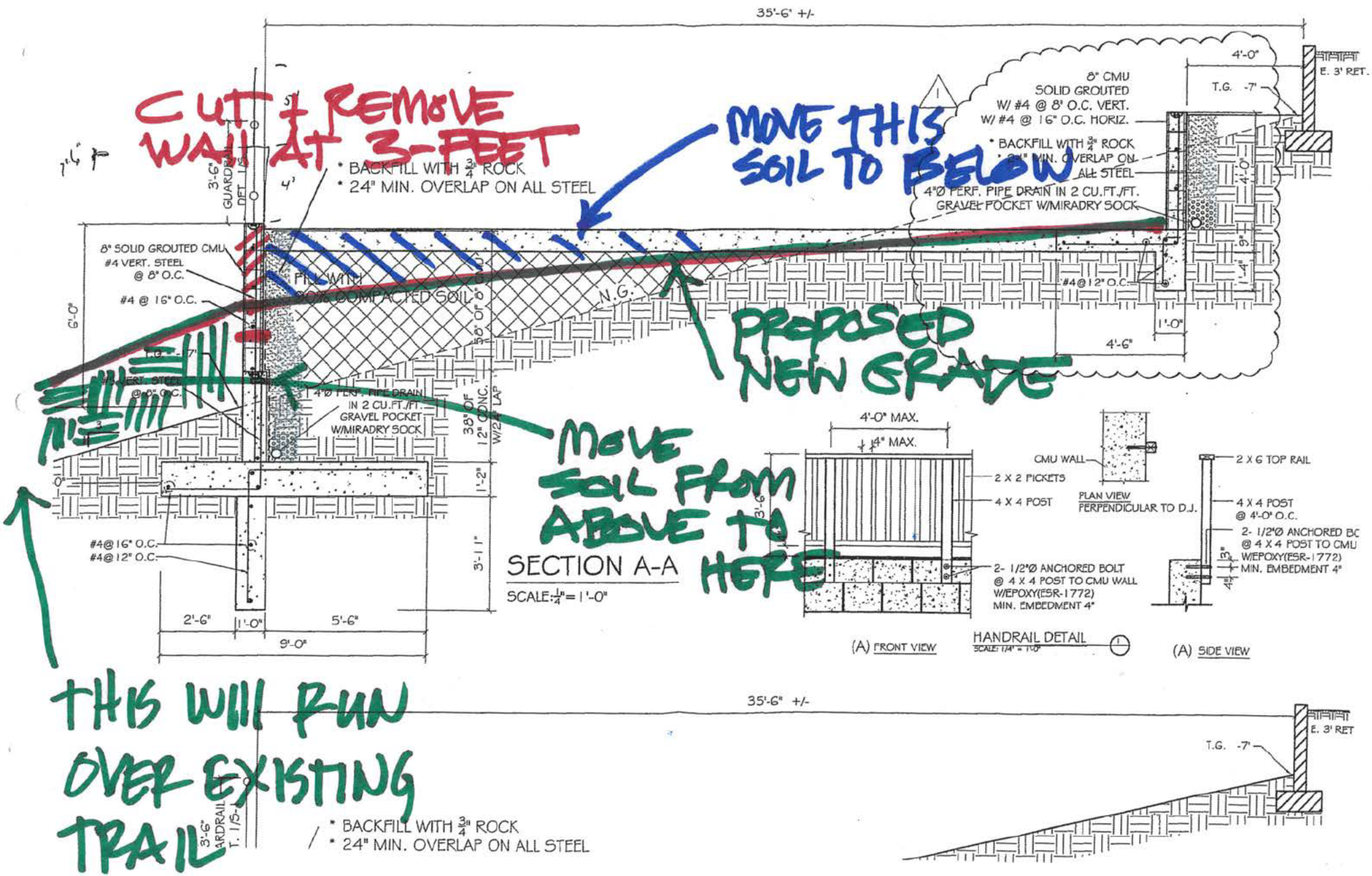
70'+70'+104'+104' = 348 LF

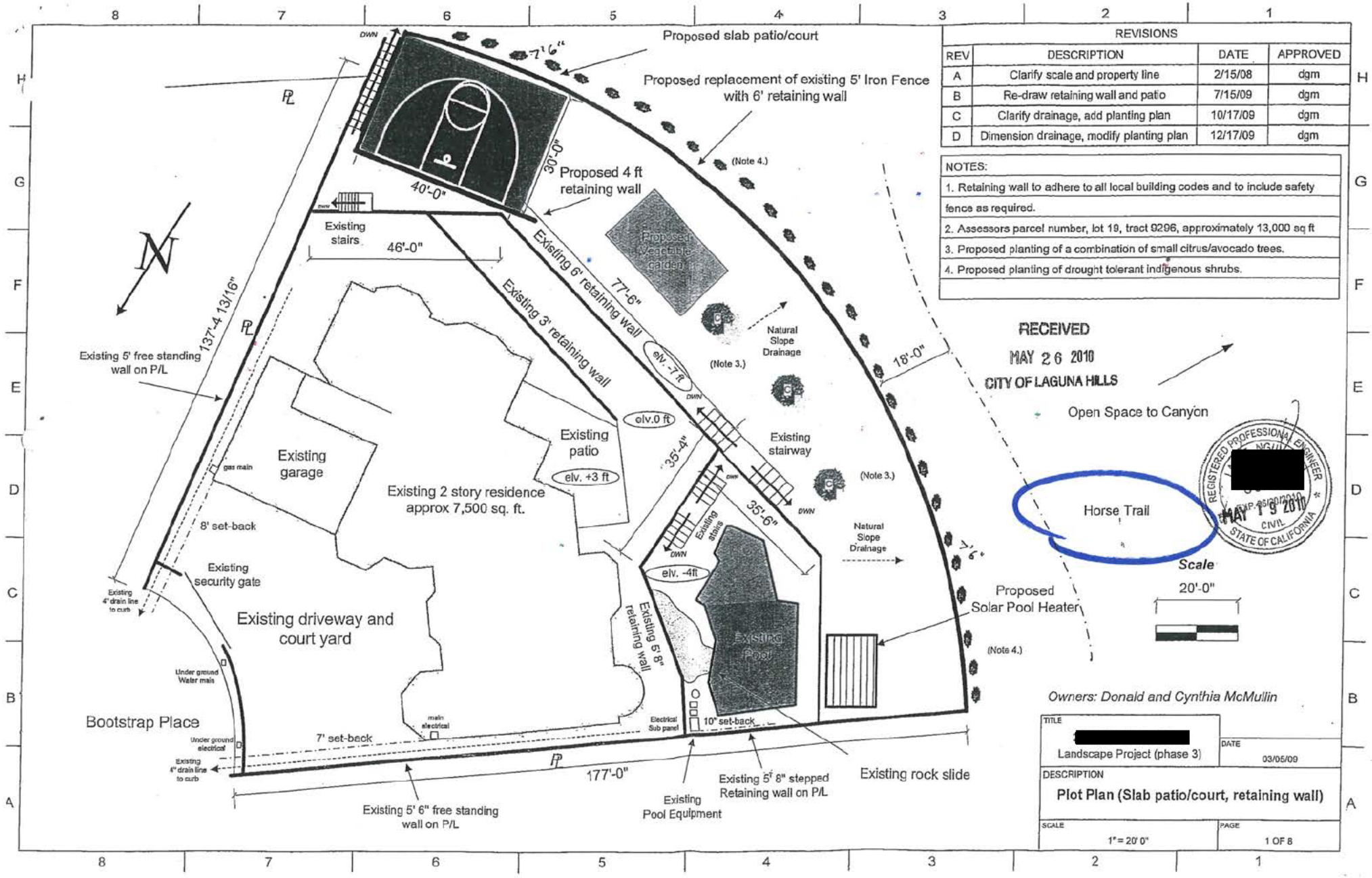
11,136.00 CF

412.44 CY

Totals	Cu.Ft.	Cu.Yd.	Cu. M
Base Excavation	44,928.00	1,664.00	1,272.3
Side Slope	11,136.00	412.44	315.4
Total Excavation	56,064.00	2,076.44	1,587.7

NELLIE GAIL / [redacted] PROPOSAL





REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	Clarify scale and property line	2/15/08	dgm
B	Re-draw retaining wall and patio	7/15/09	dgm
C	Clarify drainage, add planting plan	10/17/09	dgm
D	Dimension drainage, modify planting plan	12/17/09	dgm

NOTES:

1. Retaining wall to adhere to all local building codes and to include safety fence as required.
2. Assessors parcel number, lot 19, tract 9296, approximately 13,000 sq ft
3. Proposed planting of a combination of small citrus/avocado trees.
4. Proposed planting of drought tolerant indigenous shrubs.

Owners: Donald and Cynthia McMullin

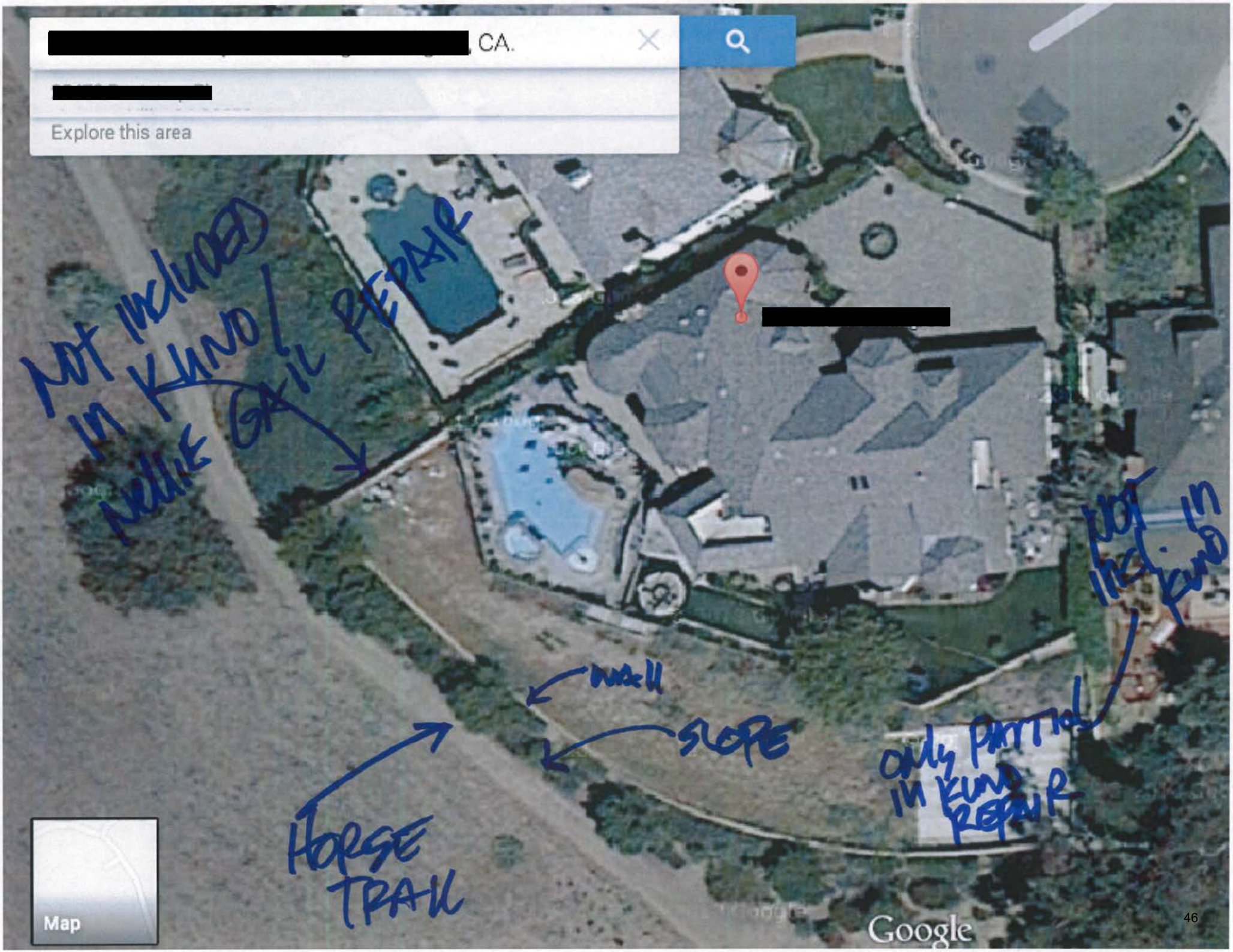
TITLE [redacted]
Landscape Project (phase 3)

DATE 03/05/09

DESCRIPTION
Plot Plan (Slab patio/court, retaining wall)

SCALE 1" = 20' 0"

PAGE 1 OF 8


[redacted] CA.
Explore this area
[redacted]
NOT INCLUDED IN KUND / NELLIE GAIL PREPAIR
WALL
SLOPE
HORSE TRAIL
ONLY PARTIAL IN KUND REPAIR
NOT INCL IN FUND
Map
Google


WALL
HORSE TRAIL
STEEP SLOPES

3. DETAILED ANALYSIS



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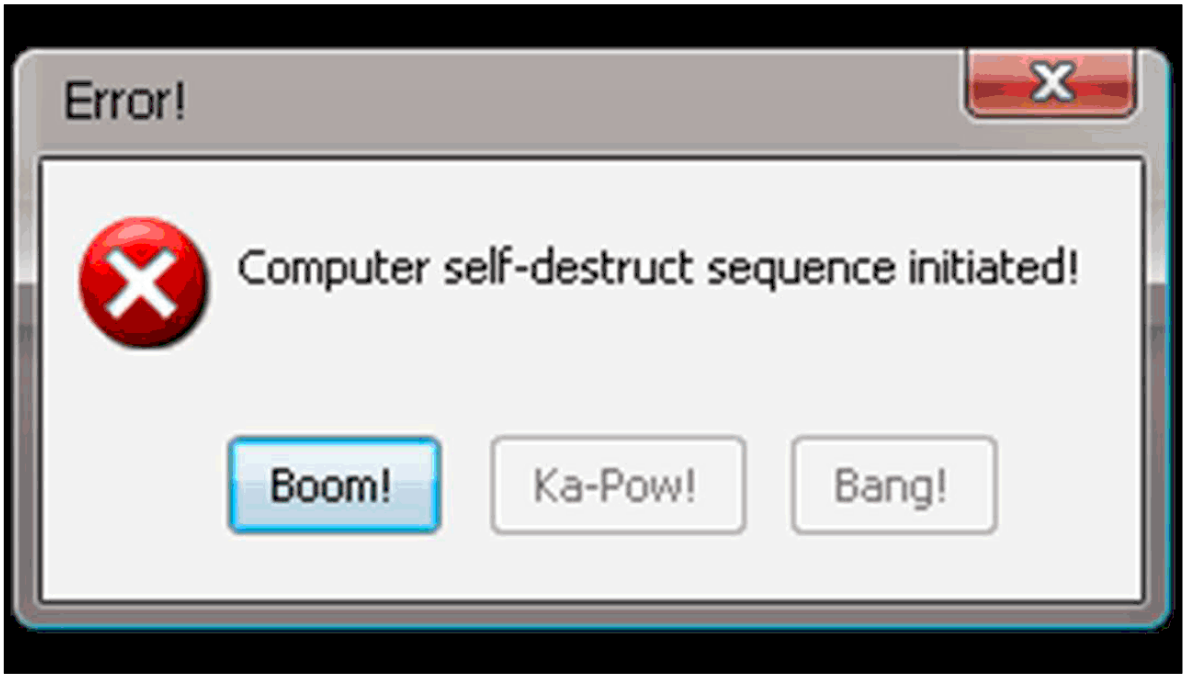
3. DETAILED ANALYSIS

Thinking Scientifically



3. DETAILED ANALYSIS

Estimating Errors



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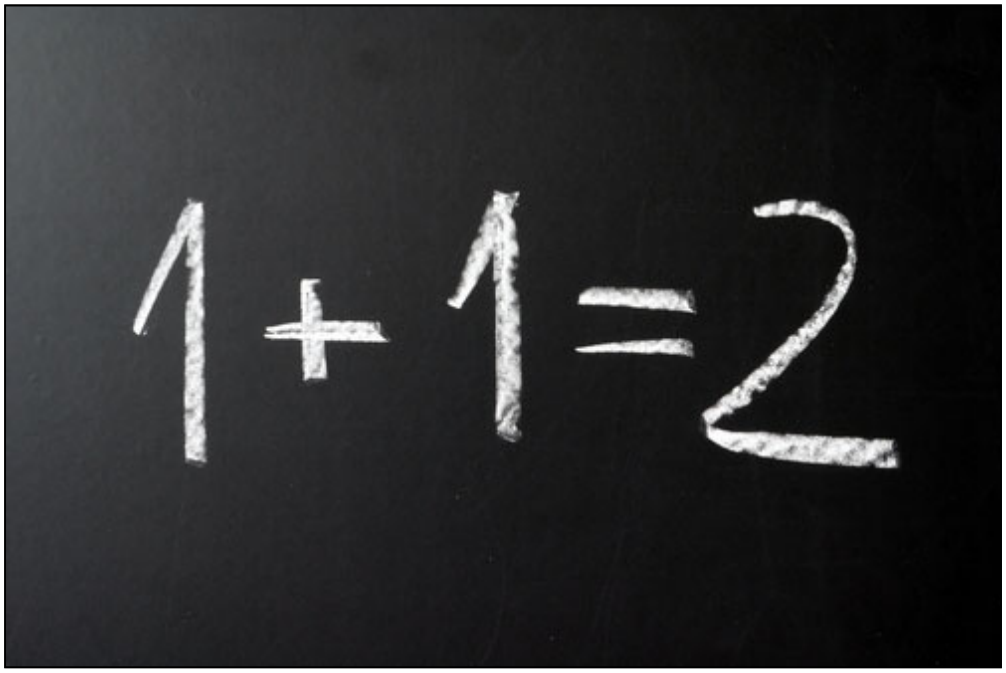
3. DETAILED ANALYSIS

Estimating Basics



3. DETAILED ANALYSIS

Labor



3. DETAILED ANALYSIS

Indirect Construction Costs

- GC's
- Overhead
- Profit



3. DETAILED ANALYSIS

Other Project Costs

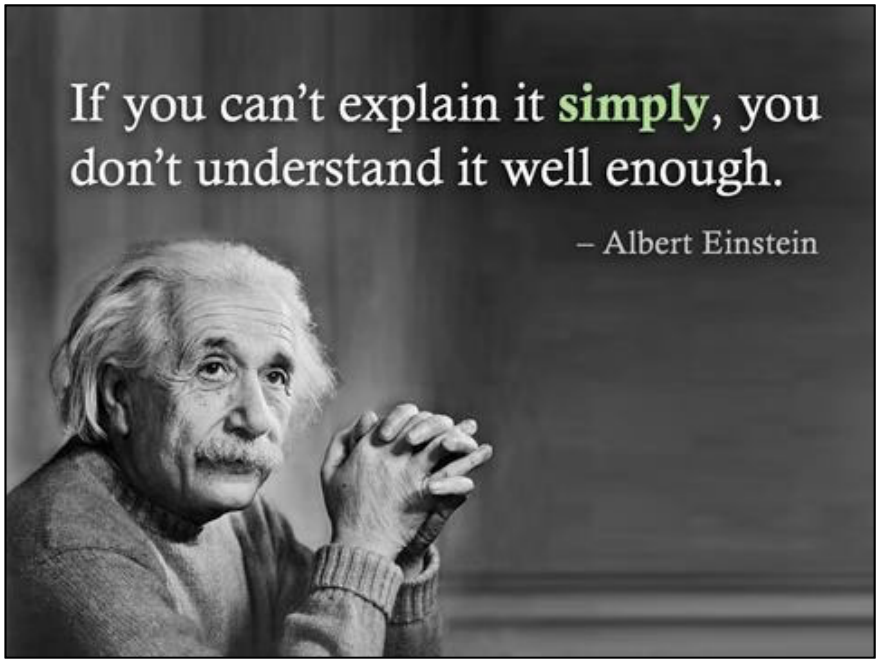
- Design
- Engineering
- Inspection & Testing
- Professional Fees
- Permit Fees
- Relocation





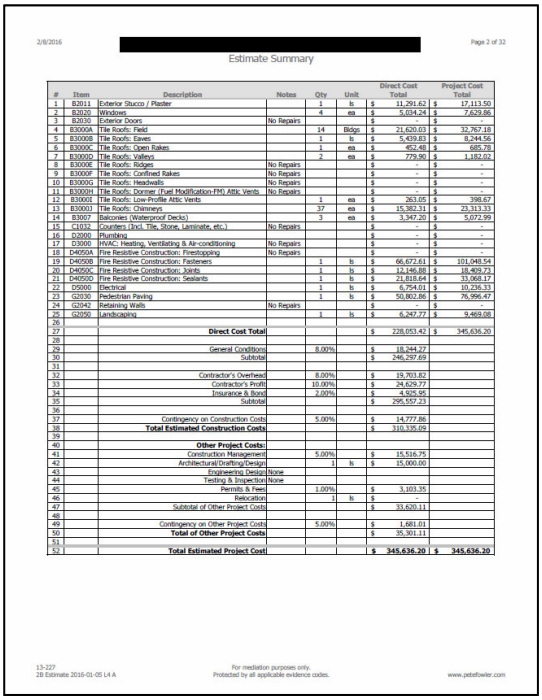
3. DETAILED ANALYSIS

If You Can't Explain It Simply…



3. DETAILED ANALYSIS

Case Study: The Solution



2/8/2016 [redacted] Page 2 of 32

Estimate Summary

#	Item	Description	Notes	Qty	Unit	Direct Cost Total	Project Cost Total
1	B2011	Exterior Stucco / Plaster		1	ls	$ 11,291.62	$ 17,113.50
2	B2020	Windows		4	ea	$ 5,034.24	$ 7,629.86
3	B2030	Exterior Doors	No Repairs			$ -	$ -
4	B3000A	Tile Roofs: Field		14	Bldgs	$ 21,620.03	$ 32,767.18
5	B3000B	Tile Roofs: Eaves		1	ls	$ 5,439.83	$ 8,244.56
6	B3000C	Tile Roofs: Open Rakes		1	ea	$ 452.48	$ 685.78
7	B3000D	Tile Roofs: Valleys		2	ea	$ 779.90	$ 1,182.02
8	B3000E	Tile Roofs: Ridges	No Repairs			$ -	$ -
9	B3000F	Tile Roofs: Confined Rakes	No Repairs			$ -	$ -
10	B3000G	Tile Roofs: Headwalls	No Repairs			$ -	$ -
11	B3000H	Tile Roofs: Dormer (Fuel Modification-FM) Attic Vents	No Repairs			$ -	$ -
12	B3000I	Tile Roofs: Low-Profile Attic Vents		1	ea	$ 263.05	$ 398.67
13	B3000J	Tile Roofs: Chimneys		37	ea	$ 15,382.31	$ 23,313.33
14	B3007	Balconies (Waterproof Decks)		3	ea	$ 3,347.20	$ 5,072.99
15	C1032	Counters (Incl. Tile, Stone, Laminate, etc.)	No Repairs			$ -	$ -
16	D2000	Plumbing				$ -	$ -
17	D3000	HVAC: Heating, Ventilating & Air-conditioning	No Repairs			$ -	$ -
18	D4050A	Fire Resistive Construction: Firestopping	No Repairs			$ -	$ -
19	D4050B	Fire Resistive Construction: Fasteners		1	ls	$ 66,672.61	$ 101,048.54
20	D4050C	Fire Resistive Construction: Joints		1	ls	$ 12,146.88	$ 18,409.73
21	D4050D	Fire Resistive Construction: Sealants		1	ls	$ 21,818.64	$ 33,068.17
22	D5000	Electrical		1	ls	$ 6,754.01	$ 10,236.33
23	G2030	Pedestrian Paving		1	ls	$ 50,802.86	$ 76,996.47
24	G2042	Retaining Walls	No Repairs			$ -	$ -
25	G2050	Landscaping		1	ls	$ 6,247.77	$ 9,469.08
26							
27		**Direct Cost Total**				$ 228,053.42	$ 345,636.20
28							
29		General Conditions		8.00%		$ 18,244.27	
30		Subtotal				$ 246,297.69	
31							
32		Contractor's Overhead		8.00%		$ 19,703.82	
33		Contractor's Profit		10.00%		$ 24,629.77	
34		Insurance & Bond		2.00%		$ 4,925.95	
35		Subtotal				$ 295,557.23	
36							
37		Contingency on Construction Costs		5.00%		$ 14,777.86	
38		**Total Estimated Construction Costs**				$ 310,335.09	
39							
40		**Other Project Costs:**					
41		Construction Management		5.00%		$ 15,516.75	
42		Architectural/Drafting/Design		1	ls	$ 15,000.00	
43		Engineering Design	None				
44		Testing & Inspection	None				
45		Permits & Fees		1.00%		$ 3,103.35	
46		Relocation		1	ls	$ -	
47		Subtotal of Other Project Costs				$ 33,620.11	
48							
49		Contingency on Other Project Costs		5.00%		$ 1,681.01	
50		**Total of Other Project Costs**				$ 35,301.11	
51							
52		**Total Estimated Project Cost**				**$ 345,636.20**	**$ 345,636.20**

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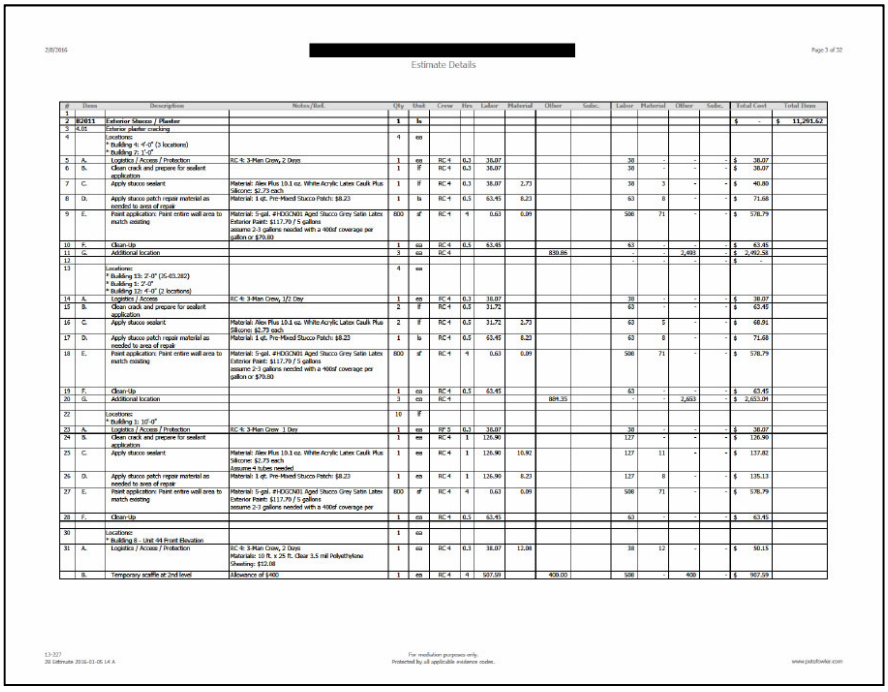
3. DETAILED ANALYSIS

Case Study: The Solution



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Estimate Details

#	Item	Description	Notes/Ref.	Qty	Unit	Crew	Hrs	Labor	Material	Other	Subc.	Labor	Material	Other	Subc.	Total Cost	Total Item
1																	
2	R2011	Exterior Stucco / Plaster		1	ls											$ -	$ 11,291.62
3	4.01	Exterior plaster cracking															
4		Locations: * Building 4: 4'-0" (3 locations) * Building 7: 1'-0"		4	ea												
5	A.	Logistics / Access / Protection	RC-4: 3-Man Crew, 2 Days	1	ea	RC-4	6.3	38.07				38	-	-	-	$ 38.07	
6	B.	Clean crack and prepare for sealant application		1	lf	RC-4	0.3	38.07				38	-	-	-	$ 38.07	
7	C.	Apply stucco sealant	Material: Alex Plus 10.1 oz. White Acrylic Latex Caulk Plus Silicone: $2.73 each.	1	lf	RC-4	0.3	38.07	2.73			38	3	-	-	$ 40.80	
8	D.	Apply stucco patch repair material as needed to area of repair	Material: 1 qt. Pre-Mixed Stucco Patch: $8.23	1	ls	RC-4	0.5	63.45	8.23			63	8	-	-	$ 71.68	
9	E.	Paint application: Paint entire wall area to match existing	Material: 5-gal. #HDGCN01 Aged Stucco Grey Satin Latex Exterior Paint: $117.79 / 5 gallons assume 2-3 gallons needed with a 400sf coverage per gallon or $79.80	800	sf	RC-4	4	0.63	0.09			500	71	-	-	$ 578.79	
10	F.	Clean-Up		1	ea	RC-4	0.5	63.45				63	-	-	-	$ 63.45	
11	G.	Additional location		3	ea	RC-4				830.85		-	-	2,492	-	$ 2,492.58	
12												-	-	-	-	$ -	
13		Locations: * Building 13: 2'-0" (X-43.382) * Building 1: 2'-0" * Building 12: 4'-0" (2 locations)		4	ea												
14	A.	Logistics / Access	RC-4: 3-Man Crew, 1/2 Day	1	ea	RC-4	0.3	38.07				38	-	-	-	$ 38.07	
15	B.	Clean crack and prepare for sealant application		2	lf	RC-4	0.5	31.72				63	-	-	-	$ 63.45	
16	C.	Apply stucco sealant	Material: Alex Plus 10.1 oz. White Acrylic Latex Caulk Plus Silicone: $2.73 each	2	lf	RC-4	0.5	31.72	2.73			63	5	-	-	$ 68.91	
17	D.	Apply stucco patch repair material as needed to area of repair	Material: 1 qt. Pre-Mixed Stucco Patch: $8.23	1	ls	RC-4	0.5	63.45	8.23			63	8	-	-	$ 71.68	
18	E.	Paint application: Paint entire wall area to match existing	Material: 5-gal. #HDGCN01 Aged Stucco Grey Satin Latex Exterior Paint: $117.79 / 5 gallons assume 2-3 gallons needed with a 400sf coverage per gallon or $79.80	800	sf	RC-4	4	0.63	0.09			500	71	-	-	$ 578.79	
19	F.	Clean-Up		1	ea	RC-4	0.5	63.45				63	-	-	-	$ 63.45	
20	G.	Additional location		3	ea	RC-4				884.35		-	-	2,653	-	$ 2,653.04	
22		Locations: * Building 1: 10'-0"		10	lf												
23	A.	Logistics / Access / Protection	RC-4: 3-Man Crew 1 Day	1	ea	RF-3	0.3	38.07				38	-	-	-	$ 38.07	
24	B.	Clean crack and prepare for sealant application		1	ea	RC-4	1	126.90				127	-	-	-	$ 126.90	
25	C.	Apply stucco sealant	Material: Alex Plus 10.1 oz. White Acrylic Latex Caulk Plus Silicone: $2.73 each Assume 4 tubes needed	1	ea	RC-4	1	126.90	10.92			127	11	-	-	$ 137.82	
26	D.	Apply stucco patch repair material as needed to area of repair	Material: 1 qt. Pre-Mixed Stucco Patch: $8.23	1	ea	RC-4	1	126.90	8.23			127	8	-	-	$ 135.13	
27	E.	Paint application: Paint entire wall area to match existing	Material: 5-gal. #HDGCN01 Aged Stucco Grey Satin Latex Exterior Paint: $117.79 / 5 gallons assume 2-3 gallons needed with a 400sf coverage per	800	sf	RC-4	4	0.63	0.09			500	71	-	-	$ 578.79	
28	F.	Clean-Up		1	ea	RC-4	0.5	63.45				63	-	-	-	$ 63.45	
29																	
30		Locations: * Building 8 - Unit 04 Front Elevation		1	ea												
31	A.	Logistics / Access / Protection	RC-4: 3-Man Crew, 2 Days Materials: 10 ft. x 25 ft. Clear 3.5 mil Polyethylene Sheeting: $12.08	1	ea	RC-4	0.3	38.07	12.08			38	12	-	-	$ 50.15	
	B.	Temporary scaffe at 2nd level	Allowance of $400	1	ea	RC-4	4	507.59		400.00		508	-	400	-	$ 907.59	

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20 Estimate 2016-01-05 14 A

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[redacted] Construction Inc.
License [redacted]
Tax ID [redacted]
[redacted]
[redacted]
[redacted]

Prepared by [redacted] Construction, Inc.				
Owner [redacted]				
[redacted]				
San Diego, CA 92130				
Note: This scope is based on returning the home to its pre-loss condition and includes items not yet completed as of the last inspection performed by [redacted] on May 15, 2017. It is [redacted] understanding, and according to the report prepared by [redacted], that all areas of the home have been cleaned to acceptable standards, where applicable.				
Entry (13' radius with 20' ceiling; 2 missing walls approx. 7' x 7' each)	**Quantity**	**U of M**	**Unit Cost**	**Total**
Seal and paint the walls	1266	SF	$ 4.90	$ 6,203.40
Remove existing tile floor	251.5	SF	$ 1.50	$ 377.25
Install new tile floor- like kind	251.5	SF	$ 10.00	$ 2,515.00
Subtotal:				**$ 9,095.65**
Entry Stairway (4' x 20')	**Quantity**	**U of M**	**Unit Cost**	**Total**
Step Charge for tucked installation	20	Each	$ 8.00	$ 160.00
Install new carpet pad- like kind/premium grade	80	SF	$ 1.31	$ 104.80
Install new carpet- like kind/premium grade (15%waste added)	92	SF	$ 6.69	$ 615.48
Subtotal:				**$ 880.28**
Sitting/Piano Room (15' x 17' with 20' ceiling)	**Quantity**	**U of M**	**Unit Cost**	**Total**
Install new drywall where needed (at interior walls)	26	SF	$ 2.19	$ 56.94
Tape, Mud & Texture new drywall to match existing	128	SF	$ 12.50	$ 1,600.00
Install new baseboard - 5"	52	LF	$ 4.06	$ 211.12
Remove and replace door trim	3	Each	$ 178.62	$ 535.86
Seal and paint the walls, new baseboard and door trim	1280	SF	$ 4.90	$ 6,272.00
Install new carpet pad- like kind/premium grade	244	SF	$ 1.31	$ 319.64
Install new carpet- like kind/premium grade (15%waste added)	280	SF	$ 6.69	$ 1,873.20
Remove and re-set piano to facilitate carpet install	2	Each	$ 125.00	$ 250.00
Subtotal:				**$ 11,118.76**
Hallway to Kitchen 23' x 6' with 10' ceiling (Offsets: Hallway 2 to Powder Room 9' x 3'9" and Hallway 3 to downstairs office 9' x 5' with closet 3' x 4')	**Quantity**	**U of M**	**Unit Cost**	**Total**
Tape, Mud & Texture new drywall to match existing	188	SF	$ 12.50	$ 2,350.00
Install new baseboard - 5"	94	LF	$ 4.06	$ 381.64
Seal and paint the walls, new baseboard and door trim	940	SF	$ 4.90	$ 4,606.00
Install new like-kind travertine tile	205	SF	$ 14.00	$ 2,870.00
Additional tile labor for patterned travertine	8	Hour	$ 103.00	$ 824.00
Subtotal:				**$ 11,031.64**
Powder Room (10' x 7'2" with 10 foot ceiling)	**Quantity**	**U of M**	**Unit Cost**	**Total**
Install new drywall where needed	20	SF	$ 2.19	$ 43.80
Tape, Mud & Texture new drywall to match existing	70	SF	$ 12.50	$ 875.00
Install new baseboard - 5"	36	LF	$ 4.06	$ 146.16
Reinstall existing vanity and sink	1	Each	$ 146.10	$ 146.10
Remove and replace door trim	1	Each	$ 178.62	$ 178.62
Seal and paint the walls, new baseboard and door trim	350	SF	$ 4.90	$ 1,715.00
Install new like-kind travertine tile	58	SF	$ 14.00	$ 812.00
Additional tile labor for patterned travertine	4	Hour	$ 103.00	$ 412.00
Remove existing wallpaper at 2 walls	140	SF	$ 0.28	$ 39.20
Install new high grade wall paper at two walls	175	SF	$ 7.67	$ 1,342.25
Install new towel rack, toilet paper holder, etc.	2	Each	$ 62.46	$ 124.92
Subtotal:				**$ 5,835.05**
Dining Room(15' x 12' with 10' ceiling)	**Quantity**	**U of M**	**Unit Cost**	**Total**
Install new drywall where needed	50	SF	$ 2.19	$ 109.50
Tape, Mud & Texture new drywall to match existing	108	SF	$ 12.50	$ 1,350.00
Install new baseboard - 5"	54	LF	$ 4.06	$ 219.24
Remove and replace door trim	1	Each	$ 178.62	$ 178.62
Seal and paint the walls, new baseboard and door trim	540	SF	$ 4.90	$ 2,646.00
Install new carpet pad- like kind/premium grade	185	SF	$ 1.31	$ 242.35
Install new carpet- like kind/premium grade (15%waste added)	213	SF	$ 6.69	$ 1,424.97
Subtotal:				**$ 6,170.68**

[redacted] Construction Inc.
License [redacted]
Tax ID [redacted]
[redacted]
[redacted]
[redacted]

Wine Closet (10' x 3' with 10' ceiling)	Quantity	U of M	Unit Cost	Total
Install new drywall where needed	52	SF	$ 2.19	$ 113.88
Tape, Mud & Texture new drywall to match existing	52	SF	$ 12.50	$ 650.00
Install new baseboard - 5"	26	LF	$ 4.06	$ 105.56
Seal and paint the walls, new baseboard and door trim	260	SF	$ 4.90	$ 1,274.00
Additional paint labor for specialty painting	8	Hour	$ 85.74	$ 685.92
Install new like-kind travertine tile	30	SF	$ 14.00	$ 420.00
Additional tile labor for patterned travertine	4	Hour	$ 103.00	$ 412.00
Custom made wine built-ins (allowance)	1	Each	$ 8,000.00	$ 8,000.00
Subtotal:				**$ 11,661.36**
Kitchen (24' x 23')	**Quantity**	**U of M**	**Unit Cost**	**Total**
Install new drywall where needed	45	SF	$ 2.19	$ 98.55
Tape, Mud & Texture new drywall to match existing	142	SF	$ 12.50	$ 1,775.00
Install new baseboard - 5"	71	LF	$ 4.06	$ 288.26
Seal and paint the walls, new baseboard and door trim	710	SF	$ 4.90	$ 3,479.00
Install new like-kind travertine tile	552	SF	$ 14.00	$ 7,728.00
Additional tile labor for patterned travertine	16	Hour	$ 103.00	$ 1,648.00
Install new lower/base cabinets - like kind	45	LF	$ 224.00	$ 10,080.00
Install new lower/base cabinets - like kind @ island	12	LF	$ 224.00	$ 2,688.00
Install new granite countertops with upgraded edge (2.25" ogee with double bullnose pop out) and 6" backsplash- allowance	205	SF	$ 156.73	$ 32,129.65
Install existing retro gas range - 36"	1	Each	$ 206.54	$ 206.54
Install existing built-in refrigerator	1	Each	$ 233.59	$ 233.59
Furnish and install new dishwasher	2	Each	$ 899.00	$ 1,798.00
Furnish and install new sink	2	Each	$ 505.00	$ 1,010.00
Furnish and install new faucet	2	Each	$ 300.00	$ 600.00
Furnish and install new garbage disposal	2	Each	$ 265.00	$ 530.00
Subtotal:				**$ 64,292.59**
Family Room (24' x 19')	**Quantity**	**U of M**	**Unit Cost**	**Total**
Install new drywall where needed	50	SF	$ 2.19	$ 109.50
Tape, Mud & Texture new drywall to match existing	172	SF	$ 12.50	$ 2,150.00
Install new baseboard - 5"	86	LF	$ 4.06	$ 349.16
Seal and paint the walls, new baseboard and door trim	860	SF	$ 4.90	$ 4,214.00
Install new like-kind travertine tile	472	SF	$ 14.00	$ 6,608.00
Additional tile labor for patterned travertine	16	Hour	$ 103.00	$ 1,648.00
Install new full height (8') cabinets - like kind	1	LS	$ 6,500.00	$ 3,600.00
Remove and replace door trim	1	Each	$ 178.62	$ 178.62
Subtotal:				**$ 18,857.28**
Rear Stairway (4' x 26')	**Quantity**	**U of M**	**Unit Cost**	**Total**
Add for step charge	26	Each	$ 8.00	$ 208.00
Install new carpet pad- like kind/premium grade	105	SF	$ 1.31	$ 137.55
Install new carpet- like kind/premium grade (15%waste added)	121	SF	$ 6.69	$ 809.49
Subtotal:				**$ 1,155.04**
Butler's Pantry (10' x 6')	**Quantity**	**U of M**	**Unit Cost**	**Total**
Install new drywall where needed	16	SF	$ 2.19	$ 35.04
Tape, Mud & Texture new drywall to match existing	80	SF	$ 12.50	$ 1,000.00
Install new baseboard - 5"	22	LF	$ 4.06	$ 89.32
Seal and paint the walls, new baseboard and door trim	260	SF	$ 4.90	$ 1,274.00
Install new like-kind travertine tile	60	SF	$ 14.00	$ 840.00
Additional tile labor for patterned travertine	4	Hour	$ 103.00	$ 412.00
Install new lower/base cabinets - like kind	10	LF	$ 224.00	$ 2,240.00
Install new granite countertops with upgraded edge (2.25" ogee with double bullnose popout) and 6" backsplash- allowance	25	SF	$ 156.73	$ 3,918.25
Remove and replace door trim	1	Each	$ 178.62	$ 178.62
Subtotal:				**$ 9,987.23**
Pantry (6' x 5')	**Quantity**	**U of M**	**Unit Cost**	**Total**
Install new drywall where needed	44	SF	$ 2.19	$ 96.36
Tape, Mud & Texture new drywall to match existing	44	SF	$ 12.50	$ 550.00
Install new baseboard - 5"	22	LF	$ 4.06	$ 89.32
Seal and paint the walls, new baseboard and door trim	220	SF	$ 4.90	$ 1,078.00
Install new like-kind travertine tile	30	SF	$ 14.00	$ 420.00
Additional tile labor for patterned travertine	4	Hour	$ 103.00	$ 412.00
Subtotal:				**$ 2,645.68**

[redacted] Construction Inc.
License [redacted]
Tax ID [redacted]
[redacted]
[redacted]
[redacted]

Hallway to Garage 5' x 9' (Offset: Hallway to Laundry Room 4' x 8' and closet under stairs 11' x 3'8")	Quantity	U of M	Unit Cost	Total
Install new drywall where needed	138	SF	$ 2.19	$ 302.22
Tape, Mud & Texture new drywall to match existing	138	SF	$ 12.50	$ 1,725.00
Install new baseboard - 5"	70	LF	$ 4.06	$ 284.20
Seal and paint the walls, new baseboard and door trim	701	SF	$ 4.90	$ 3,434.90
Install new like-kind travertine tile	123	SF	$ 14.00	$ 1,722.00
Additional tile labor for patterned travertine	8	Hour	$ 103.00	$ 824.00
Remove and replace fire rated door to garage	1	Each	$ 708.10	$ 708.10
Install new door handle with lockset handle and deadbolt	1	Each	$ 188.42	$ 188.42
Remove and replace door trim	3	Each	$ 178.62	$ 535.86
Subtotal:				**$ 9,724.70**
Office (13' x 11' with closet 11' x 3' and attached bathroom- see below)	**Quantity**	**U of M**	**Unit Cost**	**Total**
Tape, Mud & Texture new drywall to match existing	96	SF	$ 12.50	$ 1,200.00
Install new carpet pad- like kind/premium grade	143	SF	$ 1.31	$ 187.33
Install new carpet- like kind/premium grade (15%waste added)	165	SF	$ 6.69	$ 1,103.85
Install new baseboard - 5"	48	LF	$ 4.06	$ 194.88
Remove and replace door trim	1	Each	$ 178.62	$ 178.62
Seal and paint the walls, new baseboard and door trim	384	SF	$ 4.90	$ 1,881.60
Subtotal:				**$ 4,746.28**
Office Bathroom (9' x 5')	**Quantity**	**U of M**	**Unit Cost**	**Total**
Install new drywall	126	SF	$ 2.19	$ 275.94
Tape, Mud & Texture new drywall to match existing	50	SF	$ 12.50	$ 625.00
Install new like-kind tile	30	SF	$ 9.00	$ 270.00
Install new baseboard - 5"	14	LF	$ 4.06	$ 56.84
Remove and replaced door trim	1	Each	$ 178.62	$ 178.62
Seal and paint the walls, new baseboard and door trim	280	SF	$ 4.90	$ 1,372.00
Install new vanity with granite countertop and integrated sink- *Buckles was unable to see this item as it had been removed at the time of inspections	1	Each	$ 2,681.00	$ 2,681.00
Install new faucet	1	Each	$ 292.93	$ 292.93
Install new towel rack, toilet paper holder, etc.	2	Each	$ 62.46	$ 124.92
Install new bath tub	1	Each	$ 665.00	$ 665.00
Install new bath tub tile surround - up to 80 SF	1	LS	$ 2,417.00	$ 2,417.00
Install new bath tub enclosure	1	Each	$ 1,285.00	$ 1,285.00
Subtotal:				**$ 10,244.25**
Laundry Room (11' x 7'6")	**Quantity**	**U of M**	**Unit Cost**	**Total**
Install new insulation	20	SF	$ 0.77	$ 15.40
Install new drywall	114	SF	$ 2.19	$ 249.66
Tape, Mud & Texture new drywall to match existing	114	SF	$ 12.50	$ 1,425.00
Install new like-kind travertine tile	160	SF	$ 14.00	$ 2,240.00
Additional tile labor for patterned travertine	4	Hour	$ 103.00	$ 412.00
Install new baseboard - 5"	40	LF	$ 4.06	$ 162.40
Seal and paint the walls, new baseboard and door trim	264	SF	$ 4.90	$ 1,293.60
Install new upper cabinets	14	LF	$ 130.50	$ 1,827.00
Install new lower/base cabinets - like kind	14	LF	$ 224.00	$ 3,136.00
Install new like-kind (laminate) countertops	14	LF	$ 13.88	$ 194.32
Install new sink (including faucet)	1	Each	$ 505.00	$ 505.00
Re-set washing machine	1	Each	$ 103.85	$ 103.85
Re-set gas dryer	1	Each	$ 111.71	$ 111.71
Subtotal:				**$ 11,675.94**
Garage (21' x 39')	**Quantity**	**U of M**	**Unit Cost**	**Total**
Install new insulation	80	SF	$ 0.77	$ 61.60
Install new drywall	80	SF	$ 2.19	$ 175.20
Tape, Mud & Texture new drywall to match existing	80	SF	$ 12.50	$ 1,000.00
Install new baseboard - 5"	60	LF	$ 4.06	$ 243.60
Seal and paint the walls, new baseboard and door trim	600	SF	$ 4.90	$ 2,940.00
Install new epoxy flooring over existing - includes power wash preparation of garage floor	819	SF	$ 5.00	$ 4,095.00
Install new rubber flooring (like-kind)	819	SF	$ 3.35	$ 2,743.65
Subtotal:				**$ 11,259.05**

[redacted] Construction Inc.
License [redacted]
Tax ID [redacted]
[redacted]
[redacted]
[redacted]

Upstairs Hall 5' wide x 63' long				
Install new carpet pad- like kind/premium grade	315	SF	$ 1.31	$ 412.65
Install new carpet- like kind/premium grade (15%waste added)	362	SF	$ 6.69	$ 2,421.78
Upstairs Office 11'6" x 15'				
Install new carpet pad- like kind/premium grade	172.5	SF	$ 1.31	$ 225.98
Install new carpet- like kind/premium grade (15%waste added)	198	SF	$ 6.69	$ 1,324.62
Upstairs Playroom 15' x 18'				
Install new carpet pad- like kind/premium grade	270	SF	$ 1.31	$ 353.70
Install new carpet- like kind/premium grade (15%waste added)	310.5	SF	$ 6.69	$ 2,077.25
Upstairs Bedroom 1 & Bath (assume 170 SF + 50 SF)				
Install new carpet pad- like kind/premium grade	220	SF	$ 1.31	$ 288.20
Install new carpet- like kind/premium grade (15%waste added)	253	SF	$ 6.69	$ 1,692.57
Upstairs Bedroom 2 & Bath (assume 170 SF + 50 SF)				
Install new carpet pad- like kind/premium grade	220	SF	$ 1.31	$ 288.20
Install new carpet- like kind/premium grade (15%waste added)	253	SF	$ 6.69	$ 1,692.57
Upstairs Bedroom 3 & Bath (assume 170 SF + 50 SF)				
Install new carpet pad- like kind/premium grade	220	SF	$ 1.31	$ 288.20
Install new carpet- like kind/premium grade (15%waste added)	253	SF	$ 6.69	$ 1,692.57
Master Bedroom (assume 625 SF)				
Install new carpet pad- like kind/premium grade	625	SF	$ 1.31	$ 818.75
Install new carpet- like kind/premium grade (15%waste added)	719	SF	$ 6.69	$ 4,810.11
Master Bathroom/Closet (assume 500 SF)				
Install new carpet pad- like kind/premium grade	500	SF	$ 1.31	$ 655.00
Install new carpet- like kind/premium grade (15%waste added)	575	SF	$ 6.69	$ 3,846.75
Subtotal:				**$ 22,888.89**
Miscellaneous Items	**Quantity**	**U of M**	**Unit Cost**	**Total**
Exterior Hardscape - Pressure wash concrete at patio and pool deck areas - assume 10,000 SF	10000	SF	$ 0.25	$ 2,500.00
Allowance for stucco repairs at exterior doors	1	LS	$ 2,500.00	$ 2,500.00
Subtotal:				**$ 5,000.00**
Direct Cost Total				**$ 227,390.07**
General Conditions	**Quantity**	**U of M**	**Unit Cost**	**Total**
Allowance for permits 1% of Direct Cost	1	LS	$ 2,273.90	$ 2,273.90
Supervision	16	Week	$ 2,600.00	$ 41,600.00
Project Management	8	Week	$ 2,800.00	$ 22,400.00
Allowance for content manipulation (assume 4 laborers, 16 hours ea.)	64	Hour	$ 35.00	$ 2,240.00
Temp utilities (power, port-a-potty, etc.)	4	Month	$ 275.00	$ 1,100.00
Dumpster- 20 yards, 4 tons of debris	4	Each	$ 516.29	$ 2,065.16
Cleaning- Daily and general labor	640	Hour	$ 35.00	$ 22,400.00
Cleaning- Final	40	Hour	$ 35.00	$ 1,400.00
Subtotal:				**$ 95,479.06**
Total of Direct Cost and General Conditions				**$ 322,869.13**
Overhead and Administrative				
Contingency 10%				$ 32,286.91
Subtotal:				**$ 355,156.04**
Contractor's Overhead 10%				$ 35,515.60
Contractor's Profit 10%				$ 35,515.60
Overhead and Administrative Subtotals				**$ 71,031.21**
GRAND TOTAL				**$ 426,187.25**

Pete Fowler CONSTRUCTION Services, Inc.

Memo

Date:	08/22/2017
To:	[redacted]
From:	Pete Fowler Construction Services, Inc.
Project:	[redacted]
Regarding:	Estimate Analysis Memo
Note:	For mediation purposes only. Protected under all applicable evidence codes.

Project Overview

The project involves water intrusion at a custom home located in La Jolla, California. The property is located in a cul-de-sac on the top of a hill in the [redacted] Community. The home is two stories, totals 5,600 square feet, was built in 2002, and includes 5 bedrooms, 6 bathrooms, and a pool. The Owners of the property are [redacted].

On December 31, 2016, the [redacted] returned home from Christmas vacation to find the first floor flooded with sewage water. According to [redacted] Plumbing, the problem resulted from an overgrowth of roots in a sewage line located under one of the neighborhood's common area streets. Simply, sewage water from the community was backflowing into the [redacted] home due to the blockage. After opening the cleanouts, the toxic water then drained into the landscape and pool. The Owners are currently renting the house next door.

Estimate Analysis

[redacted] Construction, Inc. prepared a cost estimate dated 7/17/2017 for $426,187.25. PFCS prepared a cost estimate dated 5/5/2017 for $3,145,213.80.

SUMMARY / COMMENTS

1. Direct Costs - [redacted] Construction severely undervalues the specification level of the residence in regards to finishes (carpentry trim, cabinetry, wall finishes, flooring). Some pricing is approached as if it is an entry level production house.
2. Direct Costs - [redacted] Construction has very minimal scope of repair for upstairs areas.
3. Direct Costs - [redacted] Construction does not include exterior repairs.
4. Direct Costs - [redacted] Construction does not include any structural repairs (framing).

5. Direct Costs - [redacted] Construction does not budget for any mechanical repairs (plumbing, electrical, low voltage, etc.)
6. Direct Costs - [redacted] Construction avoids clean-up costs and abatement costs.
7. Indirect Costs - [redacted] Construction has appropriate percentage figures for General Conditions, Contractor's Overhead, and Profit; however, the numbers are significantly under-represented due to the low direct construction costs.
8. Indirect Costs - [redacted] Construction excludes a line item for Insurance & Bond (required on all jobs).
9. Indirect Costs - [redacted] Construction excludes third party construction management (required for this level of specification).
10. Indirect Costs - [redacted] Construction excludes engineering and architecture (required for miscellaneous issues that will arise throughout the remediation process).
11. Indirect Costs - [redacted] Construction excludes Testing, which is also required to assure remediation compliance.
12. Indirect Costs - [redacted] Construction excludes Relocation, which is a significant figure due to current relocation and rental as a result of water intrusion and waste contamination at the property.

DETAILED COMPARISON

For a line-by-line analysis of costs, see attached Estimate Analysis Matrix.

Estimate Analysis

#	Item	Description	PFCS	[redacted] Construction	Notes / Comments
1	B1004	Wood Framing & Hardware	$ 3,238.48	$ -	PFCS: Allowance for wood wall framing repairs due to water damage. [redacted]: No estimate provided for this line item.
2	B1010	Floor Construction	$ 3,238.48	$ -	PFCS: Allowance for wood floor framing repairs due to water damage. [redacted] No estimate provided for this line item.
3	B2011	Exterior Enclosure: Stucco / Plaster	$ 1,119.24	$ 2,500.00	PFCS: Repair isolated area where damaged. [redacted]: Allowance for stucco at exterior doors.
4	B2015	Exterior Wall Insulation	$ 1,369.24	$ 237.00	PFCS: Estimate includes installation of insulation at base of walls, with labor at 4 hours. [redacted]: Miscellaneous dollars for insulation at laundry room and garage.
5	B2030	Exterior Doors	$ 11,476.95	$ 1,243.96	PFCS: New exteior doors at numerous locations: materials: $8,000 and labor: $3,477. [redacted]: Replacement of (1) fire rated garage door / hardware. Doors were exposed to standing water and sewage. Require replacement.
6	B2060	Exterior Coatings (Paint)	$ 6,715.43	$ -	PFCS: Paint all exterior stucco and trim. [redacted]: No estimate provided for this line item. Any isolated stucco repairs will require the entire elevation to be painted.
7	C1010	Interior Partitions	$ -	$ -	
8	C1020	Interior Doors	$ 24,953.90	$ -	PFCS: Replacement of (17) impacted interior doors. Doors were exposed to standing water and sewage. Replacement required. [redacted] No estimate provided for this line item.
9	C1030	Interior Specialties: Wine Room	$ 38,907.81	$ 8,000.00	PFCS: Estimate includes a custom wine room, based on previous wine room specification. [redacted]: Wine Rack Allowance. You cannot get much of a wine room for $8,000.
10	C1031	Toilet & Bath Accessories	$ 15,000.00	$ 249.84	PFCS: Replace all toilet and bath accessories. [redacted]: Budgets $124 for powder room and $124 for office bathroom. [redacted] undervalues the specification level of the house. You cannot install entry level housing accessories into a custom house.
11	C1032	Counters	$ 52,953.90	$ 38,728.90	[redacted] underestimates the quantity of granite counters.
12	C1033	Cabinets	$ 120,861.71	$ 23,571.00	PFCS: Budget for a custom cabinetry package, based on original specifications. [redacted]: Budgets $224 per linear foot for lower / upper cabinetry or $112 per linear foot of cabinetry. Stock entry level cabinets are priced at $60-$200 per linear foot. Custom cabinetry costs $500-$1,200 per linear foot. [redacted] undervalues the specification level of the house.
13	C1035	Finish Carpentry & Architectural Woodwork	$ 12,215.43	$ 4,965.14	PFCS: Appropriately budgeted trim for a custom house. [redacted]: 5" baseboards and door trim at $4.06 per linear foot. [redacted] undervalues the specification level of the finishes.
14	C2000	Stairs (Interior and Exterior)	$ 16,953.90	$ -	PFCS: Restore interior and exterior stair finishes. [redacted]: Budgets $1,155 for stairs under Floor Finishes: Carpet.
15	C3000	Interior Finishes	$ 23,907.81	$ -	
16	C3010	Gypsum Wallboard & Interior Plaster	$ 25,430.86	$ 19,941.39	Pricing in general seems comparable. Gypsum Wallboard finishes are high end due to the specification level of the home.
17	C3011	Interior Paint	$ 23,907.81	$ 43,677.15	PFCS spreads out the interior finishes between C3000, C3010, C3011, and C3012. [redacted]: Budgets $4.90/SF for a total of 8,914SF. [redacted] undervalues the specification level of the finishes.

Estimate Analysis

#	Item	Description	PFCS	[redacted] Construction	Notes / Comments
18	C3012	Interior Wall Covering & Finishes	$ 10,215.43	$ 1,381.45	[redacted] undervalues the specification level of the house.
19	C3015	Tile & Stone Assemblies (Incl. Showers)	$ 36,953.90	$ -	PFCS: Estimate includes custom stone and tile finishes for bathrooms to match the original specification level. [redacted]: Surrounds included in D2000 with a very limited budget. Undervalues the specification level of the finishes.
20	C3021	Floor Finishes: Tile	$ 58,907.81	$ 33,826.25	PFCS: Estimate includes higher tile quality and installation due to custom patterns. [redacted]: Removal and installation of Travertine tile at $14 per square foot.
21	C3022	Floor Finishes: Wood	$ -	$ -	
22	C3023	Floor Finishes: Resilient	$ -	$ 6,838.65	PFCS: Did not estimate this line item. [redacted]: Garage epoxy flooring
23	C3024	Floor Finishes: Carpet	$ 30,953.90	$ 29,867.55	[redacted]: Approx. $8/SF for carpet pad / carpet (premium grade). Pricing in general seems comparable.
24	C3030	Ceiling Finishes	$ -	$ -	
25	D2000	Plumbing	$ 35,000.00	$ 7,158.10	[redacted]: Includes tub and shower surrounds only.
26	D2010	Plumbing Fixtures	$ 50,000.00	$ -	PFCS: Estimate includes high end fictures based on original specification. [redacted]: Included in D2000. Undervalues plumbing fixtures in general.
27	D3000	HVAC: Heating, Ventilating & Air-conditioning	$ 30,000.00	$ -	PFCS: Estimate includes damaged HVAC system replacement. [redacted]: No estimate provided for this item.
28	D3020	Heat Generating Systems (Incl. Fireplaces)	$ 22,500.00	$ -	PFCS: Estimate includes damaged fireplace and heat generation system replacement. [redacted]: No estimate provided for this item.
29	D5000	Electrical	$ 30,000.00	$ -	PFCS: Estimate includes damaged electrical system replacement. [redacted]: No estimate provided for this item.
30	D5030	Communications & Security	$ 24,000.00	$ -	PFCS: Estimate includes damaged low voltage system replacement. [redacted]: No estimate provided for this item.
31	E1000	Equipment and Appliances	$ 58,476.95	$ 2,453.69	PFCS: Budgets for new appliances throughout. [redacted]: Re-using most appliances
32	E2000	Furnishings	$ 131,000.00	$ 250.00	PFCS: Owner-damaged contents furniture allowance. [redacted]: Piano manipulation.
33	F2000	Selective Demolition	$ -	$ -	
34	F2020	Hazardous Components Abatement	$ 45,000.00	$ -	PFCS: Containment and abatement required by code. [redacted]: No estimate provided for this line item.
35	F3000	Cleaning & Waste Management	$ 115,000.00	$ -	PFCS: Hard and Soft Goods cleaning due to contamination. [redacted]: No estimate provided for this line item.
36	G1000	Site Preparations	$ -	$ -	
37	G1040	Hazardous Waste Remediation	$ 200,000.00	$ -	PFCS: Flood Management Services Bid to perform waste remediation due to contaminated surfaces. [redacted]: No estimate provided for this line item.
38	G2043	Fountains & Swimming Pools	$ 364,000.00	$ -	PFCS: Custom pool bid from ROW Custom Pools: Pool shell replacement due to contamination. [redacted]: No estimate provided for this line item.
39	G2050	Landscaping	$ 288,000.00	$ 2,500.00	PFCS: F.A. Construction bid to replace contaminated landscaping. [redacted]: Exterior hardscape cleaning allowance of $2,500.
40	G3020	Sanitary Sewer	$ -	$ -	
41					
42		**Direct Cost Total**	$ 1,912,258.94	$ 227,390.07	

Estimate Analysis

#	Item	Description	PFCS	[redacted] Construction	Notes / Comments
43					
44		General Conditions	$ 152,980.71	$ 95,479.07	A percentage based on direct cost. Percentages are comparable.
45		Subtotal	$ 2,065,239.65	$ 322,869.14	
46					
47		Contractor's Overhead	$ 165,219.17	$ 35,515.60	A percentage based on direct cost.
48		Contractor's Profit	$ 206,523.97	$ 35,515.60	A percentage based on direct cost.
49		Insurance & Bond	$ 41,304.79	$ -	PFCS: Common entry at 2%. [redacted]: Likely included under general conditions, but not specified. Required on all projects.
50		Subtotal	$ 2,478,287.58	$ 393,900.34	
51					
52		Contingency on Construction Costs	$ 123,914.38	$ 32,286.91	PFCS: Based on percentage of direct costs at 5%. [redacted]: Based on percentage of direct costs at 10%.
53		**Total Estimated Construction Costs**	$ 2,602,201.96	$ 426,187.25	
54					
55		**Other Project Costs:**			
56		Construction Management	$ 130,110.10	$ -	PFCS: Third party construction management, and owner representation, common for high end remediation projects. [redacted]: Did not include this line item in estimate.
57		Architectural/Drafting/ Design	$ 10,000.00	$ -	PFCS: Miscellaneous engineering and architectural support. [redacted]: Did not include this line item in estimate.
58		Engineering Design	$ 10,000.00	$ -	PFCS: Miscellaneous engineering and architectural support. [redacted]: Did not include this line item in estimate.
59		Testing & Inspection	$ 15,000.00	$ -	PFCS: Budget for third party testing and inspections to assure compliance to code and owner specifications. [redacted]: Did not include this line item in estimate.
60		Permits & Fees	$ 52,044.04	$ -	PFCS uses a 2% percentage, whereas Buckles is at 1%. Buckles $2,273 is not enough for the required permits associated with the remediation work.
61		Relocation	$ 300,000.00	$ -	PFCS: Current and ongoing living expenses and relocation. [redacted]: Did not include this item in estimate.
62		*Personal Belongings	$ -	$ -	
63		Subtotal of Other Project Costs	$ 517,154.14	$ -	
64					
65		Contingency on Other Project Costs	$ 25,857.71	$ -	PFCS: Required on all projects where other costs are present. [redacted]: Did not include this item in estimate.
66		**Total of Other Project Costs**	$ 543,011.84	$ -	
67					
68		**Total Estimated Project Cost**	**$ 3,145,213.80**	**$ 426,187.25**	

#	Description	Contractor #1		Notes
1	APPLIANCES			
2	CABINETRY			
3	CLEANING			
4	CONTENT MANIPULATION			
5	GENERAL DEMOLITION			
6	DOORS			
7	DRYWALL			
8	ELECTRICAL			
9	FLOOR COVERING - CARPET			
10	FLOOR COVERING - STONE			
11	FLOOR COVERING - CERAMIC TILE			
12	FLOOR COVERING - WOOD			
13	PERMITS AND FEES			
14	FINISH CARPENTRY -TRIMWORK			
15	FINISH HARDWARE			
16	FIRE PROTECTION SYSTEMS			
17	HEAT, VENT & AIR CONDITIONING			
18	INSULATION			
19	LABOR ONLY			
20	LIGHT FIXTURES			
21	MARBLE - CULTURED OR NATURAL			
22	MIRRORS & SHOWER DOORS			
23	PLUMBING			
24	PAINTING			
25	TILE			
26	WINDOW TREATMENT			
27	HOA COMPLIANCE			
28	HIDDEN WORK			
29				
30	**Direct Total**	$ -	$ -	
31	Permits and Fees			
32	Material Sales Tax			
33	Overhead			
34	Profit			
35	**Total**	$ -	$ -	

4. BURDEN



39

4. BURDEN

What's Burden Include?



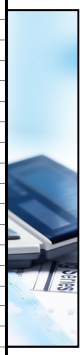




4. BURDEN

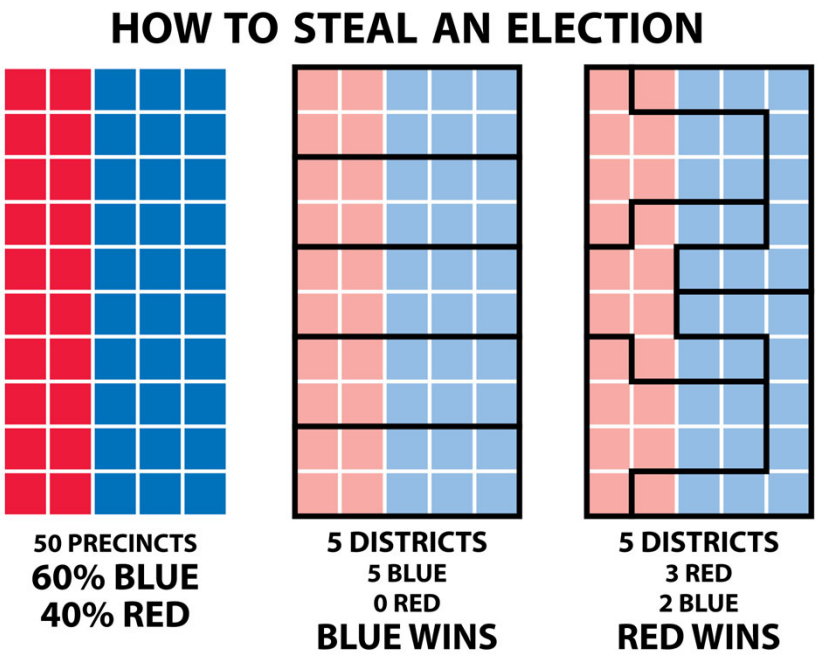
Burden Calculations

27		**Direct Cost Total**				$	228,053.42	$ 345,636.20
28								
29		General Conditions		8.00%		$	18,244.27	
30		Subtotal				$	246,297.69	
31								
32		Contractor's Overhead		8.00%		$	19,703.82	
33		Contractor's Profit		10.00%		$	24,629.77	
34		Insurance & Bond		2.00%		$	4,925.95	
35		Subtotal				$	295,557.23	
36								
37		Contingency on Construction Costs		5.00%		$	14,777.86	
38		**Total Estimated Construction Costs**				$	310,335.09	
39								
40		**Other Project Costs:**						
41		Construction Management		5.00%		$	15,516.75	
42		Architectural/Drafting/Design		1	ls	$	15,000.00	
43		Engineering Design	None					
44		Testing & Inspection	None					
45		Permits & Fees		1.00%		$	3,103.35	
46		Relocation		1	ls	$	-	
47		Subtotal of Other Project Costs				$	33,620.11	
48								
49		Contingency on Other Project Costs		5.00%		$	1,681.01	
50		**Total of Other Project Costs**				$	35,301.11	
51								
52		**Total Estimated Project Cost**				**$**	**345,636.20**	**$ 345,636.20**

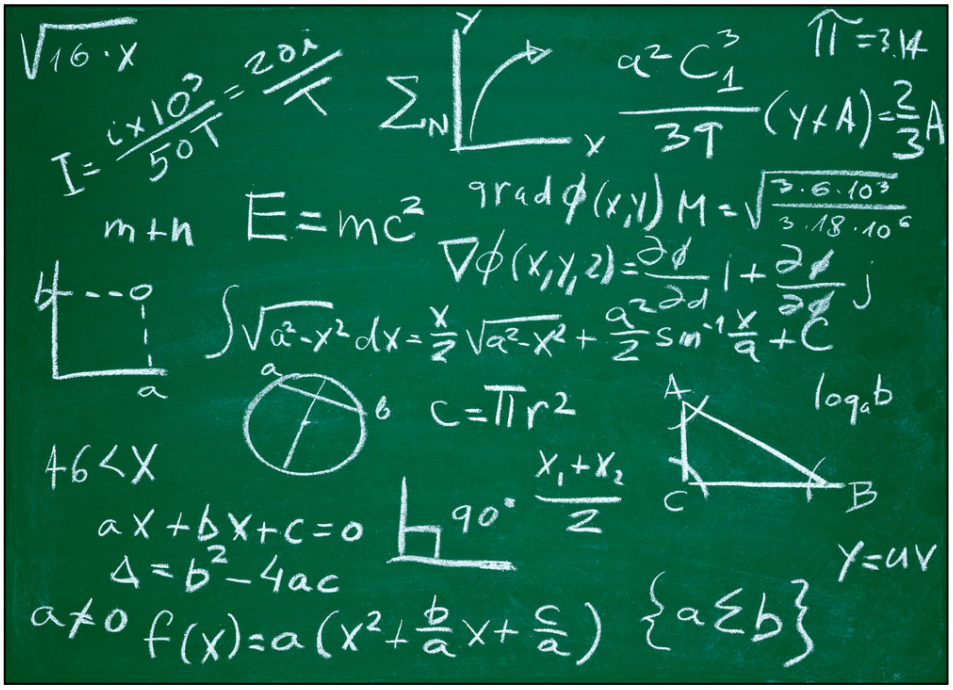


4. BURDEN

Burden: Why Do We Care?



Burden: Fun with Numbers



Estimate Summary

#	Item	Description	Notes	Qty	Unit	Direct Cost Unit	Direct Cost Total	Project Cost Total
1	B1001	Concrete Structure & Reinforcing	Grind conc. & add curb	183	SF	$ 13.90	$ 2,543.21	$ 4,676.09
2	B1004	Wood Framing & Hardware	Repair damaged frmg.	1	LS	$ 5,104.61	$ 5,104.61	$ 9,385.62
3	B1010	Cementitious Underlayment	At exterior decks	620	SF	$ 4.85	$ 3,008.52	$ 5,531.63
4	B2011	Exterior Enclosure: Stucco / Plaster	Demo and replace	14	Locs	$ 1,763.84	$ 24,693.78	$ 45,403.37
5	B2015	Exterior Wall Insulation	At windows & doors	2,617	SF	$ 1.81	$ 4,741.40	$ 8,717.81
6	B2017	Exterior Guardrail	At deck repairs	1	LS	$ 1,629.84	$ 1,629.84	$ 2,996.71
7	B2018	Exterior Wall Accessories	Remove & reset signs	3	Locs	$ 817.92	$ 2,453.76	$ 4,511.62
8	B2020	Windows		10	EA	$ 3,646.71	$ 36,467.13	$ 67,050.51
9	B2030	Exterior Doors		4	Locs	$ 558.34	$ 2,233.35	$ 4,106.37
10	B2040	Exterior Wall Flashing & Sheet metal	At windows & doors	1	LS	$12,005.73	$ 12,005.73	$ 22,074.40
11	B2050	Joint Sealants	At windows & doors	12	Locs	$ 137.55	$ 1,650.54	$ 3,034.78
12	B2060	Exterior Coatings (Paint)	Paint the whole bldg.	1	LS	$12,284.19	$ 12,284.19	$ 22,586.40
13	B3002	Low Slope Roofing	At clearstory window	1	Locs	$ 378.48	$ 378.48	$ 695.90
14	B3004	Roof Flashing & Trim	At clearstory window	1	LS	$ 222.53	$ 222.53	$ 409.15
15	B3007	Waterproof Decks (Horizontal WP)		803	SF	$ 17.36	$ 13,939.09	$ 25,629.20
16	C1035	Finish Carpentry		1	LS	$ 2,376.56	$ 2,376.56	$ 4,369.68
17	C3010	Gypsum Wallboard	Drywall at all windows and ext. doors, plus content manipulation & protection	2,517	SF	$ 9.27	$ 23,320.94	$ 42,879.19
18	C3011	Interior Paint	Many rooms	11,111	SF	$ 1.32	$ 14,633.07	$ 26,905.19
19	C3012	Interior Wall Covering & Finishes	Wallpaper	1,127	SF	$ 1.85	$ 2,086.87	$ 3,837.03
20	C3023	Floor Finishes: Resilient	2 halls with damage	1,326	SF	$ 3.99	$ 5,294.32	$ 9,734.44
21	C3024	Floor Finishes: Carpet	1 room with damage	130	SF	$ 6.43	$ 836.07	$ 1,537.24
22	D5000	Electrical	For all repairs	1	LS	$ 5,800.00	$ 5,800.00	$ 10,664.21
23	F1000	Special Construction	Allowance for mold	1	LS	$10,000.00	$ 10,000.00	$ 18,386.56
24	G2030	Pedestrian Paving	R-Elev. Deck tile demo	183	SF	$ 1.83	$ 334.06	$ 614.22
25	G2050	Landscaping	Fix at project complete	1	LS	$ 2,280.32	$ 2,280.32	$ 4,192.72
26		**Direct Cost Total**					$ 190,318.36	$ 349,930.02
27								
28		General Conditions	See GC sht.	17.71%			$ 33,706.95	
29		Subtotal					$ 224,025.31	
30								
31		Contractor's Overhead		8.00%			$ 17,922.02	
32		Contractor's Profit		10.00%			$ 22,402.53	
33		Insurance & Bond		2.00%			$ 4,480.51	
34		Subtotal					$ 268,830.37	
35								
36		Contingency on Construction Costs		5.00%			$ 13,441.52	
37		**Total Estimated Construction Costs**					$ 282,271.89	
38								
39		**Other Project Costs:**						
40		Construction Management		5.00%			$ 14,113.59	
41		Architectural/Drafting/Design	Architect	1		ls	$ 20,000.00	
42		Engineering Design	Structural	1		ls	$ 7,500.00	
43		Testing & Inspection	QC	1		ls	$ 20,000.00	
44		Permits & Fees		1.00%			$ 2,822.72	
45		Relocation	Not Incl.	1		ls	$ -	
46		Subtotal of Other Project Costs					$ 64,436.31	
47								
48		Contingency on Other Project Costs		5.00%			$ 3,221.82	
49		**Total of Other Project Costs**					$ 67,658.13	
50								
51		**Total Estimated Project Cost**					**$ 349,930.02**	**$ 349,930.02**

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Labor

	Code	Unit	Rate	Description																
				Laborer			Carpenter			Conc. Fin.			Roofer			Asst. Project	Project			
	#			App	Jou	For.	App	Jou	For.	App	Jou	For.	App	Jou	For.	Manager	Manager	Supt.	Average	
1	Cost Unburdened			15.00	20.00	25.00	18.00	32.50	40.00	20.00	30.00	40.00	20.00	30.00	40.00	35.00	60.00	50.00	31.70	
2	Health Care	$ -	/Hr	0.00	0.00	0 00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3	Vacation	$ -	/Hr	0.00	0.00	0 00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4	Education	$ -	/Hr	0.00	0.00	0 00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5	FICA	7.65%	%	1.15	1.53	1.91	1.38	2.49	3.06	1.53	2.30	3.06	1.53	2.30	3 06	2.68	4.59	3.83	2.43	
6	State	0.00%	%	0.00	0.00	0 00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0 00	0.00	0.00	0.00	0.00	
7	Federal Unemp	0.80%	%	0.12	0.16	0 20	0.14	0.26	0.32	0.16	0.24	0.32	0.16	0.24	0 32	0.28	0.48	0.40	0.25	
8	FUTA	8.00%	%	1.20	1.60	2 00	1.44	2.60	3.20	1.60	2.40	3.20	1.60	2.40	3 20	2.80	4.80	4.00	2.54	
9	SDI	0.00%	%	0.00	0.00	0 00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0 00	0.00	0.00	0.00	0.00	
10	State Unemp	3.50%	%	0.53	0.70	0 88	0.63	1.14	1.40	0.70	1.05	1.40	0.70	1.05	1.40	1.23	2.10	1.75	1.11	
11	Workman's Comp BLW $21	48.00%	%	7.20	9.60		8.64			9.60						1.75	3.00		6.63	
12	Workman's Comp ABV $21	16.00%	%			4 00		5.20	6.40		4.80	6.40						8.00	5.80	
13	Roofer BLW $21	75.00%	%										15.00						15.00	
14	Roofer ABV $21	50.00%	%											15.00	20.00				17.50	
15	Vehicle	0.00%	%	0.00	0.00	0 00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0 00	0.00	0.00	0.00	0.00	
16	Liability Insurance	10.00%	%	1.50	2.00	2 50	1.80	3.25	4.00	2.00	3.00	4.00	2.00	3.00	4 00	3.50	6.00	5.00	3.17	
17																				
18	Burdened $/Hr.			26.69	35.59	36.49	32.03	47.43	58.38	35.59	43.79	58.38	40.99	53.99	71.98	47.23	80.97	72.98	49.50	
19	Percent Overhead			0.44	0.44	0.31	0.44	0.31	0.31	0.44	0.31	0.31	0.51	0.44	0.44	0.26	0.26	0.31	0.37	
20	Labor rates from CA Department of Labor 1st Qtr 2014																			
21	App = 25 percentile Jou = Mean For = 75 percentile																		**Crew Cost**	**With**
22																			**20%**	**O&P**
23	**Demolition**																			
24	**D 1**					1													$ 36.49	$ 43.79
25	**D 2**				1	1													$ 72.08	$ 86.49
26	**D 3**			1	1	1													$ 98.77	$118.52
27	**D 4**			2	2	1													$ 161.05	$193.26
28	**D 5**			1	1			1	1										$ 168.10	$201.72
29	**D 6**			1	2			2	1										$ 251.12	$301.34
30	**D 7**			2	2	1		2	1										$ 314.30	$377.16
31	**D 8**			2	3	1		3	1										$ 397.32	$476.79
32	**Site Work**																			
33	**SW 1**					1													$ 36.49	$ 43.79
34	**SW 2**				1	1													$ 72.08	$ 86.49
35	**SW 3**			1	1	1													$ 98.77	$118.52
36	**SW 4**			2	2	1													$ 161.05	$193.26
37	**SW 5**			1	1			1	1										$ 168.10	$201.72
38	**SW 6**			1	2			2	1										$ 251.12	$301.34
39	**SW 7**			2	2	1		2	1										$ 314.30	$377.16
40	**SW 8**			2	3	1		3	1										$ 397.32	$476.79
41	**SW 9**			2	3	1		3	1		1								$ 441.11	$529.33
42	**Concrete**																			
43	**C 1**										1								$ 43.79	$ 52.54
44	**C 2**									1	1								$ 79.38	$ 95.25
45	**C 3**									1	2	1							$ 181.54	$217.85
46	**C 4**							1			3								$ 178.79	$214.55
47	**C 5**				1			2			3								$ 261.81	$314.18
48	**C 6**			1	1		1	1		1	3								$ 308.69	$370.43
49	**Rough Carpentry**																			
50	**RC 1**								1										$ 58.38	$ 70.06
51	**RC 2**						1		1										$ 90.41	$108.49
52	**RC 3**						1	1	1										$ 137.84	$165.41
53	**RC 4**						1	2	1										$ 185.28	$222.33
54	**RC 5**						2	2	1										$ 217.31	$260.77
55	**RC 6**						3	3	1										$ 296.77	$356.13
56	**RC 7**				1		2	2	1										$ 252.90	$303.48
57	**RC 8**				2		2	2	1										$ 288.49	$346.19
58	**Finish Carpentry**																			
59	**FC 1**								1										$ 58.38	$ 70.06
60	**FC 2**						1		1										$ 90.41	$108.49
61	**FC 3**						1	1	1										$ 137.84	$165.41
62	**FC 4**						1	2	1										$ 185.28	$222.33
63	**FC 5**						2	2	1										$ 217.31	$260.77
64	**Roofing**																			
65	**RF 1**												1						$ 40.99	$ 49.19
66	**RF 2**													1					$ 53.99	$ 64.78
67	**RF 3**														1				$ 71.98	$ 86.38
68	**RF 4**												1	2					$ 148.96	$178.75
69	**RF 5**												2	2					$ 189.95	$227.94
70	**RF 6**												2	2	1				$ 261.93	$314.32

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General Conditions

#	Item	Description	Notes/Ref.	Qty	Unit	Labor	Material	Other	Subc.	Labor	Material	Other	Subc.	Total Cost	Total Item
1		GENERAL CONDITIONS:													
2		On-Site Supervision Staff								-	-	-	-	-	18,974
3	1	Superintendent	1/2 time	3	mo	$6,325				18,974	-	-	-	18,974	
4															
5		Temporary Facilities - Set Up & Removal								-	-	-	-	-	2,224
6	1	Office Trailer(s)			ls					-	-	-	-	-	
7	2	Temporary Structures			ls					-	-	-	-	-	
8	3	Enclosure(s) & Compound								-	-	-	-	-	
9	4	Fencing Site	3 months	1	ls			$2,224.20		-	-	2,224	-	2,224	
10															
11		Temporary Facilities - Monthly:								-	-	-	-	-	2,250
12	1	Office Trailer(s)			mo					-	-	-	-	-	
13	2	Storage Containers	Storage in garage		mo					-	-	-	-	-	
14	3	Electrical		3	mo			$400.00		-	-	1,200	-	1,200	
15	4	Toilets	Use downstairs restroom		mo					-	-	-	-	-	
16	5	Delivery & maintenance													
17	6	Vandal Anchors													
18	7	Water - Construction								-	-	-	-	-	
19	8	Monthly Usage		3	mo			$200.00		-	-	600	-	600	
20	9	Office Supplies			mo					-	-	-	-	-	
21	10	Office Equipment			mo					-	-	-	-	-	
22	11	Copier(s)	1 each		mo					-	-	-	-	-	
23	12	Computer(s)	1 each		mo					-	-	-	-	-	
24	13	Phone(s)	1 cell	3	mo			$150.00		-	-	450	-	450	
25	14	Printer(s)	1 each		mo					-	-	-	-	-	
26	15	Furniture	1 each		mo					-	-	-	-	-	
27	16	Marker Boards, etc			mo					-	-	-	-	-	
28															
29		Clean-Up								-	-	-	-	-	6,659
30	1	General Clean Up - Daily								-	-	-	-	-	
31	2	Labor	App laborer 1 hr/ day	3	mo	$ 729.75				2,189	-	-	-	2,189	
32	3	Dumpsters	Additional disposal cost included in line items	1	ea			$750.00		-	-	750	-	750	
33	4	Dump Fees			ea					-	-	-	-	-	
34	5	General Clean Up - Final								-	-	-	-	-	
35	6	Labor			mo					-	-	-	-	-	
36	7	Dumpsters			ea					-	-	-	-	-	
37	8	Dump Fees			ea					-	-	-	-	-	
38	9	Cleaning Service	Crew = 3 man w/ equipment @ $110.00/hr + materials	4	days		$50.00		$880 00	-	200	-	3,520	3,720	
39															
40		Scaffolding	Included in line items							-	-	-	-	-	
41		Dumpsters	See work							-	-	-	-	-	
42															

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General Conditions

#	Item	Description	Notes/Ref.	Qty	Unit	Labor	Material	Other	Subc.	Labor	Material	Other	Subc.	Total Cost	Total Item
43		Small Tools								-	-	-	-	-	
44	1	Equipment			mo					-	-	-	-	-	
45	2	Safety & First Aid								-	-	-	-	-	
46	3	Shovels, wheelbarrows, etc.			ls					-	-	-	-	-	
47															
48		Safety								-	-	-	-	-	350
49	1	Program Set-up		1	ls		$150.00			-	150	-	-	150	
50	2	Monitoring & Enforcement								-	-	-	-	-	
51	3	Safety Consultant			mo					-	-	-	-	-	
52	4	Safety Inspector			mo					-	-	-	-	-	
53	5	First Aid Boxes								-	-	-	-	-	
54	6	Set-up/Purchase		1	ea		$100.00			-	100	-	-	100	
55	7	Monthly Inspection & Supplies		2	mo		$50.00			-	100	-	-	100	
56															
57		Project Documentation, Job Photo Log								-	-	-	-	-	1,750
58	1	Construction Plans & Specifications		3	set		$250.00			-	750	-	-	750	
59	2	Project Surveys								-	-	-	-	-	
60	3	Pre-Construction			ls					-	-	-	-	-	
61	4	Ongoing			ls					-	-	-	-	-	
62	5	Post Construction			ls					-	-	-	-	-	
63	6	Progress Photos		3	mo			$200.00		-	-	600	-	600	
64	7	Job Closeout								-	-	-	-	-	
65	8	As-builts		1	ls			$400.00		-	-	400	-	400	
66	9	Punch List(s)	Included in Supt time		ls					-	-	-	-	-	
67	10	Certificate of Occupancy			ls					-	-	-	-	-	
68															
69		Repairs / Protection / Cutting & Patching								-	-	-	-	-	
70	1	Public Street Repairs			ls					-	-	-	-	-	
71	2	Protect New Work During Construction			ls					-	-	-	-	-	
72	3	Repair New Work During Construction			ls					-	-	-	-	-	
74		Scheduling								-	-	-	-	-	
75	1	Original Set-up	Included in Supt time		ls					-	-	-	-	-	
76	2	Monthly update			mo					-	-	-	-	-	
78		Lifting & Material Movement								-	-	-	-	-	1,500
79	1	Forklifts			mo					-	-	-	-	-	
80	2	Other	man lift	1	ls			1500		-	-	1,500	-	1,500	
81															
82		TOTAL GENERAL CONDITIONS								21,163	1,300	7,724	3,520	33,707	33,707

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Calls, Sub-Bids, Materials

#	1	2	3
Date:	10/20/2014	10/20/2014	10/20/2014
Time:	1050	1345	1240
Sub-Contractor:	Allrite Scaffolding	South Bay Scaffolding	A-1 Fencing
Material Supplier:			
Contact:	Rich Richardson	Mike Martinez	Maurilio
Street Address:	2328 249th St, Lomita, CA 90717	15209 S Avalon Blvd, Gardena, CA 90248	Wilmington, CA 90744
Phone #:	(310) 539-5348 / (m) 310-6	(310) 965-9565	(310) 549-1121
Fax #:			
Email:			
Material:	Scaffolding 350 lf,	Scaffolding 350 lf,	Fencing 200lf
Description	200 lf 3 tier, 150 lf 4 tier, 50 lf pedestrian protection	200 lf 3 tier, 150 lf 4 tier, 50 lf pedestrian protection	200lf 6ft panel 10lf gate wind screen
Bidding Sections:	B 2011	B 2011	
Bidding Section #'s:			
Bid Amount:		8500.00 + 85.00 /day after 60 + 350 overhead protection	1722.00 + 150.00 / mth after 1st 6 mth 1918.00 12mth 2153.00
With Tax and Delivery:		12925	2224.2
With Waste:			
Per Unit (SF, LF, CY, etc.):		$ 64.63	$ 11.12
Inclusions:			

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5. MATCH GAME



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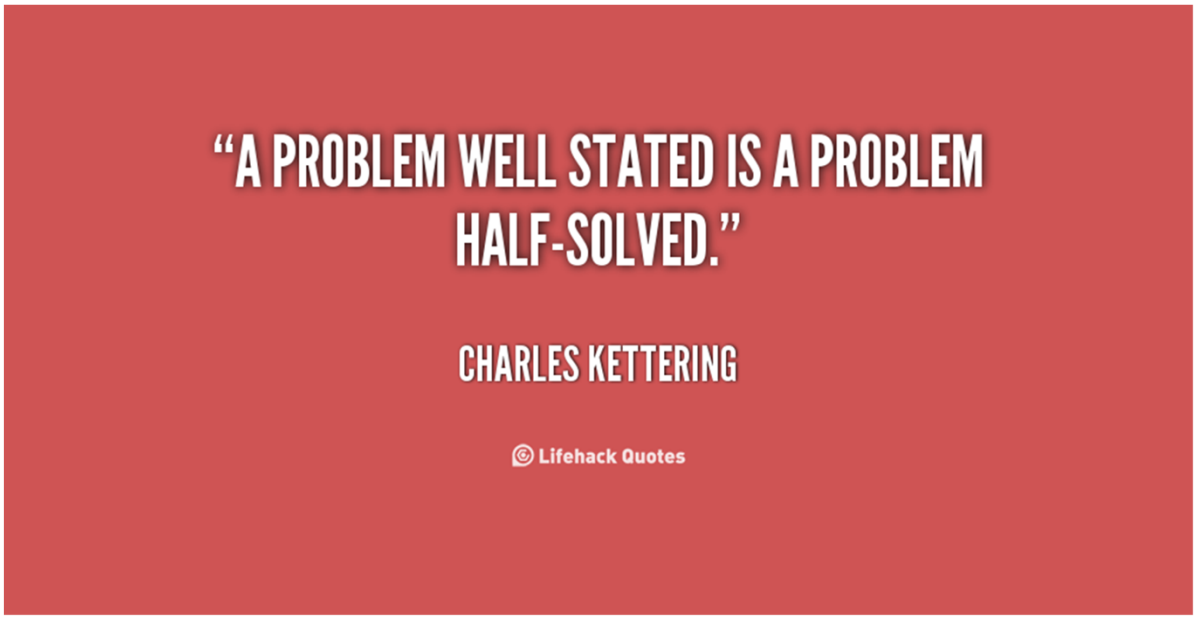
5. MATCH GAME

Analyzing Multiple Estimates



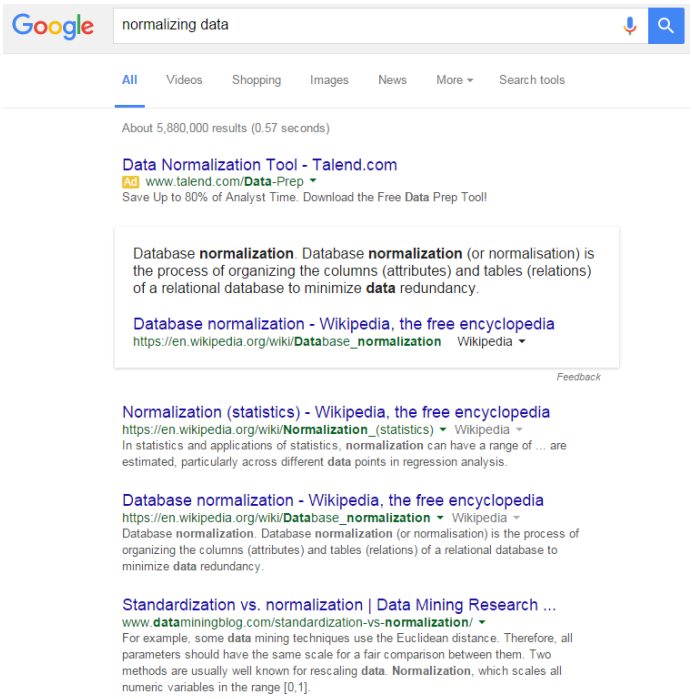
5. MATCH GAME

A Sensible List



5. MATCH GAME

"Normalizing"





Read about industry impacts on our blog at www.petefowler.com

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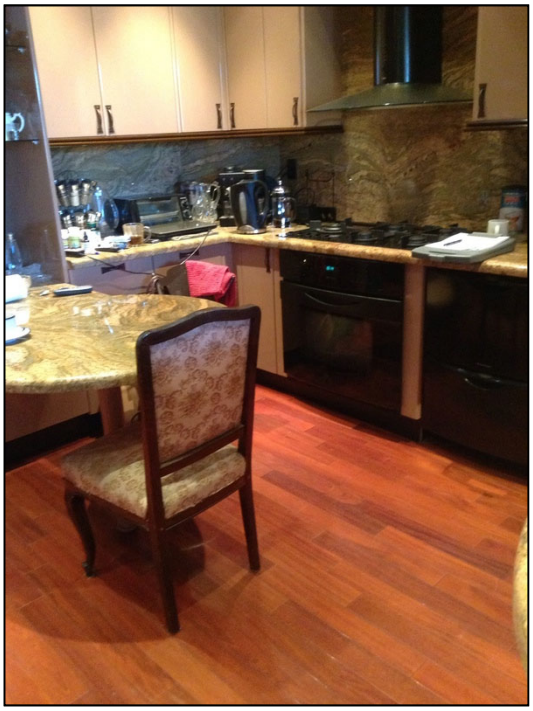
5. MATCH GAME

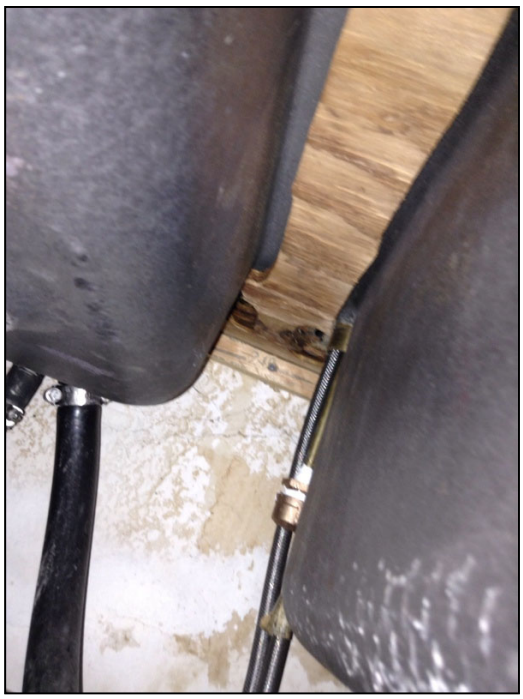
Case Study: The Project





5. MATCH GAME

Case Study: The Problem



5. MATCH GAME

Case Study: The Solution

9/6/2016 [redacted] Page 1 of 1

Estimate Comparison

#	Description	PFCS Estimate	[redacted] Estimate	Difference	Notes
1	Counters	$ 5,782.22	$ 9,172.93	$ 3,390.71	*$67.38/sf for granite
2	Cabinets	$ 5,648.68	$ 44,103.05	$ 38,454.37	*Remove and Replace all cabinets in Kitchen *Remove and replace cabinets in dining room
3	Interior Paint	$ 5,927.81	$ 4,693.76	$ (1,234.05)	
4	Floor Finishes	$ 12,864.41	$ 33,528.02	$ 20,663.61	*$16.16 for Exotic species floor *Remove and Replace Floor sheathing in all rooms
5	Plumbing	$ 1,209.88	$ 335.02	$ (874.86)	
6	Electrical	$ 809.88	$ 338.66	$ (471.22)	
7	Appliances		$ 650.82	$ 650.82	*Remove and reset all appliances
8	Cleaning		$ 456.04	$ 456.04	* Included in line items in PFCS estimate
9	Cont Packing, handling, storage		$ 19,294.15	$ 19,294.15	*Remove and store furniture and all content at warehouse *Money for Lab work and evaluation of clothing/furniture
10	General Demo		$ 12,723.94	$ 12,723.94	*Demo all wood flooring and all cabinets in kitchen and dining room
11	Doors		$ 150.01	$ 150.01	
12	Drywall		$ 321.63	$ 321.63	*Small repair in kitchen area near sink, incl in PFCS in Cabinets
13	Ceramic Tile Floor		$ 255.51	$ 255.51	
14	Framing/Rough Carpentry		$ 3,396.72	$ 3,396.72	
15	Labor Only		$ 3,451.71	$ 3,451.71	
16	Paneling/Wood wall Finish		$ 3,364.87	$ 3,364.87	*Wood paneling in the kitchen area
17	Window Treatment		$ 160.91	$ 160.91	* Incl. in Paint in PFCS Estimate
18	**SUB-TOTAL**	$ 32,242.88	$ 136,397.75	$ 104,154.87	
19					
20	Pertmits & Fees	$ 433.68	$ 18.19	$ (415.49)	
21	Materials Sales Tax	$ -	$ 5,935.69	$ 5,935.69	*This is included in line items in PFCS estimate
22	General Conditions	$ 1,612.14			
23	Insurance and Bond	$ 677.10			
24	Contingency on Construction Cost	$ 2,065.16			
25	Overhead	$ 3,385.50	$ 14,235.43	$ 10,849.93	
26	Profit	$ 3,385.50	$ 14,235.43	$ 10,849.93	
27					
28	**TOTAL**	**$ 43,801.96**	**$ 170,822.49**	**$ 131,374.93**	

[redacted]

January 25, 2015

PROPOSAL

[redacted]
Los Angeles, CA 90024

According to a site walk through with the owner, the following work needs to be done as a result of water damage at the address specified above:

DEMOLITION $15,500.00
Demolition of damaged drywall on bedroom ceilings and walls, walk-in closet, tiles and drywall of master bathroom shower, all hardwood in bedrooms and hallways, and all marble in living room, dining room and kitchen.
(labor + materials)

HAUL AWAY $17,750.00
Removal and haul away of all debris following complete demolition.
(labor + materials)

FLOORING
Installation of damaged tiles and marble throughout the unit. $32,175.00
(labor + materials)
Installation of damaged hardwood throughout the bedrooms $ 6,072.00
and hallways (labor + materials)

DRYWALL
Installation of drywall, taping, and sanding in preparation for painting $18,727.00
(labor + materials)

ELECTRICAL
Repair of all damaged light fixtures and receptacles $ 3,300.00
(labor + materials)

PLUMBING All necessary plumbing throughout unit (labor + materials)	$ 2,300.00
TILE WORK Installation of new floor and wall tiles to replace damaged tiles in master bathroom, as well as hotmopping of shower floor in preparation of tile installation. (labor + materials)	$ 7,250.00
BASE MOLDINGS Installation of new base moldings in the place of the damaged moldings. (labor + materials)	$ 5,750.00
CROWN MOLDINGS Installation of new crown modlings in the place of the damaged moldings. (labor + materials)	$ 1,950.00
PAINT Painting of interior walls and ceiling throughout unit. (labor + materials)	$11,750.00
BATHROOM CABINETS Installation of new bathroom cabinets to replace damaged cabinetry (labor + materials)	$ 9,424.00
DOORS Installation of new doors, casings, and hardware throughout (labor + materials)	$ 1,250.00
OVERHEAD + PROFIT	$39,958.00
GRAND TOTAL	**$ 173,153.00**

[total unit square footage: 2,940 square feet)

Regards,

[redacted]

General Contractor

[redacted]

Estimate Comparison

#	Description	PFCS Estimate	[redacted] Estimate	Difference	Notes
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21	Materials Sales Tax	$ -	$ 5,935.69	$ 5,935.69	*This is included in line items in PFCS estimate
22	General Conditions	$ 1,612.14			
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25	Overhead	$ 3,385.50	$ 14,235.43	$ 10,849.93	
26	Profit	$ 3,385.50	$ 14,235.43	$ 10,849.93	
27					
28	**TOTAL**	**$ 43,801.96**	**$ 170,822.49**	**$ 131,374.93**	

[redacted] Residence

Estimate Comparison

#	Description	[redacted]	[redacted]	[redacted]	[redacted]	Notes	PFCS Project Cost	Notes
1	APPLIANCES	$ 39.79			$ 644.21	[redacted] is cleaning appliances as separate line items.	$ 85.42	PFCS cleaning appliances
2	CABINETRY	$ 3,457.13	$ 9,424.00	$ 9,500.00	$ 8,044.73	[redacted] and [redacted] have higher cost for cabinets, NCA is only replacing Master Bath vanity. [redacted] is replacing cabinets in Master Bedroom. [redacted] is removing and reinstalling all cabinets with additional costs for cleaning and polishing.	$ 2,121.44	Replacing Vanity
3	CLEANING	$ 721.51	$ -	$ -	$ 6,427.26	[redacted] is cleaning every door, cabinet, window cover as separate items.	$ 1,217.18	Cleaning all accessories, countertops and other items not replaced
4	CONTENT MANIPULATION	$ 709.24			$ 40,000.00	[redacted] is allocating $40,000 + $8,0000 (O&P) for content manipulation as a bid item.	$ 498.26	Moving out remaining items
5	GENERAL DEMOLITION	$ 2,705.38	$ 33,250.00	$ 32,400.00	$ 12,854.32	[redacted] is removing laminate flooring in all bedrooms. [redacted] is removing only Master Bedroom. [redacted] removing all 24" stone flooring [redacted] is not removing any stone flooring. [redacted] has large cost of Haul Away. [redacted] is removing walls, flooring and Granite in Bath 3, removing GWB in Master Bed, closet and 2 bedrooms, removing tile in living room and all damaged base and hardwood flooring. [redacted] is removing walls, ceiling, insulation, flooring in all room except for baths 2 and 3.	$ 7,648.50	Demo and haul away
6	DOORS	$ 713.80	$ 1,250.00	$ 2,400.00	$ 265.64	[redacted] remove and replace damaged doors and frames	$ 294.30	New master bath door only
7	DRYWALL	$ 4,455.85	$ 18,727.00	$ 17,800.00	$ 8,669.34	[redacted] provides no detail as to how much or where drywall is removed and replaced. [redacted] is R&R drywall at Master bedroom, closet, Hallway and Master Bath. [redacted] install drywall in M. Bed, closet, bathrooms, hallway and partial living room. [redacted] is removing drywall, cleaning framing at walls and ceilings at living room, dining room, kitchen, master bedroom. Replacing insulation at walls and ceilings.	$ 5,163.88	Removing and replacing drywall in Master areas
8	ELECTRICAL	$ 156.98	$ 3,300.00	$ 4,500.00	$ 1,316.25	[redacted] and [redacted] do not give quantity of damaged fixtures. [redacted] is removing and reinstall or replacing light fixtures and includes new bulbs.	$ 205.43	Replacing Light, fan and vent combo
9	FLOOR COVERING - CARPET	$ 266.90					$ 859.65	Master closet
10	FLOOR COVERING - STONE	$ 4,731.93	$ 32,175.00	$ 31,800.00	$ 34,530.87	[redacted] is R&R all stone flooring, [redacted] is regrouting and cleaning stone flooring. [redacted] install tile at living room (1200sf) also includes tile work in bathrooms including granite wall. [redacted] is removing all flooring except in baths 2 & 3. They are leveling the floor in all locations where flooring is removed.	$ 4,547.56	Regrout and buff/polish
11	FLOOR COVERING - CERAMIC TILE				$ 3,710.74			
12	FLOOR COVERING - WOOD	$ 1,112.37	$ 6,072.00	$ 8,400.00	$ 5,771.88	[redacted] is R&R all laminate flooring, [redacted] is R&R only Master Bedroom Flooring. [redacted] R&R flooring in bedroom and hallways. [redacted] R&R all laminate flooring.	$ 2,724.37	Replacing master bedroom
13	PERMITS AND FEES				$ 1,600.00			
14	FINISH CARPENTRY -TRIMWORK	$ 1,345.66	$ 7,700.00	$ 9,200.00	$ 6,122.80	R[redacted] is replacing all trim, [redacted] is Replacing only master bedroom and closet, hallway and adjacent living room wall to master bathroom. [redacted] Crown molding and baseboards. [redacted] is removing and replacing crown molding and baseboards.	$ 1,346.68	New base only in master areas
15	FINISH HARDWARE	$ 70.62	$ -	$ -	$ 162.22		$ 630.35	bath accessories
16	FIRE PROTECTION SYSTEMS	$ 37.02	$ -	$ -	$ 106.74		$ 179.94	New escutcheons and reset smoke detector in master area

For mediation purposes only.
Protected by all applicable evidence codes.

#	Description	[redacted]	[redacted]	[redacted]	[redacted]	Notes	PFCS Project Cost	Notes
17	HEAT, VENT & AIR CONDITIONING	$ 108.20	$ -	$ -	$ 357.87		$ 94.87	Exhaust fan in master bath
18	INSULATION				$ 4,048.47	[redacted] is replacing insulation where drywall is removed at walls and ceiling.		
19	LABOR ONLY	$ 644.96	$ -	$ -	$ 3,767.79		$ -	Included in other categories
20	LIGHT FIXTURES	$ 325.39	$ -	$ -	$ 1,652.32	[redacted] is removing and reinstall ceiling fixtures.	$ 129.84	Recessed lighting in master area
21	MARBLE - CULTURED OR NATURAL	$ 730.63	$ -	$ -			$ -	Included in cabinets
22	MIRRORS & SHOWER DOORS	$ 696.92	$ -	$ -	$ 400.42		$ 94.87	Detach and reset in master bath
23	PLUMBING	$ 547.99	$ 2,300.00	$ 5,600.00	$ 2,025.05	[redacted] is working on all plumbing, [redacted] is only doing plumbing at areas of repair. [redacted] Remove and reinstall all plumbing fixtures. [redacted] Remove and reinstall all plumbing fixtures, P-traps and supply lines.	$ 1,191.99	New bath and shower fixtures, master bath sink drains
24	PAINTING	$ 4,211.74	$ 11,750.00	$ 16,700.00	$ 16,862.35	[redacted] is $0.70/sf. [redacted] has painting the entire unit, $1.96/sf. [redacted] is $2.75/sf [redacted] is $1.33/sf.	$ 8,002.06	Repaint whole unit
25	TILE	$ 6,683.12	$ 7,250.00		$ 3,168.71	Cost is very similar for tile work [redacted] included in Stone floor covering	$ 5,946.22	Master bath tile
26	WINDOW TREATMENT	$ 285.26			$ 282.16		$ -	
27	HOA COMPLIANCE	$ -	$ -	$ 10,000.00		1 hour every afternoon for covering and cleaning hallways	$ -	
28	HIDDEN WORK	$ -	$ -	$ 10,000.00			$ -	
29								
30	**Direct Total**	$ 34,758.39	$ 133,198.00	$ 158,300.00	$ 162,792.14		$ 42,982.80	
31	Permits and Fees				$ 8.79	[redacted] is charging for CA lumber fee.		
32	Material Sales Tax	$ 1,111.80			$ 4,048.61	Tax included in material costs in each item		Tax included in material costs in each item
33	Overhead	$ 3,587.02			$ 16,684.77	Included below [redacted] has a 10% mark up.		Included below
34	Profit	$ 3,587.02	$ 39,958.00	$ 35,500.00	$ 16,684.77	[redacted] has a 20% mark up. [redacted] has 30% mark up for overhead and profit. [redacted] has 23% mark up. [redacted] has a 10% markup	$ 18,293.48	PFCS includes 43% burden - overhead, profit, general conditions and contingency
35	**Total**	$ 43,044.23	$ 173,156.00	$ 193,800.00	$ 200,219.08		$ 61,276.28	

Estimate Comparison

#	Description	Contractor #1	Contractor #2	Notes
1	APPLIANCES			
2	CABINETRY			
3	CLEANING			
4	CONTENT MANIPULATION			
5	GENERAL DEMOLITION			
6	DOORS			
7	DRYWALL			
8	ELECTRICAL			
9	FLOOR COVERING - CARPET			
10	FLOOR COVERING - STONE			
11	FLOOR COVERING - CERAMIC TILE			
12	FLOOR COVERING - WOOD			
13	PERMITS AND FEES			
14	FINISH CARPENTRY -TRIMWORK			
15	FINISH HARDWARE			
16	FIRE PROTECTION SYSTEMS			
17	HEAT, VENT & AIR CONDITIONING			
18	INSULATION			
19	LABOR ONLY			
20	LIGHT FIXTURES			
21	MARBLE - CULTURED OR NATURAL			
22	MIRRORS & SHOWER DOORS			
23	PLUMBING			
24	PAINTING			
25	TILE			
26	WINDOW TREATMENT			
27	HOA COMPLIANCE			
28	HIDDEN WORK			
29				
30	**Direct Total**	$ -	$ -	
31	Permits and Fees			
32	Material Sales Tax			
33	Overhead			
34	Profit			
35	**Total**	$ -	$ -	

6. XACTIMATE



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6. XACTIMATE

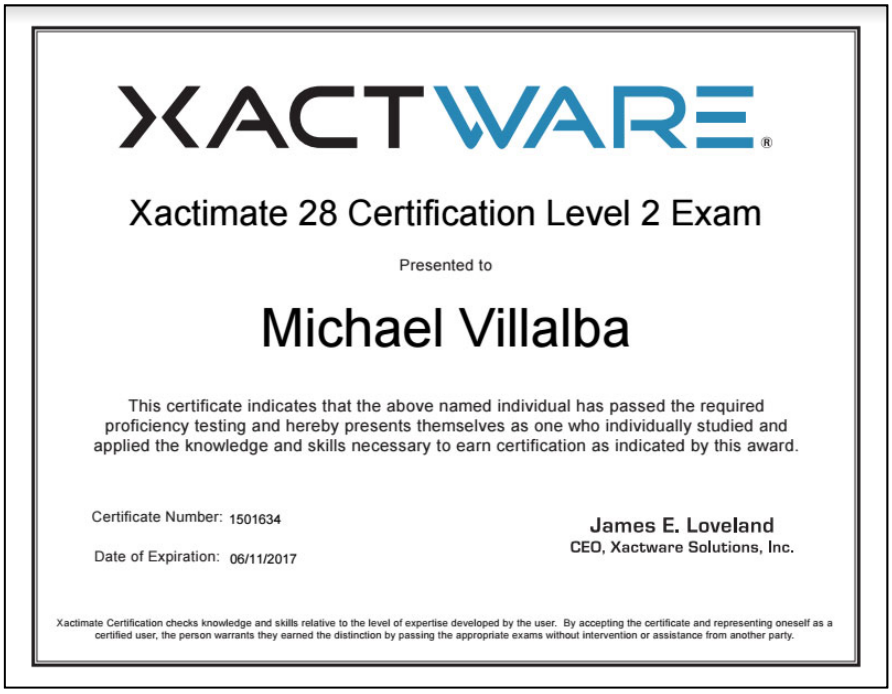
Insurance Industry Standards

- Market Dominance
- Room-By-Room
- Price vs. Cost
- Training & Certification



6. XACTIMATE

Certification



XACTWARE®

Xactimate 28 Certification Level 2 Exam

Presented to

Michael Villalba

This certificate indicates that the above named individual has passed the required proficiency testing and hereby presents themselves as one who individually studied and applied the knowledge and skills necessary to earn certification as indicated by this award.

Certificate Number: 1501634

Date of Expiration: 06/11/2017

James E. Loveland
CEO, Xactware Solutions, Inc.

Xactimate Certification checks knowledge and skills relative to the level of expertise developed by the user. By accepting the certificate and representing oneself as a certified user, the person warrants they earned the distinction by passing the appropriate exams without intervention or assistance from another party.

6. XACTIMATE

Pros



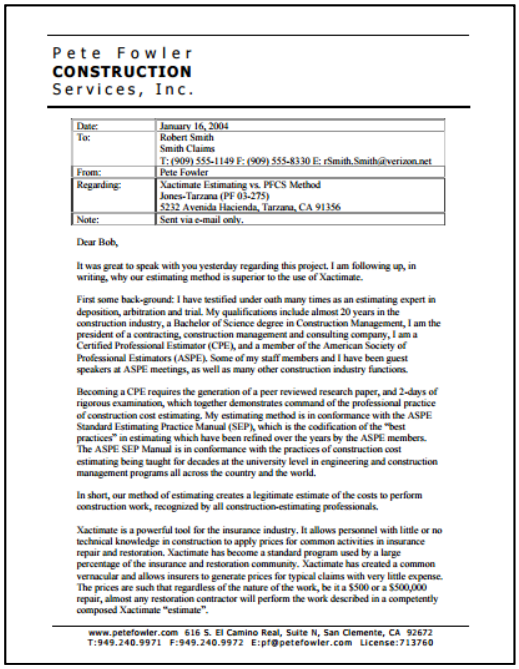
6. XACTIMATE

Cons



6. XACTIMATE

PFCS Position



Pete Fowler
CONSTRUCTION
Services, Inc.

Date:	January 16, 2004
To:	Robert Smith Smith Claims T: (909) 555-1149 F: (909) 555-8330 E: rSmith.Smith@verizon.net
From:	Pete Fowler
Regarding:	Xactimate Estimating vs. PFCS Method Jones-Tarzana (PF 03-275) 5232 Avenida Hacienda, Tarzana, CA 91356
Note:	Sent via e-mail only.

Dear Bob,

It was great to speak with you yesterday regarding this project. I am following up, in writing, why our estimating method is superior to the use of Xactimate.

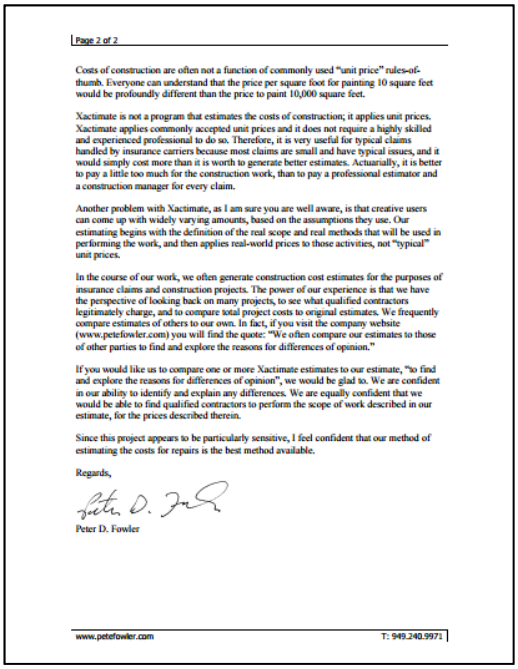
First some back-ground: I have testified under oath many times as an estimating expert in deposition, arbitration and trial. My qualifications include almost 20 years in the construction industry, a Bachelor of Science degree in Construction Management, I am the president of a contracting, construction management and consulting company, I am a Certified Professional Estimator (CPE), and a member of the American Society of Professional Estimators (ASPE). Some of my staff members and I have been guest speakers at ASPE meetings, as well as many other construction industry functions.

Becoming a CPE requires the generation of a peer reviewed research paper, and 2-days of rigorous examination, which together demonstrates command of the professional practice of construction cost estimating. My estimating method is in conformance with the ASPE Standard Estimating Practice Manual (SEP), which is the codification of the "best practices" in estimating which have been refined over the years by the ASPE members. The ASPE SEP Manual is in conformance with the practices of construction cost estimating being taught for decades at the university level in engineering and construction management programs all across the country and the world.

In short, our method of estimating creates a legitimate estimate of the costs to perform construction work, recognized by all construction-estimating professionals.

Xactimate is a powerful tool for the insurance industry. It allows personnel with little or no technical knowledge in construction to apply prices for common activities in insurance repair and restoration. Xactimate has become a standard program used by a large percentage of the insurance and restoration community. Xactimate has created a common vernacular and allows insurers to generate prices for typical claims with very little expense. The prices are such that regardless of the nature of the work, be it a $500 or a $500,000 repair, almost any restoration contractor will perform the work described in a competently composed Xactimate "estimate".

www.petefowler.com 616 S. El Camino Real, Suite N, San Clemente, CA 92672
T:949.240.9971 F:949.240.9972 E:pf@petefowler.com License:713760



Page 2 of 2

Costs of construction are often not a function of commonly used "unit price" rules-of-thumb. Everyone can understand that the price per square foot for painting 10 square feet would be profoundly different than the price to paint 10,000 square feet.

Xactimate is not a program that estimates the costs of construction; it applies unit prices. Xactimate applies commonly accepted unit prices and it does not require a highly skilled and experienced professional to do so. Therefore, it is very useful for typical claims handled by insurance carriers because most claims are small and have typical issues, and it would simply cost more than it is worth to generate better estimates. Actuarially, it is better to pay a little too much for the construction work, than to pay a professional estimator and a construction manager for every claim.

Another problem with Xactimate, as I am sure you are well aware, is that creative users can come up with widely varying amounts, based on the assumptions they use. Our estimating begins with the definition of the real scope and real methods that will be used in performing the work, and then applies real-world prices to those activities, not "typical" unit prices.

In the course of our work, we often generate construction cost estimates for the purposes of insurance claims and construction projects. The power of our experience is that we have the perspective of looking back on many projects, to see what qualified contractors legitimately charge, and to compare total project costs to original estimates. We frequently compare estimates of others to our own. In fact, if you visit the company website (www.petefowler.com) you will find the quote: "We often compare our estimates to those of other parties to find and explore the reasons for differences of opinion."

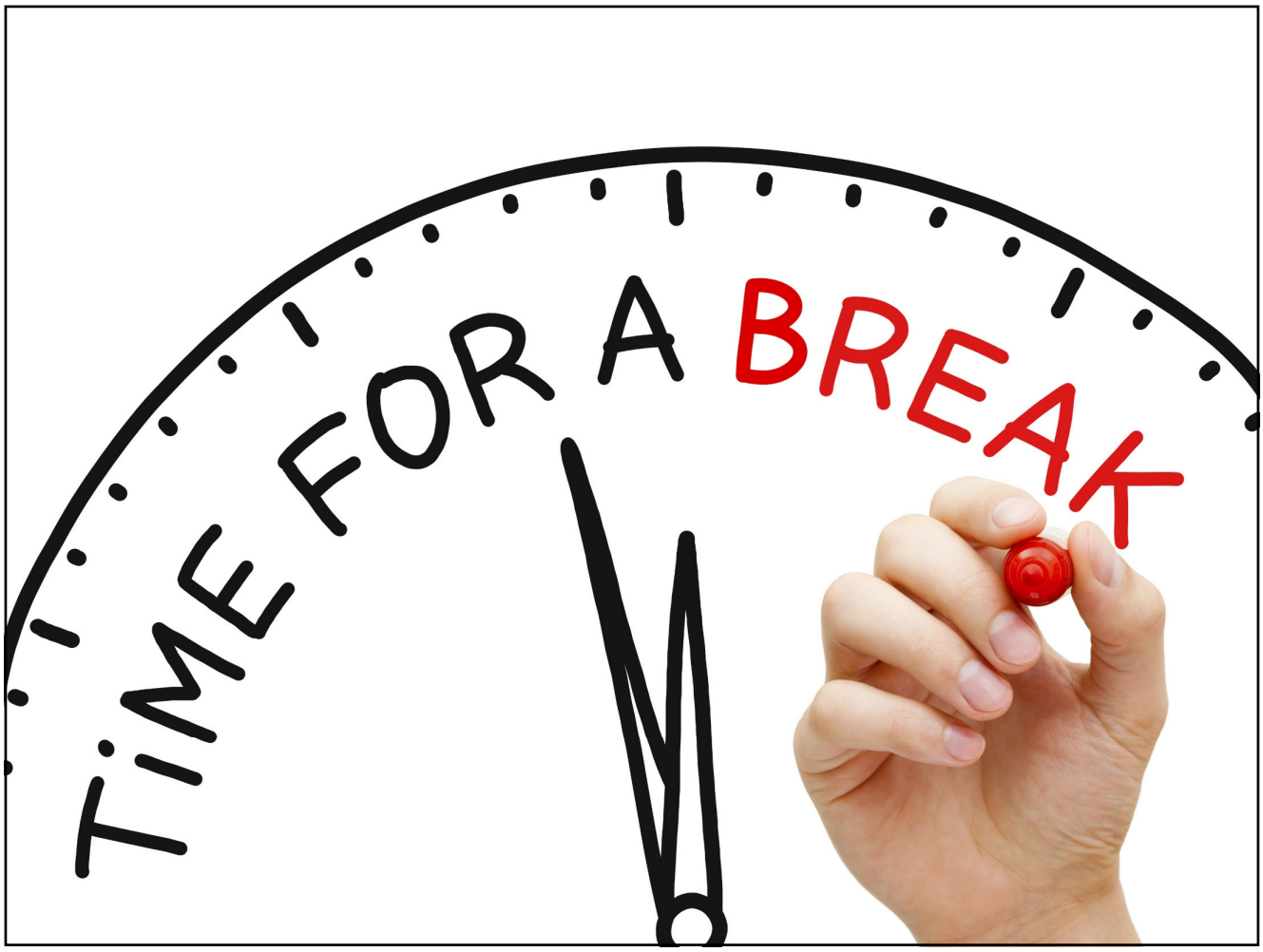
If you would like us to compare one or more Xactimate estimates to our estimate, "to find and explore the reasons for differences of opinion", we would be glad to. We are confident in our ability to identify and explain any differences. We are equally confident that we would be able to find qualified contractors to perform the scope of work described in our estimate, for the prices described therein.

Since this project appears to be particularly sensitive, I feel confident that our method of estimating the costs for repairs is the best method available.

Regards,

Peter D. Fowler

www.petefowler.com T: 949.240.9971



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Part 2 Introduction

WHY THIS IS IMPORTANT

- Budgeting & Estimating for Construction, Maintenance, Repairs & Clams is for anyone who needs to understand construction budgets and cost estimates.
- The process begins with deciding on the level of detail and exactitude required. It continues with deciding on and organizing the elements that will be included in the estimate, so that the scope of work and methods of construction can be documented and easily referenced, summarized and understood. Application of prices to the scope and method of construction is next.
- Ultimately an estimator will format, coordinate peer review, finalize and publish the completed estimate. And often the estimator or another professional will summarize, analyze or compare budgets and estimates for the purpose of quality decision-making.

Pete Fowler
CONSTRUCTION
Services, Inc.

Date:	January 16, 2004
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Costs of construction are often not a function of commonly used “unit price” rules-of-thumb. Everyone can understand that the price per square foot for painting 10 square feet would be profoundly different than the price to paint 10,000 square feet.

Xactimate is not a program that estimates the costs of construction; it applies unit prices. Xactimate applies commonly accepted unit prices and it does not require a highly skilled and experienced professional to do so. Therefore, it is very useful for typical claims handled by insurance carriers because most claims are small and have typical issues, and it would simply cost more than it is worth to generate better estimates. Actuarially, it is better to pay a little too much for the construction work, than to pay a professional estimator and a construction manager for every claim.

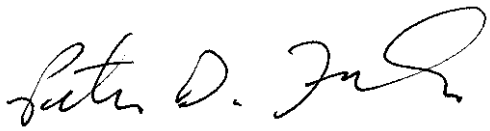
Another problem with Xactimate, as I am sure you are well aware, is that creative users can come up with widely varying amounts, based on the assumptions they use. Our estimating begins with the definition of the real scope and real methods that will be used in performing the work, and then applies real-world prices to those activities, not “typical” unit prices.

In the course of our work, we often generate construction cost estimates for the purposes of insurance claims and construction projects. The power of our experience is that we have the perspective of looking back on many projects, to see what qualified contractors legitimately charge, and to compare total project costs to original estimates. We frequently compare estimates of others to our own. In fact, if you visit the company website (www.petefowler.com) you will find the quote: “We often compare our estimates to those of other parties to find and explore the reasons for differences of opinion.”

If you would like us to compare one or more Xactimate estimates to our estimate, “to find and explore the reasons for differences of opinion”, we would be glad to. We are confident in our ability to identify and explain any differences. We are equally confident that we would be able to find qualified contractors to perform the scope of work described in our estimate, for the prices described therein.

Since this project appears to be particularly sensitive, I feel confident that our method of estimating the costs for repairs is the best method available.

Regards,



Peter D. Fowler

[redacted]

Insured:	[redacted]	Home:	[redacted]
Property:	[redacted]	Business:	[redacted]
	LOS ANGELES, CA 90024		
Home:	[redacted]		
	LOS ANGELES, CA 90024-4526		
Claim Rep.:	[redacted]		
Claimant:	[redacted]	[redacted]	[redacted]
	[redacted]		
	LOS ANGELES, CA 90024		
Estimator:	[redacted]		

Claim Number: [redacted] **Policy Number:** [redacted] **Type of Loss:** WATER-OTHER

Date Contacted:	12/4/2014		
Date of Loss:	10/29/2014	Date Received:	11/3/2014
Date Inspected:	2/27/2015	Date Entered:	12/8/2014 2:10 PM
Date Est. Completed:	6/2/2015 2:37 PM		
Price List:	CALA8X_MAR15		
	Restoration/Service/Remodel		
Estimate:	[redacted]		

[redacted]

We have prepared this estimate to assist you in determining what is necessary to restore your property to its pre-loss condition. You can provide the estimate to your chosen contractor.

We have issued a payment to you in the amount of $40,731.83 for the covered restoration cost less your policy deductible $0.00 and depreciation, or in other words **Actual Cash Value**. Actual Cash Value represents the value of your damaged covered property as it was just before the loss.

We are available to assist you if you decide to make repairs. It is your choice whether or not you have repairs completed. If you choose to make repairs, you will want to carefully consider who you hire to perform the repairs. If you do not have a preferred contractor we may be able to help through our partnership with **Innovation Managed Property Network**. Benefits include:

· **Convenience** - The Innovation call center is available 24/7, 365 days per year.
· **Peace of mind** - All contractors pass background checks and are experienced, certified, licensed, insured and bonded.
· **Quality** - Innovation and their contractors are committed to customer satisfaction, and adhere to Safeco's estimating guidelines.
· **Speed** - Innovation's network is committed to contacting policyholders within one hour and the contractor of their choice will inspect their home within 48 hours.
· **Guarantees** - All work comes with a **three-year warranty**, (Roofing carries a 5 year warranty) and [redacted] monitors customer satisfaction of all contractors to provide policyholders with the best choice of service providers.

Remember, the choice of contractors is always yours.

Contact us immediately if additional damages are found or if your contractor estimate is higher than our estimate, and we will work with you and your contractor to confirm how these factors might change our estimate. **It is important that we have the opportunity to address additions or changes to the estimate before you have those repairs completed, otherwise the policy may not provide coverage for the additional expenses.**

Want to know more?
Common homeowners' claims questions - our pamphlet may answer questions you have after your property has been inspected.

You can visit our website to view this document [redacted]

Contact us if you have additional questions or needs.

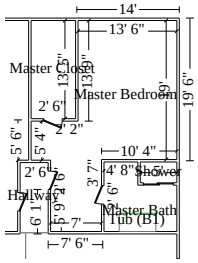
Please refer to your insurance policy for actual policy language and definitions.

[redacted]

Main Level

Main Level

DESCRIPTION	QUANTITY	UNIT PRICE	TAX	O&P	RCV	DEPREC.	ACV
1. Dumpster load - Approx. 20 yards, 4 tons of debris	1.00 EA	515.37	0.00	103.07	618.44	<0.00>	618.44
2. General Laborer - per hour	**16.00 HR**	**40.31**	**0.00**	**128.99**	**773.95**	**<0.00>**	**773.95**
Additional labor to remove debris and haul materials to and from 3rd floor through service elevator. During specified working hours (9 am-4:30 PM)							
Total: Main Level			**0.00**	**232.07**	**1,392.40**	**0.00**	**1,392.40**



Master Bedroom **Height: 8'**

730.00	SF Walls	358.83	SF Ceiling
1088.83	SF Walls & Ceiling	358.83	SF Floor
39.87	SY Flooring	90.00	LF Floor Perimeter
97.50	LF Ceil. Perimeter		

Door	**2' 6" X 6' 8"**	**Opens into MASTER_CLOSE**
Door	**2' 6" X 6' 8"**	**Opens into HALLWAY**
Door	**2' 6" X 6' 8"**	**Opens into MASTER_BATH**

DESCRIPTION	QUANTITY	UNIT PRICE	TAX	O&P	RCV	DEPREC.	ACV
72. Detach & Reset Door knob - interior	3.00 EA	23.54	0.00	14.12	84.74	<0.00>	84.74
3. Refrigerator - Remove & reset	1.00 EA	39.79	0.00	7.96	47.75	<0.00>	47.75
Refrigerator located in bedroom							
4. Contents - move out then reset - Large room	1.00 EA	82.47	0.00	16.49	98.96	<0.00>	98.96
73. R&R Interior door unit	**3.00 EA**	**167.98**	**25.69**	**105.93**	**635.55**	**<0.00>**	**635.55**
74. R&R Bifold door set - full louvered - Double	**1.00 EA**	**270.73**	**13.63**	**56.87**	**341.23**	**<0.00>**	**341.23**
5. R&R 1/2" drywall - hung, taped, ready for texture	**1,088.83 SF**	**1.96**	**43.12**	**435.45**	**2,612.67**	**<0.00>**	**2,612.67**
6. Texture drywall - machine	**1,088.83 SF**	**0.36**	**2.94**	**78.98**	**473.90**	**<0.00>**	**473.90**
75. R&R Smoke detector	1.00 EA	56.84	1.85	11.74	70.43	<6.17>	64.26
7. R&R Snaplock Laminate - per specs from independent analysis	358.83 SF	4.10	11.63	296.57	1,779.39	<38.75>	1,740.65
Material price will be supplemented once ITEL results are received							
8. R&R Baseboard - 3 1/4" MDF w/profile	90.00 LF	3.33	8.34	61.61	369.65	<27.81>	341.84
76. R&R Escutcheon only	**3.00 EA**	**18.18**	**1.76**	**11.26**	**67.55**	**<0.00>**	**67.55**
77. R&R Heat/AC register - Mechanically attached	2.00 EA	23.78	1.84	9.88	59.28	<6.14>	53.15
78. R&R Recessed light fixture	2.00 EA	111.77	5.61	45.83	274.98	<18.71>	256.27

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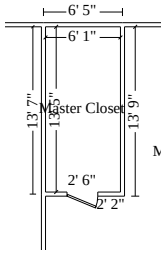
CONTINUED - Master Bedroom

DESCRIPTION	QUANTITY	UNIT PRICE	TAX	O&P	RCV	DEPREC.	ACV
9. Paint baseboard - two coats	90.00 LF	1.06	0.81	19.24	115.45	<2.70>	112.75
10. Paint full lvrd bifold door set - slab - 2 coats -per side	2.00 EA	59.40	2.21	24.20	145.21	<7.36>	137.85
11. Paint door slab only - 2 coats (per side)	3.00 EA	23.05	1.69	14.17	85.01	<5.64>	79.37
12. Paint door/window trim & jamb - 2 coats (per side)	3.00 EA	23.07	0.97	14.04	84.22	<3.24>	80.98
13. Paint door or window opening - 1 coat (per side)	2.00 EA	15.58	0.47	6.33	37.95	<1.56>	36.39
14. Seal/prime then paint the walls and ceiling (2 coats)	1,088.83 SF	0.79	14.70	174.98	1,049.85	<49.00>	1,000.85
Due to the type and condition of the paint, sealing and painting of the walls is necessary for a uniform appearance							
15. Window blind - PVC - 2" - 14.1 to 20 SF - High grade	**2.00 EA**	**142.63**	**17.42**	**60.54**	**363.21**	**<0.00>**	**363.21**
Totals: Master Bedroom			**154.66**	**1,466.17**	**8,797.01**	**167.08**	**8,629.92**



Master Closet **Height: 8'**

295.33	SF Walls	81.62	SF Ceiling
376.95	SF Walls & Ceiling	81.62	SF Floor
9.07	SY Flooring	36.50	LF Floor Perimeter
39.00	LF Ceil. Perimeter		

Door **2' 6" X 6' 8"** **Opens into MASTER_BEDRO**

DESCRIPTION	QUANTITY	UNIT PRICE	TAX	O&P	RCV	DEPREC.	ACV
16. Contents - move out then reset - Extra large room	1.00 EA	164.96	0.00	32.99	197.95	<0.00>	197.95
Large amount of clothes and shoes in closet							
17. R&R 1/2" drywall - hung, taped, ready for texture	**376.95 SF**	**1.96**	**14.93**	**150.75**	**904.50**	**<0.00>**	**904.50**
18. Texture drywall - machine	**376.95 SF**	**0.36**	**1.02**	**27.34**	**164.06**	**<0.00>**	**164.06**
19. R&R Carpet	81.62 SF	3.04	17.19	53.06	318.38	<57.30>	261.08
20. R&R Carpet pad	81.62 SF	0.57	3.38	9.98	59.88	<11.26>	48.62
79. Closet shelf and rod package - Detach & reset	**73.00 LF**	**10.39**	**0.00**	**151.69**	**910.16**	**<0.00>**	**910.16**
21. Seal & paint closet shelving	36.50 LF	6.72	3.78	49.81	298.87	<12.59>	286.28
22. Paint door slab only - 2 coats (per side)	1.00 EA	23.05	0.55	4.72	28.32	<1.83>	26.49
23. Paint door/window trim & jamb - 2 coats (per side)	1.00 EA	23.07	0.32	4.68	28.07	<1.08>	26.99

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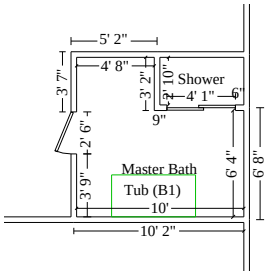
CONTINUED - Master Closet

DESCRIPTION	QUANTITY	UNIT PRICE	TAX	O&P	RCV	DEPREC.	ACV
24. Seal/prime then paint the walls and ceiling (2 coats)	376.95 SF	0.79	5.09	60.58	363.45	<16.96>	346.49
All of the walls and ceilings will need to be sealed and painted due to their condition where one coat of paint is not enough to cover the walls and ceilings for a uniform appearance.							
Totals: Master Closet			**46.25**	**545.61**	**3,273.65**	**101.02**	**3,172.63**



Master Bath **Height: 8'**

252.45	SF Walls	77.72	SF Ceiling
330.16	SF Walls & Ceiling	65.22	SF Floor
7.25	SY Flooring	27.33	LF Floor Perimeter
38.92	LF Ceil. Perimeter		

Door	**4' 1" X 6' 8"**	**Opens into SHOWER**
Door	**2' 6" X 6' 8"**	**Opens into MASTER_BEDRO**

DESCRIPTION	QUANTITY	UNIT PRICE	TAX	O&P	RCV	DEPREC.	ACV
25. R&R Custom cabinets - vanity units - Premium grade	6.67 LF	524.72	283.08	756.59	4,539.55	<943.59>	3,595.96
26. R&R 1/2" drywall - hung, taped, ready for texture	**187.23 SF**	**1.96**	**7.41**	**74.88**	**449.26**	**<0.00>**	**449.26**
80. R&R 1/2" water rock (greenboard) hung, taped ready for texture	**65.22 SF**	**2.08**	**3.40**	**27.81**	**166.88**	**<0.00>**	**166.88**
27. R&R 5/8" drywall - hung, taped, ready for texture	**77.72 SF**	**2.06**	**3.64**	**32.75**	**196.48**	**<0.00>**	**196.48**
28. Texture drywall - machine	**252.45 SF**	**0.36**	**0.68**	**18.31**	**109.87**	**<0.00>**	**109.87**
29. R&R Bathroom ceiling heater - 2 bulb	1.00 EA	124.67	4.77	25.89	155.32	<15.89>	139.43
30. R&R Marble or Granite floor tile	65.22 SF	18.76	43.26	253.36	1,520.15	<144.20>	1,375.94
31. R&R Marble base	27.33 LF	15.24	8.90	85.08	510.50	<29.68>	480.82
32. Heat/AC register - Mechanically attached	1.00 EA	21.64	0.92	4.51	27.07	<3.07>	24.00
Drywall repairs							
33. R&R Recessed light fixture - High grade	1.00 EA	130.41	4.48	26.98	161.87	<14.95>	146.92
Water damage to recessed light can, high grade represent a sealed can and bulb as required to be in bathrooms and kitchens							
34. R&R Vanity top - two sinks - cultured marble	6.67 LF	110.68	48.26	157.30	943.79	<160.86>	782.93
35. Mirror - plate glass - Detach & reset	1.00 SF	6.34	0.00	1.27	7.61	<0.00>	7.61
81. Toilet - Detach & reset	**1.00 EA**	**191.44**	**0.38**	**38.36**	**230.19**	**<0.00>**	**230.19**

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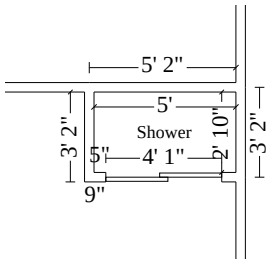
CONTINUED - Master Bath

DESCRIPTION	QUANTITY	UNIT PRICE	TAX	O&P	RCV	DEPREC.	ACV
82. Tub/shower faucet (finish trim) - Detach & reset	**1.00 EA**	**72.45**	**0.00**	**14.49**	**86.94**	**<0.00>**	**86.94**
36. Paint door slab only - 2 coats (per side)	1.00 EA	23.05	0.55	4.72	28.32	<1.83>	26.49
37. Paint door/window trim & jamb - 2 coats (per side)	1.00 EA	23.07	0.32	4.68	28.07	<1.08>	26.99
38. Paint door or window opening - 2 coats (per side)	1.00 EA	23.07	0.32	4.68	28.07	<1.08>	26.99
39. Seal/prime then paint the walls and ceiling (2 coats)	330.16 SF	0.79	4.46	53.06	318.34	<14.86>	303.48
Due to the type and condition of the paint, sealing and painting of the walls is necessary for a uniform appearance							
83. R&R Mortar bed for tile	**65.22 SF**	**7.20**	**9.22**	**95.76**	**574.56**	**<10.24>**	**564.31**
84. R&R Marble or Granite tile - High grade	**65.22 SF**	**30.89**	**113.23**	**425.58**	**2,553.45**	**<125.81>**	**2,427.65**
Totals: Master Bath			**537.29**	**2,106.05**	**12,636.30**	**1,467.14**	**11,169.16**



Shower **Height: 8'**

98.11 SF Walls	14.17 SF Ceiling
112.28 SF Walls & Ceiling	14.17 SF Floor
1.57 SY Flooring	11.58 LF Floor Perimeter
15.67 LF Ceil. Perimeter	

Door **4' 1" X 6' 8"** **Opens into MASTER_BATH**

DESCRIPTION	QUANTITY	UNIT PRICE	TAX	O&P	RCV	DEPREC.	ACV
85. R&R 1/2" water rock (greenboard) hung, taped ready for texture	**112.28 SF**	**2.08**	**5.86**	**47.88**	**287.28**	**<0.00>**	**287.28**
86. R&R Shower door - Premium grade	**1.00 EA**	**706.24**	**51.48**	**151.54**	**909.27**	**<171.61>**	**737.66**
87. Shower pan - hot mop - up to 16 SF	**1.00 EA**	**284.10**	**1.20**	**57.06**	**342.36**	**<4.00>**	**338.36**
88. R&R Mortar bed for tile	**112.28 SF**	**7.20**	**15.87**	**164.86**	**989.14**	**<17.63>**	**971.52**
89. R&R Marble or Granite tile - High grade	**126.44 SF**	**30.89**	**219.51**	**825.05**	**4,950.29**	**<243.90>**	**4,706.39**
Totals: Shower			**293.92**	**1,246.39**	**7,478.34**	**437.14**	**7,041.21**

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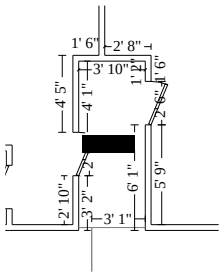

Hallway **Height: 8'**

153.33	SF Walls	36.74	SF Ceiling
190.07	SF Walls & Ceiling	36.74	SF Floor
4.08	SY Flooring	18.33	LF Floor Perimeter
23.33	LF Ceil. Perimeter		

Door	**2' 6" X 6' 8"**	**Opens into BEDROOM_1**
Missing Wall	**9" X 8'**	**Opens into DINING_ROOM**
Missing Wall	**3' 1" X 8'**	**Opens into LIVING_ROOM**
Door	**2' 6" X 6' 8"**	**Opens into MASTER_BEDRO**

DESCRIPTION	QUANTITY	UNIT PRICE	TAX	O&P	RCV	DEPREC.	ACV
40. Clean floor - stone	36.74 SF	0.64	0.03	4.71	28.25	<0.00>	28.25
41. Contents - move out then reset	1.00 EA	54.99	0.00	11.00	65.99	<0.00>	65.99
42. R&R 1/2" drywall - hung, taped, ready for texture	**153.33 SF**	**1.96**	**6.07**	**61.32**	**367.92**	**<0.00>**	**367.92**
43. Texture drywall - machine	**153.33 SF**	**0.36**	**0.41**	**11.12**	**66.74**	**<0.00>**	**66.74**
44. Regrout stone floor	36.74 SF	2.91	0.20	21.42	128.53	<0.66>	127.87
Grout discolored							
45. R&R Baseboard - 8" paint grade - 2 piece	11.00 LF	6.53	2.22	14.81	88.86	<7.39>	81.47
46. Paint baseboard, oversized - two coats	18.33 LF	1.14	0.25	4.23	25.38	<0.82>	24.56
47. Paint door slab only - 2 coats (per side)	2.00 EA	23.05	1.10	9.44	56.64	<3.65>	52.99
48. Paint door/window trim & jamb - 2 coats (per side)	2.00 EA	23.07	0.65	9.36	56.15	<2.16>	53.99
90. Floor protection - corrugated cardboard and tape	36.74 SF	0.48	0.66	3.66	21.96	<0.00>	21.96
Protect marble floors during repairs							
49. Seal/prime then paint the walls (2 coats)	153.33 SF	0.79	2.07	24.64	147.84	<6.90>	140.94
Due to the type and condition of the paint, sealing and painting of the walls is necessary for a uniform appearance							
Totals: Hallway			**13.66**	**175.71**	**1,054.25**	**21.58**	**1,032.67**

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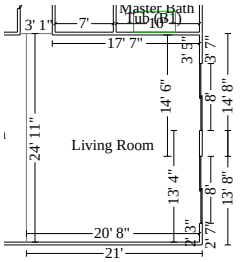
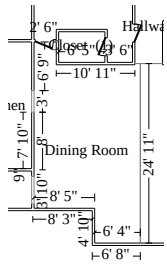


Living Room **Height: 8'**

376.00	SF Walls	512.01	SF Ceiling
888.01	SF Walls & Ceiling	512.01	SF Floor
56.89	SY Flooring	47.00	LF Floor Perimeter
63.00	LF Ceil. Perimeter		

Door	**8' X 8'**	**Opens into Exterior**
Door	**8' X 8'**	**Opens into Exterior**
Missing Wall	**3' 1" X 8'**	**Opens into HALLWAY**
Missing Wall	**24' 11" X 8'**	**Opens into DINING_ROOM**

DESCRIPTION	QUANTITY	UNIT PRICE	TAX	O&P	RCV	DEPREC.	ACV
50. Clean floor - stone	512.01 SF	0.64	0.46	65.63	393.78	<0.00>	393.78
51. Content Manipulation charge - per hour	6.00 HR	40.31	0.00	48.37	290.23	<0.00>	290.23
Labor to manipulate piano and retune							
52. Contents - move out then reset - Extra large room	1.00 EA	164.96	0.00	32.99	197.95	<0.00>	197.95
53. R&R 1/2" drywall - hung, taped, ready for texture	**140.67 SF**	**1.96**	**5.57**	**56.26**	**337.54**	**<0.00>**	**337.54**
54. Texture drywall - machine	**158.25 SF**	**0.36**	**0.43**	**11.48**	**68.88**	**<0.00>**	**68.88**
55. Regrout stone floor	512.01 SF	2.91	2.76	298.54	1,791.26	<9.22>	1,782.04
Grout discolored							
56. R&R Baseboard - 8" paint grade - 2 piece	16.67 LF	6.53	3.36	22.44	134.66	<11.20>	123.46
91. R&R Crown molding - 4 1/4"	**21.00 LF**	**5.49**	**3.33**	**23.72**	**142.34**	**<11.09>**	**131.25**
92. R&R Heat/AC register - Mechanically attached	**2.00 EA**	**23.78**	**1.84**	**9.88**	**59.28**	**<6.14>**	**53.15**
57. Paint baseboard, oversized - two coats	47.00 LF	1.14	0.63	10.84	65.06	<2.12>	62.94
58. Paint crown molding - two coats	**63.00 LF**	**1.10**	**0.62**	**13.98**	**83.91**	**<2.08>**	**81.83**
93. Floor protection - corrugated cardboard and tape	512.01 SF	0.48	9.22	51.00	305.97	<0.00>	305.97
Protect marble floors during repairs							
59. Seal/prime then paint the walls (2 coats)	376.00 SF	0.79	5.08	60.42	362.54	<16.92>	345.62
Totals: Living Room			**33.30**	**705.57**	**4,233.40**	**58.77**	**4,174.62**

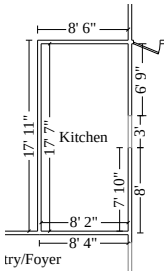


Dining Room — Height: 8'

436.44	SF Walls	334.27	SF Ceiling
770.72	SF Walls & Ceiling	334.27	SF Floor
37.14	SY Flooring	53.50	LF Floor Perimeter
59.83	LF Ceil. Perimeter		

Missing Wall - Goes to Floor	**3' X 6' 8"**	**Opens into KITCHEN**
Missing Wall - Goes to Floor	**3' 10" X 6' 8"**	**Opens into ENTRY_FOYER**
Missing Wall	**24' 11" X 8'**	**Opens into LIVING_ROOM**
Missing Wall	**9" X 8'**	**Opens into HALLWAY**
Door	**2' 6" X 6' 8"**	**Opens into BEDROOM_1**

DESCRIPTION	QUANTITY	UNIT PRICE	TAX	O&P	RCV	DEPREC.	ACV
60. Clean floor - stone	334.27 SF	0.64	0.30	42.85	257.08	<0.00>	257.08
94. R&R 1/2" drywall - hung, taped, ready for texture	**88.00 SF**	**1.96**	**3.64**	**35.22**	**211.35**	**<0.00>**	**211.35**
95. Texture drywall - machine	**88.00 SF**	**0.36**	**0.24**	**6.38**	**38.30**	**<0.00>**	**38.30**
61. Regrout stone floor	334.27 SF	2.91	1.81	194.91	1,169.44	<6.02>	1,163.42
Grout discolored							
96. R&R Crown molding - 4 1/4"	**11.00 LF**	**5.49**	**1.74**	**12.43**	**74.56**	**<5.81>**	**68.75**
62. Paint baseboard, oversized - two coats	53.50 LF	1.14	0.72	12.34	74.06	<2.41>	71.65
63. Paint crown molding - two coats	**59.83 LF**	**1.10**	**0.59**	**13.28**	**79.68**	**<1.97>**	**77.71**
97. Floor protection - corrugated cardboard and tape	334.27 SF	0.48	6.02	33.29	199.76	<0.00>	199.76
Protect marble floors during repairs							
64. Seal/prime then paint the walls (2 coats)	436.44 SF	0.79	5.89	70.14	420.82	<19.64>	401.18
Due to the type and condition of the paint, sealing and painting of the walls is necessary for a uniform appearance							
Totals: Dining Room			**20.95**	**420.84**	**2,525.04**	**35.85**	**2,489.19**



Kitchen — Height: 8'

412.00	SF Walls	143.60	SF Ceiling
555.60	SF Walls & Ceiling	143.60	SF Floor
15.96	SY Flooring	51.50	LF Floor Perimeter
51.50	LF Ceil. Perimeter		

Missing Wall - Goes to Floor	**3' X 6' 8"**	**Opens into DINING_ROOM**

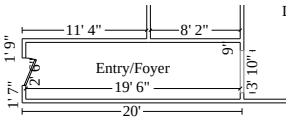
DESCRIPTION	QUANTITY	UNIT PRICE	TAX	O&P	RCV	DEPREC.	ACV
65. Clean floor - stone	143.60 SF	0.64	0.13	18.41	110.44	<0.00>	110.44
66. Regrout stone floor	143.60 SF	2.91	0.78	83.73	502.39	<2.58>	499.81

[redacted]

CONTINUED - Kitchen

DESCRIPTION	QUANTITY	UNIT PRICE	TAX	O&P	RCV	DEPREC.	ACV
Grout discolored							
98. Floor protection - corrugated cardboard and tape	143.60 SF	0.48	2.58	14.30	85.82	<0.00>	85.82
Protect marble floors during repairs							
Totals: Kitchen			**3.49**	**116.44**	**698.64**	**2.58**	**696.06**

Entry/Foyer **Height: 8'**



352.44 SF Walls	100.75 SF Ceiling
453.19 SF Walls & Ceiling	100.75 SF Floor
11.19 SY Flooring	43.00 LF Floor Perimeter
49.33 LF Ceil. Perimeter	

Door **2' 6" X 6' 8"** **Opens into Exterior**

Missing Wall - Goes to Floor **3' 10" X 6' 8"** **Opens into DINING_ROOM**

DESCRIPTION	QUANTITY	UNIT PRICE	TAX	O&P	RCV	DEPREC.	ACV
67. Clean floor - stone	100.75 SF	0.64	0.09	12.91	77.49	<0.00>	77.49
68. Regrout stone floor	100.75 SF	2.91	0.54	58.74	352.47	<1.81>	350.66
Grout discolored in living room and hall contiguous with the affected rooms							
69. Paint baseboard, oversized - two coats	43.00 LF	1.14	0.58	9.92	59.52	<1.94>	57.58
70. Paint crown molding - two coats	49.33 LF	1.10	0.49	10.95	65.70	<1.63>	64.07
99. Floor protection - corrugated cardboard and tape	100.75 SF	0.48	1.81	10.03	60.21	<0.00>	60.21
Protect marble floors during repairs							
71. Seal/prime then paint the walls (2 coats)	352.44 SF	0.79	4.76	56.64	339.83	<15.86>	323.97
Due to the type and condition of the paint, sealing and painting of the walls is necessary for a uniform appearance							
Totals: Entry/Foyer			**8.28**	**159.20**	**955.21**	**21.24**	**933.97**
Total: Main Level			**1,111.80**	**7,174.04**	**43,044.23**	**2,312.40**	**40,731.83**
Line Item Totals: [redacted]			**1,111.80**	**7,174.04**	**43,044.23**	**2,312.40**	**40,731.83**

[redacted]

Grand Total Areas:

3,936.78	SF Walls	2,067.42	SF Ceiling	6,004.20	SF Walls and Ceiling
2,054.93	SF Floor	228.33	SY Flooring	480.92	LF Floor Perimeter
0.00	SF Long Wall	0.00	SF Short Wall	550.25	LF Ceil. Perimeter
2,054.93	Floor Area	2,196.85	Total Area	3,936.78	Interior Wall Area
1,844.33	Exterior Wall Area	221.00	Exterior Perimeter of Walls		
0.00	Surface Area	0.00	Number of Squares	0.00	Total Perimeter Length
0.00	Total Ridge Length	0.00	Total Hip Length		

[redacted]

Summary for Dwelling

Line Item Total	34,758.39
Material Sales Tax	1,111.80
Subtotal	35,870.19
Overhead	3,587.02
Profit	3,587.02
Replacement Cost Value	**$43,044.23**
Less Non-recoverable Depreciation	<2,312.40>
Actual Cash Value	**$40,731.83**
Net Claim	**$40,731.83**

[redacted]

[redacted]

Recap of Taxes, Overhead and Profit

	Overhead (10%)	Profit (10%)	Material Sales Tax (9%)	Storage Rental Tax (9%)
Line Items	3,587.02	3,587.02	1,111.80	0.00
Total	**3,587.02**	**3,587.02**	**1,111.80**	**0.00**

[redacted]

Recap by Room

Estimate: [redacted]

Area: Main Level	**1,160.33**	**3.34%**
Master Bedroom	**7,176.18**	**20.65%**
Master Closet	**2,681.79**	**7.72%**
Master Bath	**9,992.96**	**28.75%**
Shower	**5,938.03**	**17.08%**
Hallway	**864.88**	**2.49%**
Living Room	**3,494.53**	**10.05%**
Dining Room	**2,083.25**	**5.99%**
Kitchen	**578.71**	**1.66%**
Entry/Foyer	**787.73**	**2.27%**
Area Subtotal: Main Level	**34,758.39**	**100.00%**
Subtotal of Areas	**34,758.39**	**100.00%**
Total	**34,758.39**	**100.00%**

[redacted]

Recap by Category with Depreciation

O&P Items	RCV	Deprec.	ACV
APPLIANCES	39.79		39.79
CABINETRY	3,457.13	943.59	2,513.54
CLEANING	721.51		721.51
CONTENT MANIPULATION	709.24		709.24
GENERAL DEMOLITION	2,705.38		2,705.38
DOORS	713.80		713.80
DRYWALL	4,455.85		4,455.85
ELECTRICAL	156.98	22.06	134.92
FLOOR COVERING - CARPET	266.90	68.56	198.34
FLOOR COVERING - STONE	4,731.93	194.17	4,537.76
FLOOR COVERING - WOOD	1,112.37	38.75	1,073.62
FINISH CARPENTRY / TRIMWORK	1,345.66	63.30	1,282.36
FINISH HARDWARE	70.62		70.62
FIRE PROTECTION SYSTEMS	37.02		37.02
HEAT, VENT & AIR CONDITIONING	108.20	15.35	92.85
LABOR ONLY	644.96		644.96
LIGHT FIXTURES	325.39	33.66	291.73
MARBLE - CULTURED OR NATURAL	730.63	160.86	569.77
MIRRORS & SHOWER DOORS	696.92	171.61	525.31
PLUMBING	547.99	4.00	543.99
PAINTING	4,211.74	198.91	4,012.83
TILE	6,683.12	397.58	6,285.54
WINDOW TREATMENT	285.26		285.26
O&P Items Subtotal	34,758.39	2,312.40	32,445.99
Material Sales Tax	1,111.80		1,111.80
Overhead	3,587.02		3,587.02
Profit	3,587.02		3,587.02
Total	43,044.23	2,312.40	40,731.83

7. ORDER OF MAGNITUDE (PFCS LEVEL 1)

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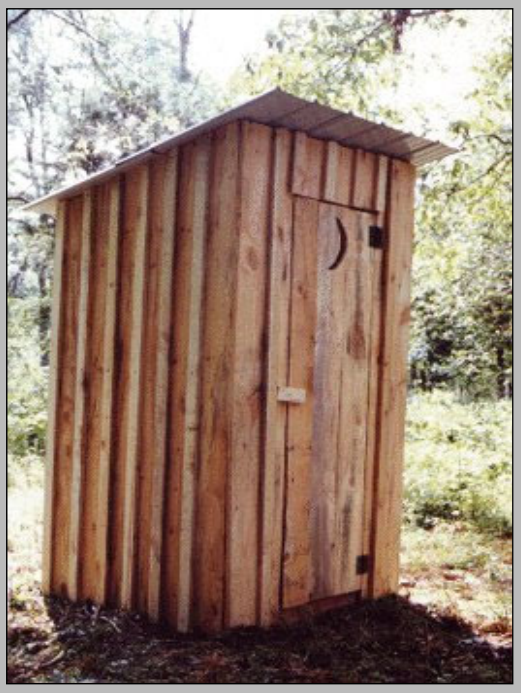
7. ORDER OF MAGNITUDE

Case Study

PFCS' Simplified Case Study: Otto's Outhouse



7. ORDER OF MAGNITUDE

Level 1: 10 Steps

www.petefowler.com

Level 5 Estimating

5 Levels - 10 Steps

3/10/2009

STEP 1
STEP 2
STEP 3
STEP 4
STEP 5
STEP 6
STEP 7
STEP 8
STEP 9
STEP 10

Level 1

Level 1	Level 2	Level 3	Level 4	Level 5
Order of Magnitude	Conceptual	Preliminary	Detailed	Bid / Construction / Trial
Summary Sheet Only	Add capital letters (or numbers if L1 are letters) with 2 to 15 items under each of the main categories	Conform with the WBS rules: Main Category, then capital letters or numbers, then alternate with each new level.	See PFCS Samples for deeper and deeper levels. Conform to rules of WBS.	Final Pass for clarity and ease of making references and following all of the component parts.
A S p a r fi	Add details with 2-10 categories each with letters and CSI codes. Basic QTO on main items (SF, FA, LF, etc.) Usually not calculated units like Cubic Yards (CY)	Level 3 WBS with letters, numbers, and CSI codes. More detailed QTO.	Complete, detailed QTO.	Final Pass. Check QTO on key items.
L l	Rough Estimate, Typical crews, Round numbers, slightly over estimating. No calls	Productivity rates, Use Walker's book on big #s	Use Walker's Labor Rates	Final Pass
A Q m e	QTO, Rough Estimate, Slightly over estimating. Books only for big #'s, NO calls unless faster than book	Calls, Books, Maybe Alternatives	Calls, Bids, Alternatives refined	Final Pass
V	Rough Estimate. No Calls	Calls, Books	Calls, Books, Bids	Final Pass
U b	Books, NO calls	Some Calls	Lots of Calls, Maybe send info, Maybe Bids	Final Pass
	Reconsider % or Amount	Reconsider % or Amount	Broken Down	Same as L4
	Reconsider % or Amount	Reconsider % or Amount	Possibly Broken Down	Same as L4
	Reconsider % or Amount	Reconsider % or Amount	Reconsider % or Amount	Reconsider % or Amount
WAG	SWAG	More Support	More Support	Calls Bids
1-4 Hours	2-24 Hours	16-100 Hours	50-200 Hours	100+ Hours

7. ORDER OF MAGNITUDE

Case Study: 10 Steps: Level 1

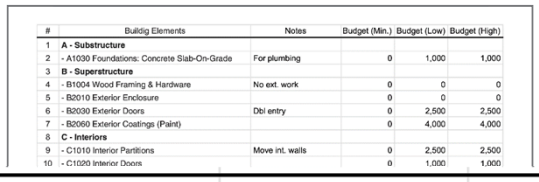
1. **Format:** Summary Sheet only
2. **Scope:** A Level 1 Work Breakdown Structure (WBS): 1 paragraph to 1 page. There are basic quantities (no real QTO) in approximate figures
3. **Time/Labor:** Little or no breakdown of labor / time in this step.
4. **Material:** A guesstimate. Little QTO, Quantities only - not cost of materials. Assembly level estimates at the most.
5. **Equipment:** WAG. Often none.
6. **Subs:** Unit prices, WAG, Use books only on BIG #'s
7. **General Conditions:** % of Direct Cost
8. **Overhead:** % of Direct Cost
9. **Profit:** % of Direct Cost
10. **Non-Construction:** WAG

7. ORDER OF MAGNITUDE

Case Study: Order of Magnitude

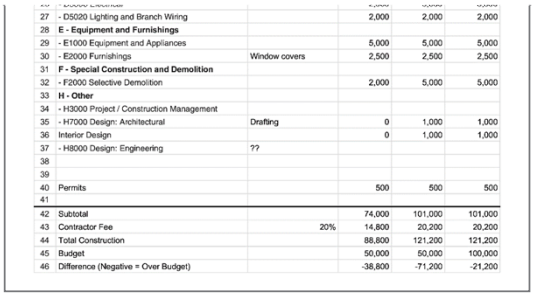
1	Grading & Excavation	$1,000.00
2	Framing	$1,000.00
3	Roofing	$500.00
4	Final Clean-Up	$500.00
5	**SUB TOTAL**	**$3,000.00**
6	Profit & Overhead	$1,000.00
7	**Total Construction Costs**	**$4,000.00**
8	Other Project Costs	$500.00
9	**TOTAL**	**$4,500.00**

Case Study: A Simple Estimate



#	Buildig Elements	Notes	Budget (Min.)	Budget (Low)	Budget (High)
1	**A - Substructure**				
2	- A1030 Foundations: Concrete Slab-On-Grade	For plumbing	0	1,000	1,000
3	**B - Superstructure**				
4	- B1004 Wood Framing & Hardware	No ext. work	0	0	0
5	- B2010 Exterior Enclosure		0	0	0
6	- B2030 Exterior Doors	Dbl entry	0	2,500	2,500
7	- B2060 Exterior Coatings (Paint)		0	4,000	4,000
8	**C - Interiors**				
9	- C1010 Interior Partitions	Move int. walls	0	2,500	2,500
10	- C1020 Interior Doors		0	1,000	1,000

42	Subtotal		74,000	101,000	101,000
43	Contractor Fee	20%	14,800	20,200	20,200
44	Total Construction		88,800	121,200	121,200
45	Budget		50,000	50,000	100,000
46	Difference (Negative = Over Budget)		-38,800	-71,200	-21,200



27	- D5020 Lighting and Branch Wiring		2,000	2,000	2,000
28	**E - Equipment and Furnishings**				
29	- E1000 Equipment and Appliances		5,000	5,000	5,000
30	- E2000 Furnishings	Window covers	2,500	2,500	2,500
31	**F - Special Construction and Demolition**				
32	- F2000 Selective Demolition		2,000	5,000	5,000
33	**H - Other**				
34	- H3000 Project / Construction Management				
35	- H7000 Design: Architectural	Drafting	0	1,000	1,000
36	Interior Design		0	1,000	1,000
37	- H8000 Design: Engineering	??			
38					
39					
40	Permits		500	500	500
41					
42	Subtotal		74,000	101,000	101,000
43	Contractor Fee	20%	14,800	20,200	20,200
44	Total Construction		88,800	121,200	121,200
45	Budget		50,000	50,000	100,000
46	Difference (Negative = Over Budget)		-38,800	-71,200	-21,200



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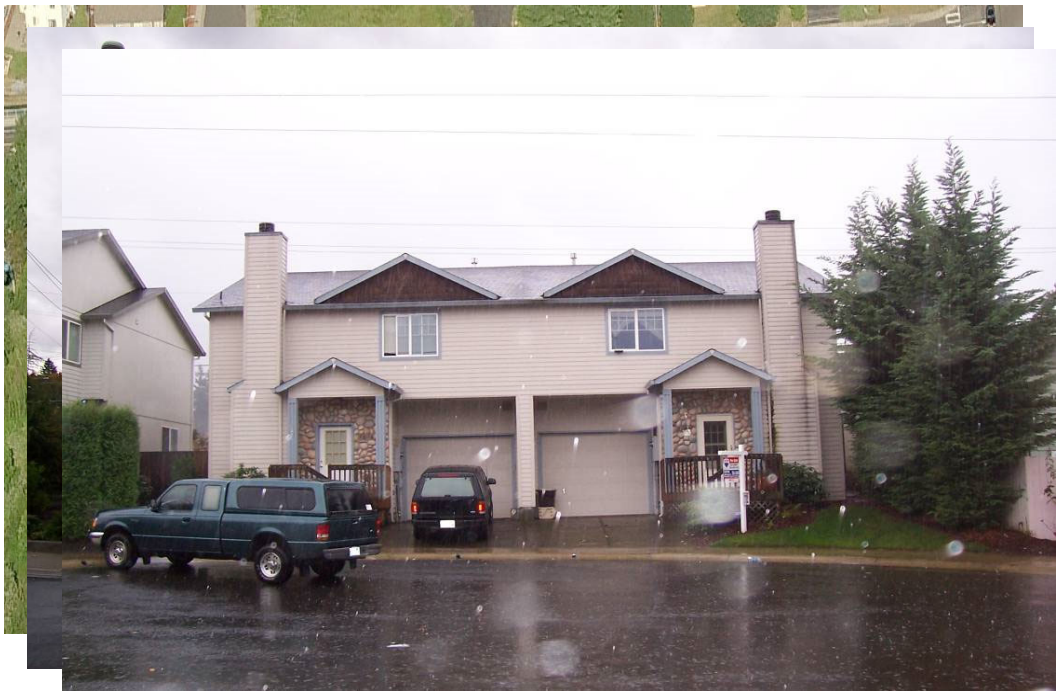
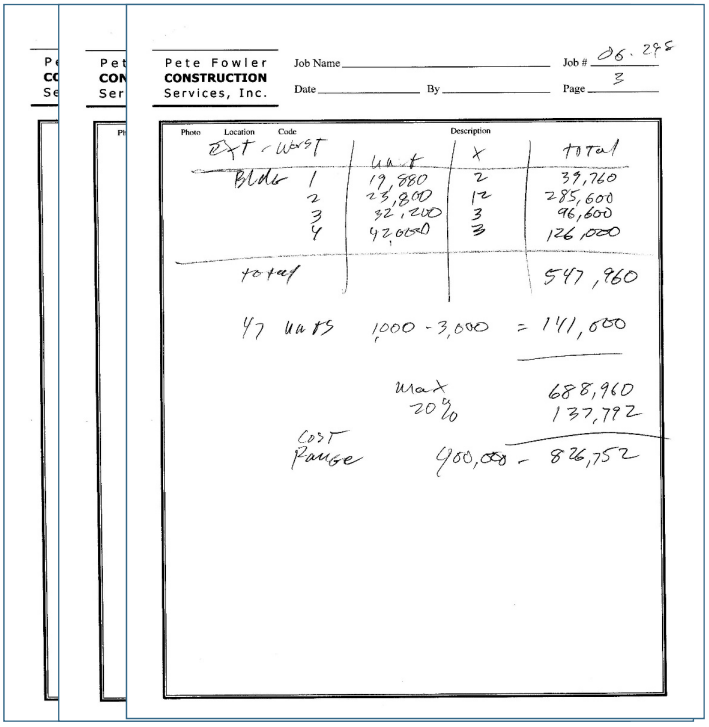
7. ORDER OF MAGNITUDE

Case Study: Multi-Family Residential



7. ORDER OF MAGNITUDE

Case Study: Multi-Family Residential



Pete Fowler CONSTRUCTION Services, Inc.

Job Name _____ Job # 06.295

Date _____ By _____ Page 3

Photo	Location	Code	Description			
	Ext - West		Unit	X	Total
	Bldg	1	19,880	2	39,760
		2	23,800	12	285,600
		3	32,200	3	96,600
		4	42,000	3	126,000
	total				547,960

47 units 1,000 - 3,000 = 141,000

Max 20% 688,960 137,792

Cost Range 400,000 - 826,752

7. ORDER OF MAGNITUDE

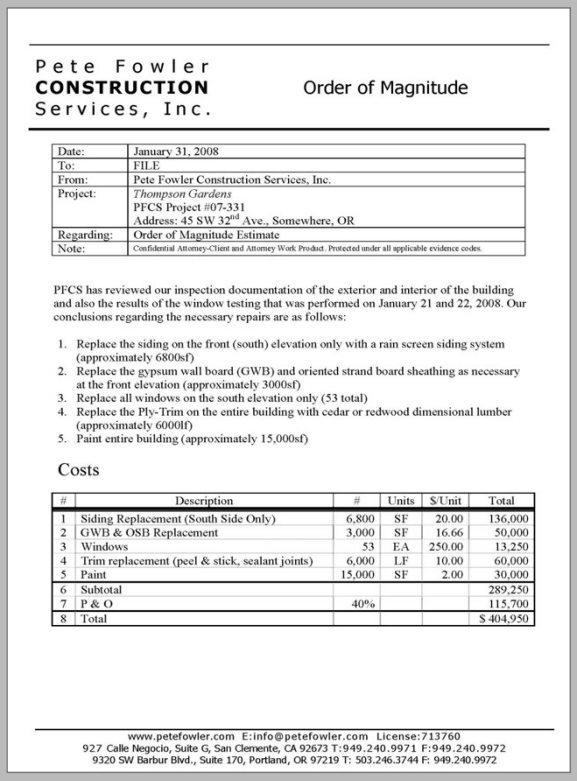
Case Study: Commercial



7. ORDER OF MAGNITUDE

Case Study: Commercial

Order of Magnitude



Pete Fowler
CONSTRUCTION
Services, Inc.

Order of Magnitude

Date:	January 31, 2008
To:	FILE
From:	Pete Fowler Construction Services, Inc.
Project:	*Thompson Gardens* PFCS Project #07-331 Address: 45 SW 32nd Ave., Somewhere, OR
Regarding:	Order of Magnitude Estimate
Note:	Confidential Attorney-Client and Attorney Work Product. Protected under all applicable evidence codes.

PFCS has reviewed our inspection documentation of the exterior and interior of the building and also the results of the window testing that was performed on January 21 and 22, 2008. Our conclusions regarding the necessary repairs are as follows:

1. Replace the siding on the front (south) elevation only with a rain screen siding system (approximately 6800sf)
2. Replace the gypsum wall board (GWB) and oriented strand board sheathing as necessary at the front elevation (approximately 3000sf)
3. Replace all windows on the south elevation only (53 total)
4. Replace the Ply-Trim on the entire building with cedar or redwood dimensional lumber (approximately 6000lf)
5. Paint entire building (approximately 15,000sf)

Costs

#	Description	#	Units	$/Unit	Total
1	Siding Replacement (South Side Only)	6,800	SF	20.00	136,000
2	GWB & OSB Replacement	3,000	SF	16.66	50,000
3	Windows	53	EA	250.00	13,250
4	Trim replacement (peel & stick, sealant joints)	6,000	LF	10.00	60,000
5	Paint	15,000	SF	2.00	30,000
6	Subtotal				289,250
7	P & O	40%			115,700
8	Total				$ 404,950

www.petefowler.com E:info@petefowler.com License:713760
927 Calle Negocio, Suite G, San Clemente, CA 92673 T:949.240.9971 F:949.240.9972
9320 SW Barbur Blvd., Suite 170, Portland, OR 97219 T: 503.246.3744 F: 949.240.9972

7. ORDER OF MAGNITUDE

Your Room Using Uniformat

Level 1 Major Group Elements	Level 2 Group Elements	Level 3 Individual Elements
A SUBSTRUCTURE	A10 Foundations	A1010 Standard Foundations A1020 Special Foundations A1030 Slab on Grade
	A20 Basement Construction	A2010 Basement Excavation A2020 Basement Walls
B SHELL	B10 Super Structure	B1010 Floor Construction B1020 Roof Construction
	B20 Exterior Enclosure	B2010 Exterior Walls B2020 Exterior Windows B2030 Exterior Doors
	B30 Roofing	B3010 Roof Coverings B3020 Roof Openings
C INTERIORS	C10 Interior Construction	C1010 Partitions C1020 Interior Doors C1030 Fittings
	C20 Stairs	C2010 Stair Construction C2020 Stair Finishes
	C30 Interior Finishes	C3010 Wall Finishes C3020 Floor Finishes C3030 Ceiling Finishes



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7. ORDER OF MAGNITUDE

Your Room Using Uniformat

Level 1 Major Group Elements	Level 2 Group Elements	Level 3 Individual Elements
D SERVICES	D10 Conveying	D1010 Elevators & Lifts D1020 Escalators & Moving Walks
	D20 Plumbing	D2010 Plumbing Fixtures D2020 Domestic Water Distribution D2030 Sanitary Waste D2040 Rain Water Drainage
	D30 HVAC	D3010 Energy Supply D3020 Heat Generating Systems D3030 Cooling Generating Systems D3040 Distribution Systems D3090 Other HVAC Systems & Equipment
	D40 Fire Protection	D4010 Sprinklers D4020 Standpipes D4030 Fire Protection Specialties
	D50 Electrical	D5010 Electrical Service & Distribution D5020 Lighting & Bench Wiring D5030 Communications & Security
E EQUIPMENT & FURNISHINGS	E10 Equipment	E1010 Commercial Equipment E1020 Institutional Equipment
	E20 Furnishings	E2010 Fixed Furnishings E2020 Movable Furnishings
F SPECIAL CONSTRUCTION & DEMOLITION	F10 Special Construction	F1010 Special Structures F1020 Integrated Construction
	F20 Selective Building Demolition	F2010 Building Elements Demolitions F2020 Hazardous Components Abatement



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Pete Fowler
CONSTRUCTION
Services, Inc.

Job Name _____ Job # 06-298

Date 9/15/06 By PF Page 1

Photo	Location	Code	Description

Bldg 1 VERY ROUGH EST

48

23

F	23×20 =	460
B		= 460
RS	48×20 =	960
LS		960

total = 2840

× 3-6 = 8520 – 17040

PAINT .50-1 = 1420 – 2840

9940 – 19,880

BLDG 2

35

50

F	35×20 =	700
B		= 700
RS	50×20 =	1000
LS		= 1000

total 3,400

× 3-6 = 10,200 – 20,400

P .5-1 = 1700 – 3400

11,900 – 23,800

Pete Fowler
CONSTRUCTION
Services, Inc.

Job Name _____ Job # 06-298

Date _____ By _____ Page 2

Photo	Location	Code	Description

BLDG 3

65

50 | F = 65 x 20 = 1300
B = = 1300
R = 50 x 20 = 1000
L = = 1000

T = 4600

x 3-6 = 13,800 - 27,600

P 2300 4600

16,100 - 32,200

BLDG 4

100

50 | F = 100 x 20 = 2000
B = = 2000
L = = 1000
R = = 1000

T = 6000

x 3-6 18,000 - 36,000

P 3000 6000

21,000 - 42000

Pete Fowler
CONSTRUCTION
Services, Inc.

Job Name _____ Job # 06.298

Date _____ By _____ Page 3

Photo	Location	Code	Description			
	Ext - Worst					
	Bldg	1	19,880	2	39,760
		2	23,800	12	285,600
		3	32,200	3	96,600
		4	42,000	3	126,000
	total				547,960

47 units 1,000 - 3,000 = 141,000

Max 688,960
20% 137,792

Cost Range 400,000 - 826,752

Construction Cost Estimate
Summary

Line	Code	Description	Notes	Qty.	Unit	Direct Cost Unit	Direct Cost Total	Construction Values	Project Cost Total
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11		**Direct Cost Total**							
12									
13		General Conditions							
14		Subtotal							
15									
16		Contractor's Overhead							
17		Contractor's Profit							
18		Insurance & Bond							
19									
20		Subtotal							
21		Contingency on Estimated Construction Costs							
22		**Total Estimated Construction Costs**							
23									
24		**Other Project Costs:**							
25		Construction Management							
26		Architecture/Design							
27		Structural Engineering							
28		Geotechnical Engineering							
29		Testing & Inspection							
30		Permits & Fees							
31		Relocation							
32									
33		Subtotal of Other Project Costs							
34		Contingency on Other Project Costs							
35		**Total of Other Project Costs**							
36									
37		**Total Estimated Project Cost**							

Construction Cost Estimate
Estimate Details

								Unit Cost				Total Cost					SUB
Line	CSI	Description	Notes / Ref.	Qty	Unit	Crew	Hrs	Labor	Material	Other	Subc.	Labor	Material	Other	Subc.	TOTAL	TOTAL
1																	
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
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14																	
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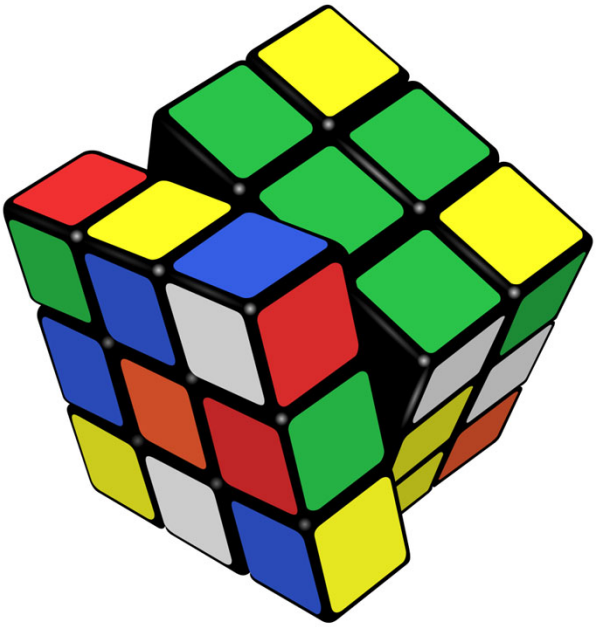
23																	
24																	
25																	
26																	
27																	
28																	
29																	
30																	
31																	
32																	

8. PUTTING IT ALL TOGETHER



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8. PUTTING IT ALL TOGETHER

10 Steps Summary

1. Format
2. Scope
3. Time (Labor)
4. Materials
5. Equipment
6. Independent Subcontractors
7. General Conditions (Project Specific OH)
8. Internal (Overhead) Costs
9. Profit
10. Non-Construction (Other) Costs



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5 Levels – 10 Steps

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Level 5 Estimating

5 Levels - 10 Steps

3/10/2009

Line	Steps	Level 1 Order of Magnitude	Level 2 Conceptual	Level 3 Preliminary	Level 4 Detailed	Level 5 Bid / Construction / Trial
1	Format	Summary Sheet Only	Add capital letters (or numbers if L1 are letters) with 2 to 15 items under each of the main categories	Conform with the WBS rules: Main Category, then capital letters or numbers, then alternate with each new level.	See PFCS Samples for deeper and deeper levels. Conform to rules of WBS.	Final Pass for clarity and ease of making references and following all of the component parts.
2	Scope	A Level 1 Work Breakdown Structure (WBS): 1 paragraph to 1 page. There are only basic quantities (no real QTO) in approximate figures	Add details with 2-10 categories each with letters and CSI codes. Basic QTO on main items (SF, FA, LF, etc.) Usually not calculated units like Cubic Yards (CY)	Level 3 WBS with letters, numbers, and CSI codes. More detailed QTO.	Complete, detailed QTO.	Final Pass. Check QTO on key items.
3	Time/Labor	Little or no breakdown of labor / time in this step	Rough Estimate, Typical crews, Round numbers, slightly over estimating. No calls	Productivity rates, Use Walker's book on big #'s	Use Walker's Labor Rates	Final Pass
4	Material	A guesstimate. Little QTO, Quantities only - not cost of materials. Assembly level estimates at the most	QTO, Rough Estimate, Slightly over estimating. Books only for big #'s, NO calls unless faster than book	Calls, Books, Maybe Alternatives	Calls, Bids, Alternatives refined	Final Pass
5	Equipment	WAG. Often none	Rough Estimate. No Calls	Calls, Books	Calls, Books, Bids	Final Pass
6	Subs	Unit prices, WAG, Use books only on BIG #'s	Books, NO calls	Some Calls	Lots of Calls, Maybe send info, Maybe Bids	Final Pass
7	GC's	% of Direct Cost	Reconsider % or Amount	Reconsider % or Amount	Broken Down	Same as L4
8	OH	% of Direct Cost	Reconsider % or Amount	Reconsider % or Amount	Possibly Broken Down	Same as L4
9	Profit	% of Direct Cost	Reconsider % or Amount	Reconsider % or Amount	Reconsider % or Amount	Reconsider % or Amount
10	Non-Construction	WAG	SWAG	More Support	More Support	Calls Bids
11	Time:	1-4 Hours	2-24 Hours	16-100 Hours	50-200 Hours	100+ Hours

Decide on the Level of Detail

- Level 1: Order of Magnitude
- Level 2: Conceptual
- Level 3: Preliminary
- Level 4: Detailed
- Level 5: Bid / Construction / Trial

A Sensible List

- Why This Matters
- By Importance
- Room-by-Room (Location by Location)
- SB 800
- By Who did the Work: CSI Codes
- By Assembly: Uniformat (PFCS Standard)
- Work Breakdown Structure



8. PUTTING IT ALL TOGETHER

A Sensible List

CONSIDER OUTLINING OR ORGANIZING USING:

- Use the Specifications or Project Manual, if one exists
- Project Activities
- CSI Master Format Codes
- Uniformat
- Residential List of Cost Categories
- Commercial / Industrial List of Cost Categories
- By Issue List or Defect List
- Homeowners List, Address or Unit Number
- DELIVERABLE: **Estimate Summary** sheet complete

8. PUTTING IT ALL TOGETHER

Estimate Setup

1. Outline items that will be on the Estimate Summary. Usually 5-20 items
2. Save estimate template to the file
3. Fill out Cover Page with all applicable information and identify the sheets you know will be included on the Table of Contents
4. Populate the Estimate Summary sheet with the items identified above
5. Apply any known Units on the Summary Sheet
6. Update figures and percentages below Sub-Total on the Summary

8. PUTTING IT ALL TOGETHER

Estimate Setup

7. Copy the Estimate Summary line items to the Estimate Details sheet
8. Make 5 or more lines between each of the copied line items (categories)
9. Sum the items below each category on the Details page
10. Link line items in Estimate Summary sheet in the Direct Cost Total column to associated items copied to the Estimate Details in the Total column
11. Add sample data to check math on Estimate Details and Summary pages
12. Format the complete estimate for print including all headers and footers

8. PUTTING IT ALL TOGETHER

Relating the Parts



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8. PUTTING IT ALL TOGETHER

Relating the Parts

ESTIMATE COMPONENTS

1. Title Page
2. Summary
3. Estimate Details
4. Unit Matrix / Room Schedule
5. Quantity Take Off Documentation
6. Labor and Crew Rates
7. Material Prices and Equipment Costs
8. Subcontractors Calls and Costs
9. General Conditions
10. Other Project Costs, including design, engineering, project management
11. Relocation

Resources

- Standard Estimating Practice 10th Edition; American Society of Professional Estimators
- Walker's Building Estimator's Reference Book Twenty Ninth Edition; Frank R. Walker Company
- RS Means Mechanical Cost Data 2014; The Gordian Group Inc.
- RS Means Building Construction Cost Data 2014; The Gordian Group Inc.

8. PUTTING IT ALL TOGETHER

Estimate Backup

- Any assumption that is not in the estimate should be in the backup.
- Organize it the same as the Estimate Summary.
- Include applicable codes, plans, specifications, addenda, contracts, RFIs, change orders, other project docs, inspection docs, testing, repairs, calculations, photos, markups, research, book page copies, internet research, etc.
- It does not need to be beautiful, it just needs to be complete.
- Generally create a packaged file (PDF), either one file with 100% of the backup, or a file for each estimate section.
- The electronic file should be complete, ensuring you have access to all of the backup documentation while reviewing and/or updating the estimate.



PFCS Uniformat Codes

Line	Code	Uniformat Description	Comments
1	A	**Substructure**	
2	A1010	Foundations: Concrete & Reinforcing	Not slab-on-grade
3	A1030	Foundations: Concrete Slab-On-Grade	
4	A2000	Basement Construction (incl. Basement Walls	Incl. Insulation
5	A2020	Basement Walls (incl. Concrete, Masonry, etc.)	
6	A2025	Moisture Protection / Waterproofing	Below grade only. Also see WP decks.
7			
8	B	**Superstructure**	
9	B1000	**Structural Frame (incl. Floor, Wall and Roof)**	
10	B1001	Concrete Structure & Reinforcing	Not foundation concrete
11	B1002	Masonry Structure	Not masonry veneer
12	B1003	Structural Steel / Metal Framing	
13	B1004	Wood Framing & Hardware	Incl. Rough Carpentry
14	B1020	Roof Construction & Trusses	Not Roofing
15	B2010	**Exterior Enclosure**	Walls, not roofs. Exterior not interior finishes.
16	B2011	Exterior Enclosure: Stucco / Plaster	Not site walls
17	B2012	Exterior Enclosure: Masonry Veneer	Not site walls, not structural
18	B2013	Exterior Enclosure: Siding & Trim	
19	B2015	Exterior Wall Insulation	
20	B2018	Exterior Wall Accessories & Decorative Metal	Incl. louvers, screens, etc…
21	B2020	Windows	
22	B2022	Storefronts	
23	B2023	Curtain Walls / Exterior Glazing	
24	B2030	Exterior Doors	Incl. Hardware, Weather-stripping
25	B2031	Exterior Doors: Specialty	Garage, Roll-Up, Revolving, Automatic, Etc.
26	B2040	Exterior Wall Flashing & Sheet metal	
27	B2050	Joint Sealants	
28	B2060	Exterior Coatings (Paint)	
29			
30	B3000	**Roofs**	
31	B3001	Sloped Roofs	
32	B3002	Low Slope Roofing	
33	B3003	Roof Insulation	
34	B3004	Roof Flashing & Trim	
35	B3005	Roof Accessories	
36	B3006	Gutters & Downspouts	
37	B3007	Waterproof Decks (Horizontal Waterproofing)	Not below grade
38			
39	**C**	**Interiors**	
40	C1000	**Interior Construction**	
41	C1010	Interior Partitions	Incl. Int. Wall Insulation
42	C1020	Interior Doors	
43	C1030	Interior Fittings & Specialties	Incl. partitions, signs, lockers, shelving, fire extinguisher cabinets, etc…
44	C1031	Toilet & Bath Accessories (incl. Shower Doors)	
45	C1032	Counters (Incl. Tile, Stone, Laminate, Etc.)	
46	C1033	Cabinets	
47	C1035	Finish Carpentry & Architectural Woodwork	
48	C2000	Stairs (Interior and Exterior)	
49	C3000	**Interior Finishes**	
50	C3010	Gypsum Wallboard & Interior Plaster	Not Exterior gyp sheathing
51	C3011	Interior Paint	
52	C3012	Interior Wall Covering & Finishes	
53	C3015	Tile & Stone Assemblies (Incl. Showers)	Not Counters, not floors
54	C3020	Floor Finishes	
55	C3021	Floor Finishes: Tile	
56	C3022	Floor Finishes: Wood	
57	C3023	Floor Finishes: Resilient	
58	C3024	Floor Finishes: Carpet	
59	C3030	Ceiling Finishes	
60			
61	**D**	**Services**	
62	D1000	**Conveying**	
63	D1010	Elevators and Lifts	
64	D1020	Escalators and Moving Walks	

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Line	Code	Uniformat Description	Comments
65	D2000	**Plumbing**	
66	D2010	Plumbing Fixtures	Incl. bathtubs and manufacturer showers
67	D2020	Domestic Water Distribution	
68	D2030	Sanitary Waste	
69	D2040	Rain Water Drainage	
70	D3000	**HVAC: Heating, Ventilating & Air-conditioning**	
71	D3020	Heat Generating Systems (Incl. Fireplaces)	Incl. wood burning and other stoves
72	D3030	Cooling Generating Systems	
73	D3040	Distribution System	
74	D4000	**Fire Protection**	
75	D4010	Sprinklers & Standpipes	
76	D4050	Fire Protection Specialties & Assemblies	
77	D5000	**Electrical**	
78	D5010	Electrical Service and Distribution	
79	D5020	Lighting and Branch Wiring	
80	D5030	Communications & Security	Incl. Building Automation, AV, etc…
81			
82	**E**	**Equipment and Furnishings**	
83	E1000	Equipment and Appliances	
84	E2000	Furnishings	
85			
	F	**Special Construction and Demolition**	
87	F1000	Special Construction	
88	F2000	Selective Demolition	
89	F2020	Hazardous Components Abatement	Mold, Asbestos, etc..
90	F3000	Cleaning & Waste Management	Unique to PFCS
91	F4000	Building Maintenance	Unique to PFCS
92			
93	**G**	**Building Sitework**	
94	G1000	**Site Preparations**	
95	G1010	Site Clearing	
96	G1020	Site Demolition and Relocations	
97	G1030	Site Earthwork & Grading	
98	G1035	Compaction, Stabilization, Soil Treatment	
99	G1040	Hazardous Waste Remediation	
100	G2000	**Site Improvements**	
101	G2010	Roadways	
102	G2020	Parking Lots	
103	G2030	Pedestrian Paving	Incl. exterior brick, tile, stone assemblies
104	G2040	Site Development	Incl. ext. furnishing, signage, playing fields, courts
105	G2041	Fences, Gates and Walls	Incl. Wood, Masonry & Metal.
106	G2042	Retaining Walls	
107	G2043	Fountains & Swimming Pools	
108	G2050	Landscaping	
109	G2055	Fine Grading & Drainage	
110	G3000	**Site Civil/Mechanical Utilities**	
111	G3010	Water Supply	
112	G3020	Sanitary Sewer	
113	G3030	Storm Sewer	
114	G4000	Site Electrical Utilities	
115	G4020	Site Lighting	
116			
117	**H**	**Other**	
118	H1000	Health & Safety Requirements	
119	H2000	General Conditions	
120	H3000	Project / Construction Management	
121	H4000	Quality Requirements	
122	H5000	Regulatory Requirements (Codes & Standards)	
123	H6000	Tools & Equipment	
124	H7000	Design: Architectural	Incl. Specs, Interiors, Automation, Energy, Efficiency (Green Building)
125	H8000	Design: Engineering	Geotechnical, Civil, Structural
126			
127		NOTE: Any category can be expanded by adding "Other" to the end of a more general name, usually with a number 9. For example: "D1090 Conveying Systems: Other" or "G9999 Site Improvements: Other."	

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Construction Cost Estimate

Pete Fowler Construction Services, Inc.

Project Number: 13-291
Project Name: [redacted]
Address: [redacted] San Pedro, CA
Description: Estimate to diagnose and repair window and door related leaks and repair of damage from window and door related leaks

Date: 10/28/14
Estimator: PF, PV, JS

Contents

1 Estimate Summary
2 Estimate Details
3 Labor Rates
4 Calls, Sub-Bids, Materials
5 General Conditions
6 Quantity Take Off

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Estimate Summary

#	Item	Description	Notes	Qty	Unit	Direct Cost Unit	Direct Cost Total	Project Cost Total
1	B1001	Concrete Structure & Reinforcing	Grind conc. & add curb	183	SF	$ 13.90	$ 2,543.21	$ 4,676.09
2	B1004	Wood Framing & Hardware	Repair damaged frmg.	1	LS	$ 5,104.61	$ 5,104.61	$ 9,385.62
3	B1010	Cementitious Underlayment	At exterior decks	620	SF	$ 4.85	$ 3,008.52	$ 5,531.63
4	B2011	Exterior Enclosure: Stucco / Plaster	Demo and replace	14	Locs	$ 1,763.84	$ 24,693.78	$ 45,403.37
5	B2015	Exterior Wall Insulation	At windows & doors	2,617	SF	$ 1.81	$ 4,741.40	$ 8,717.81
6	B2017	Exterior Guardrail	At deck repairs	1	LS	$ 1,629.84	$ 1,629.84	$ 2,996.71
7	B2018	Exterior Wall Accessories	Remove & reset signs	3	Locs	$ 817.92	$ 2,453.76	$ 4,511.62
8	B2020	Windows		10	EA	$ 3,646.71	$ 36,467.13	$ 67,050.51
9	B2030	Exterior Doors		4	Locs	$ 558.34	$ 2,233.35	$ 4,106.37
10	B2040	Exterior Wall Flashing & Sheet metal	At windows & doors	1	LS	$12,005.73	$ 12,005.73	$ 22,074.40
11	B2050	Joint Sealants	At windows & doors	12	Locs	$ 137.55	$ 1,650.54	$ 3,034.78
12	B2060	Exterior Coatings (Paint)	Paint the whole bldg.	1	LS	$12,284.19	$ 12,284.19	$ 22,586.40
13	B3002	Low Slope Roofing	At clearstory window	1	Locs	$ 378.48	$ 378.48	$ 695.90
14	B3004	Roof Flashing & Trim	At clearstory window	1	LS	$ 222.53	$ 222.53	$ 409.15
15	B3007	Waterproof Decks (Horizontal WP)		803	SF	$ 17.36	$ 13,939.09	$ 25,629.20
16	C1035	Finish Carpentry		1	LS	$ 2,376.56	$ 2,376.56	$ 4,369.68
17	C3010	Gypsum Wallboard	Drywall at all windows and ext. doors, plus content manipulation & protection	2,517	SF	$ 9.27	$ 23,320.94	$ 42,879.19
18	C3011	Interior Paint	Many rooms	11,111	SF	$ 1.32	$ 14,633.07	$ 26,905.19
19	C3012	Interior Wall Covering & Finishes	Wallpaper	1,127	SF	$ 1.85	$ 2,086.87	$ 3,837.03
20	C3023	Floor Finishes: Resilient	2 halls with damage	1,326	SF	$ 3.99	$ 5,294.32	$ 9,734.44
21	C3024	Floor Finishes: Carpet	1 room with damage	130	SF	$ 6.43	$ 836.07	$ 1,537.24
22	D5000	Electrical	For all repairs	1	LS	$ 5,800.00	$ 5,800.00	$ 10,664.21
23	F1000	Special Construction	Allowance for mold	1	LS	$10,000.00	$ 10,000.00	$ 18,386.56
24	G2030	Pedestrian Paving	R-Elev. Deck tile demo	183	SF	$ 1.83	$ 334.06	$ 614.22
25	G2050	Landscaping	Fix at project complete	1	LS	$ 2,280.32	$ 2,280.32	$ 4,192.72
26		**Direct Cost Total**					$ 190,318.36	$ 349,930.02
27								
28		General Conditions	See GC sht.	17.71%			$ 33,706.95	
29		Subtotal					$ 224,025.31	
30								
31		Contractor's Overhead		8.00%			$ 17,922.02	
32		Contractor's Profit		10.00%			$ 22,402.53	
33		Insurance & Bond		2.00%			$ 4,480.51	
34		Subtotal					$ 268,830.37	
35								
36		Contingency on Construction Costs		5.00%			$ 13,441.52	
37		**Total Estimated Construction Costs**					$ 282,271.89	
38								
39		**Other Project Costs:**						
40		Construction Management		5.00%			$ 14,113.59	
41		Architectural/Drafting/Design	Architect	1		ls	$ 20,000.00	
42		Engineering Design	Structural	1		ls	$ 7,500.00	
43		Testing & Inspection	QC	1		ls	$ 20,000.00	
44		Permits & Fees		1.00%			$ 2,822.72	
45		Relocation	Not Incl.	1		ls	$ -	
46		Subtotal of Other Project Costs					$ 64,436.31	
47								
48		Contingency on Other Project Costs		5.00%			$ 3,221.82	
49		**Total of Other Project Costs**					$ 67,658.13	
50								
51		**Total Estimated Project Cost**					**$ 349,930.02**	**$ 349,930.02**

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Estimate Details

#	Item	Description	Notes/Ref.	Qty	Unit	Crew	Hrs	Labor	Material	Other	Subc.	Labor	Material	Other	Subc.	Total Cost	Total Item
1																	
2	B1001	Concrete Structure & Reinforcing	Assume 1/2-inch	183	sf							-	-	-	-	$ -	$ 2,543.21
3	A	Grind concrete at south elevation entrance to provide a weather drop										-	-	-	-	$ -	
4	1	Cover and protect for concrete grinding		1	Locs	D 2	2	144.16	75.00	2.00		144	75	2	-	$ 221.16	
5	2	Grind concrete at south elevation entrance to provide a weather drop		183	SF	C 2	4	1.73		0.80		318	-	146	-	$ 463.90	
6	3	Clean up from concrete grinding		1	Locs	D 2	1	72.08	10.00	15.00		72	10	15	-	$ 97.08	
8	B	Install concrete curb with water stop at South elevation entrance.		1	LS	C 2	8	635.00	250.00			635	250	-	-	$ 885.00	
9	1	Access area of repair, cover and protect surrounding area		1	Locs	D 2	0.5	36.04	10.00	2.00		36	10	2	-	$ 48.04	
10	2	Install forms for curb, reinforcement, and water stop		6	LF	C 2	4	52.92	15.00			318	90	-	-	$ 407.50	
11	3	Place and finish concrete curb, remove and dispose of forms, finish curb.		6	LF	C 2	4	52.92	7.50	2.00		318	45	12	-	$ 374.50	
12	4	Clean up		1	Locs	D 2	0.5	36.04	5.00	5.00		36	5	5	-	$ 46.04	
13																	
14	B1004	Wood Framing & Hardware		1								-	-	-	-		$ 5,104.61
15	A	Remove and dispose of damaged plywood sheeting at 2nd floor deck, Replace damaged sheeting	Issue 1.3	150	SF							-	-	-	-	$ -	
16	1	Access area of repair and protect surrounding areas		1	LS	D 2	1	72.08	10.00	2.00		72	10	2	-	$ 84.08	
17	2	Remove and dispose of damaged plywood sheeting	Est. 150 sf	150	SF	D 3	3	1.98	0.10	0.15		296	15	23	-	$ 333.81	
18	3	Install blocking at plywood ends and edges, install blocking beneath area of new curb		150	SF	RC 3	4	3.68	1.00	0.05		551	150	8	-	$ 708.88	
19	4	Replace damaged plywood sheeting with new	3/4" with blocking at edges	150	SF	RC 3	6	5.51	1.50	0.05		827	225	8	-	$ 1,059.57	
20	5	install new wood framed curb, cut curb at top to provide slope to exterior, secure to underlying blocking		10	LF	RC 3	1	13.78	7.50	0.50		138	75	5	-	$ 217.84	
21	6	Clean up		1	LS	D 2	1	72.08	2.00	5.00		72	2	5	-	$ 79.08	
22																	
23	B	Remove and replace damaged wall sheeting and framing members.	Issue 2.1 and Issue 2.3									-	-	-	-	$ -	
24	1	Access area of repair and protect surrounding areas	No leaks from windows									-	-	-	-	$ -	
25	2	Remove and dispose of damaged plywood sheeting	No leaks from windows									-	-	-	-	$ -	
26	3	Augment wall framing as necessary	No leaks from windows									-	-	-	-	$ -	
27	4	Replace damaged plywood wall sheeting with new	No leaks from windows									-	-	-	-	$ -	
28	5	Clean up	No leaks from windows									-	-	-	-	$ -	
29																	
30	C	Remove and replace damaged wall sheeting and framing members.	Issue 2.5									-	-	-	-	$ -	
31	1	Access area of repair and protect surrounding areas	Included in stucco demo									-	-	-	-	$ -	
32	2	Remove and dispose of damaged plywood sheeting	est. 100 sf	100	SF	D 3	2	1.98	0.10	0.15		198	10	15	-	$ 222.54	
33	2	Remove and dispose of damaged framing		1	LS	D 3	4	395.08	15.00	25.00		395	15	25	-	$ 435.08	
34	3	Augment wall framing as necessary		1	LS	RC 3	6	827.07	350.00	1.00		827	350	1	-	$ 1,178.07	
35	4	Replace damaged plywood wall sheeting with new		100	SF	RC 3	4	5.51	1.00	0.05		551	100	5	-	$ 656.38	
36	5	Clean up		1	LS	D 2	1	72.08	2.00	5.00		72	2	5	-	$ 79.08	
37																	
38	D	At roof window, shape wood sill to prove slope to exterior.	Issue 2.6									-	-	-	-	$ -	
39	1	At roof window, shape wood sill to prove slope to exterior.	Included in stucco demo	1	LS	RC 2	0.5	45.21	5.00			45	5	-	-	$ 50.21	
40												-	-	-	-	$ -	

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Estimate Details

#	Item	Description	Notes/Ref.	Qty	Unit	Crew	Hrs	Labor	Material	Other	Subc.	Labor	Material	Other	Subc.	Total Cost	Total Item
41	B1010	Cementitious Underlayment		620	SF												$ 3,008.52
42	A	Install new cementitious underlayment at deck sloped to drain 1/4" per foot	Issue 1.3														
43	1	Install new cementitious underlayment at deck sloped to drain 1/4" per foot		620	SF	C 3	8	2.34	2.50	0.01		1,452	1,550	6	-	$ 3,008.52	
44																	
45	B2011	Exterior Enclosure: Stucco / Plaster		14	Locs							-	-	-	-		$ 24,693.78
46	A	Scaffolding and pedestrian protection	3 months	1	LS						12,925.00	-	-	-	12,925	$ 12,925.00	
47	B	Remove and replace stucco cladding 16 - 18" around window	Issue 1.1														
48	1	Access area of repair and protect surrounding areas		1	Locs	D 2	0.5	36.04	10.00	2.00		36	10	2	-	$ 48.04	
49	2	Remove and dispose stucco cladding 16-18" around window		1	Locs	D 2	1.5	108.12	5.00	15.00		108	5	15	-	$ 128.12	
50	3	Clean up from stucco demo		1	Locs	D 2	0.7	50.45	2.00	2.00		50	2	2	-	$ 54.45	
51	4	Replace damaged building paper, integrate new with existing, Install new fry reglet and j-moulding where removed. Replace stucco cladding.		1	Locs	SW 3	6	592.62	100.00	5.00		593	100	5	-	$ 697.62	
52	5	Clean up from stucco application		1	Locs	D 2	0.7	50.45	2.00	2.00		50	2	2	-	$ 54.45	
53																	
54	C	Remove and replace stucco 12" up at deck and 16-18" around window and sliding glass doors	Issue 1.3														
55	1	Access area of repair and protect surrounding areas		1	Locs	D 2	0.5	36.04	10.00	2.00		36	10	2	-	$ 48.04	
56	2	Remove and dispose stucco cladding around sliding glass doors and window		3	Locs	D 2	3	72.08	5.00	15.00		216	15	45	-	$ 276.23	
57	3	Remove and dispose stucco cladding at deck to wall		84	SF	D 2	2	1.72	0.20	0.20		144	17	17	-	$ 177.76	
58	4	Clean up from stucco demo		1	Locs	D 2	0.7	50.45	2.00	2.00		50	2	2	-	$ 54.45	
59	5	Replace damaged building paper, integrate new with existing, Install new weep screed and j-moulding where removed. Replace stucco cladding.		84	SF	SW 3	8	9.41	3.00	0.05		790	252	4	-	$ 1,046.36	
60	6	Replace damaged building paper, integrate new with existing, Install new fry reglet and j-moulding where removed. Replace stucco cladding.		3	Locs	SW 3	12	395.08	100.00	5.00		1,185	300	15	-	$ 1,500.24	
61	7	Clean up from stucco application		1	Locs	D 2	0.7	50.45	2.00	2.00		50	2	2	-	$ 54.45	
62																	
63	D	Remove and replace stucco cladding 16 - 18" around windows at east (rear) elevation	Issue 2.1 and Issue 2.3														
64	1	Access area of repair and protect surrounding areas	No leaks from windows									-	-	-	-	$ -	
65	2	Remove and dispose stucco cladding 16-18" around windows	No leaks from windows									-	-	-	-	$ -	
66	3	Remove and dispose stucco cladding at wall	No leaks from windows									-	-	-	-	$ -	
67	4	Clean up from stucco demo	No leaks from windows									-	-	-	-	$ -	
68	5	Replace damaged building paper, integrate new with existing, Install new fry reglet and j-moulding where removed. Replace stucco cladding.	No leaks from windows									-	-	-	-	$ -	
69	6	Replace damaged building paper, integrate new with existing, Install new fry reglet and j-moulding where removed. Replace stucco cladding.	No leaks from windows									-	-	-	-	$ -	
70	7	Clean up from stucco application	No leaks from windows									-	-	-	-	$ -	
71																	

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Estimate Details

#	Item	Description	Notes/Ref.	Qty	Unit	Crew	Hrs	Labor	Material	Other	Subc.	Labor	Material	Other	Subc.	Total Cost	Total Item
72	E	Remove and replace stucco cladding 16 - 18" around window at room 108 and additional areas	Issue 2.5														
73	1	Access area of repair and protect surrounding areas		3	Locs	D 2	1.5	36.04	10.00	2.00		108	30	6	-	$ 144.12	
74	2	Remove and dispose stucco cladding 16-18" around windows	Room 108 approx. 30 sf, add'l locs ave 36 sf, total 102 sf	3	Locs	D 2	3	72.08	5.00	15.00		216	15	45	-	$ 276.23	
75	3	Remove and dispose stucco cladding at wall		100	SF	D 2	2.3	1.66	0.20	0.20		166	20	20	-	$ 205.78	
76	4	Clean up from stucco demo		3	Locs	D 2	2.1	50.45	2.00	2.00		151	6	6	-	$ 163.36	
77	5	Replace damaged building paper, integrate new with existing, Install new fry reglet and j-moulding where removed. Replace stucco cladding.	Room 108 approx. 30 sf, add'l locs ave 36 sf, total 102 sf	3	Locs	SW 3	12	395.08	100.00	5.00		1,185	300	15	-	$ 1,500.24	
78	6	Replace damaged building paper, integrate new with existing, Install new fry reglet and j-moulding where removed. Replace stucco cladding.		100	SF	SW 3	9.4	9.28	3.00	0.05		928	300	5	-	$ 1,233.44	
79	7	Clean up from stucco application		3	Locs	D 2	2.1	50.45	2.00	2.00		151	6	6	-	$ 163.36	
80																	
81	F	Remove and replace stucco cladding 16 - 18" around windows at rooms 204, 205 and 206	Issue 2.6														
82	1	Access area of repair and protect surrounding areas		1	Locs	D 2	1	72.08	10.00	2.00		72	10	2	-	$ 84.08	
83	2	Remove and dispose stucco cladding 16-18" around windows		3	Locs	D 2	3	72.08	5.00	15.00		216	15	45	-	$ 276.23	
84	4	Clean up from stucco demo		1	Locs	D 2	1	72.08	2.00	2.00		72	2	2	-	$ 76.08	
85	5	Replace damaged building paper, integrate new with existing, Install new fry reglet and j-moulding where removed. Replace stucco cladding.		3	Locs	SW 3	12	395.08	100.00	5.00		1,185	300	15	-	$ 1,500.24	
86	7	Clean up from stucco application		1	Locs	D 2	1	72.08	2.00	2.00		72	2	2	-	$ 76.08	
87																	
88	G	Remove and replace stucco cladding 16 - 18" around roof top window	Issue 2.7														
89	1	Access area of repair and protect surrounding areas		1	Locs	D 2	0.5	36.04	10.00	2.00		36	10	2	-	$ 48.04	
90	2	Remove and dispose stucco cladding 16-18" around windows	Approximately 45 sf	1	Locs	D 2	1	72.08	5.00	15.00		72	5	15	-	$ 92.08	
91	3	Clean up from stucco demo		1	Locs	D 2	0.7	50.45	2.00	2.00		50	2	2	-	$ 54.45	
92	4	Replace damaged building paper, integrate new with existing, Install new fry reglet and j-moulding where removed. Replace stucco cladding.	Approximately 45 sf	1	Locs	SW 3	6	592.62	100.00	5.00		593	100	5	-	$ 697.62	
93	5	Clean up from stucco application		1	Locs	D 2	0.7	50.45	2.00	2.00		50	2	2	-	$ 54.45	
94																	
95	H	Remove and replace stucco cladding 16 - 18" around north gable window	Issue 2.8														
96	1	Access area of repair and protect surrounding areas		1	Locs	D 2	0.5	36.04	10.00	2.00		36	10	2	-	$ 48.04	
97	2	Remove and dispose stucco cladding 16-18" around windows	Approximately 60 sf	1	Locs	D 2	1.5	108.12	5.00	15.00		108	5	15	-	$ 128.12	
98	3	Clean up from stucco demo		1	Locs	D 2	0.7	50.45	2.00	2.00		50	2	2	-	$ 54.45	
99	4	Replace damaged building paper, integrate new with existing, Install new fry reglet and j-moulding where removed. Replace stucco cladding.	Approximately 60 sf	1	Locs	SW 3	6	592.62	100.00	5.00		593	100	5	-	$ 697.62	
100	5	Clean up from stucco application		1	Locs	D 2	0.7	50.45	2.00	2.00		50	2	2	-	$ 54.45	
101																	

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Estimate Details

#	Item	Description	Notes/Ref.	Qty	Unit	Crew	Hrs	Labor	Material	Other	Subc.	Labor	Material	Other	Subc.	Total Cost	Total Item
102	B2015	Exterior Wall Insulation		2617	SF							-	-	-	-	$ -	$ 4,741.40
	A	Remove and dispose of deteriorated insulation. Install new insulation where removed															
104	1	Access area of repair and protect surrounding areas		24	Locs	D 2	4.8	14.42	7.00	1.00		346	168	24	-	$ 537.97	
105	2	Remove and dispose of exterior wall insulation		2517	SF	SW 3	8	0.31	0.01	0.03		790	25	76	-	$ 890.84	
106	3	Remove and dispose of exterior wall insulation	Issue 2.5	100	SF	SW 3	0.4	0.40	0.01	0.03		40	1	3	-	$ 43.51	
107	4	Install new exterior wall insulation	Walkers ave 1800 sf / day	2517	SF	SW 3	16	0.63	0.45			1,580	1,133	-	-	$ 2,712.97	
108	5	Install new exterior wall insulation	Issue 2.5	100	SF	SW 3	0.7	0.69	0.45			69	45	-	-	$ 114.14	
109	6	Clean up from insulation installation		24	Locs	D 2	4.8	14.42	2.00	2.00		346	48	48	-	$ 441.97	
110																	
111	B2017	Exterior Guardrail		1	LS												$ 1,629.84
112	A	Remove and reset guardrail	Issue 1.3														
113	1	Remove and store guardrail for reuse		1	LS	D 3	4	395.08	5.00	1.00		395	5	1	-	$ 401.08	
114	2	Re-install guardrail		1	LS	RC 3	8	1,102.76	125.00	1.00		1,103	125	1	-	$ 1,228.76	
115																	
116	B2018	Exterior Wall Accessories		3	Locs							-	-	-	-	$ -	$ 2,453.76
117	A	Remove and reset exterior wall signs	Front and Right Elevations									-	-	-	-	$ -	
118	1	Remove and store exterior wall signs, protect signs in storage		3	Locs	D 3	6	197.54	20.00	2.00		593	60	6	-	$ 658.62	
119	2	Reset exterior wall signs		3	Locs	FC 3	12	551.38	45.00	2.00		1,654	135	6	-	$ 1,795.14	
120																	
121	B2020	Windows		1	LS							-	-	-	-	$ -	$ 36,467.13
122	A	Conduct spray testing of all windows not previously tested by FSI and windows tested by FSI that resulted in water intrusion. Isolate window from stucco wall assembly, test window and inspect for leaks.	Issue 2.8	30	Locs	RC 3	48	220.55	15.00	15.00		6,617	450	450	-	$ 7,516.55	
123	1	Perform additional testing of repaired windows / doors		12	Locs	RC 3	12	137.84	15.00	15.00		1,654	180	180	-	$ 2,014.14	
125	B	At south elevation entrance, remove and store glass and frame. Clean frame of existing sealant. Refer to concrete and doors for repairs to those areas. After installation of raised curb at storefront window side, cut glass and frame. Reinstall window assembly.	Issue 1.1														
126	1	Remove door, sealant, glass and window frame and store for reuse		1	Ea	FC 3	8	1,102.76	25.00	5.00		1,103	25	5	-	$ 1,132.76	
127	2	Clean window frame and glass	5 panels	1	Ea	FC 3	5	689.22	5.00			689	5	-	-	$ 694.22	
128	3	Measure new rough opening and verify dimensions, cut frame.		1	Ea	FC 3	4	551.38	5.00	2.00		551	5	2	-	$ 558.38	
129	4	Replacement of lower glass panels to fit new opening size	Est. 6 lf long by 8' tall	48	SF	FC 1	4	4.87	20.00	0.25		234	960	12	-	$ 1,205.52	
130	5	Re-install and re-assemble window with new gaskets	5 panels	1	Ea	FC 3	8	1,102.76	150.00	2.00		1,103	150	2	-	$ 1,254.76	
131	6	Wet glaze windows at glass to frame		1	Ea	FC 3	1	137.84	30.00	2.00		138	30	2	-	$ 169.84	
132	7	Re-install doors	Included in B 2030									-	-	-	-	$ -	
133	8	Install new threshold in sealant	Included in B 2030									-	-	-	-	$ -	
134	9	Install backer rod and sealant at window to stucco moulding.	Included in B 2050									-	-	-	-	$ -	
135	10	Clean area of repair		1	Ea	SW 2	1	72.08	15.00	15.00		72	15	15	-	$ 102.08	
136																	

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Estimate Details

#	Item	Description	Notes/Ref.	Qty	Unit	Crew	Hrs	Labor	Material	Other	Subc.	Labor	Material	Other	Subc.	Total Cost	Total Item
137	C	At the second floor deck, the window system will need to be removed and reset in order to accomplish the deck waterproofing related repairs and to provide a weather drop. After installation of raised curb at storefront window side, cut glass and frame. Reinstall window assembly.	Issue 1.3														
138	1	Remove door, sealant, glass and window frame and store for reuse		1	Ea	FC 3	8	1,102.76	25.00	5.00		1,103	25	5	-	$ 1,132.76	
139	2	Remove sliding glass doors and store for reuse		2	Ea	FC 3	3	206.77	25.00	5.00		414	50	10	-	$ 473.53	
140	3	Clean window frame and glass	7 panels	1	Ea	FC 3	7	964.91	5.00			965	5	-	-	$ 969.91	
141	4	Clean sliding glass doors		2	Ea	FC 3	3	206.77	5.00			414	10	-	-	$ 423.53	
142	5	Measure new rough opening and verify dimensions, cut frame.		1	Ea	FC 3	4	551.38	5.00	2.00		551	5	2	-	$ 558.38	
143	6	Replacement of lower glass panels to fit new opening size	Est. 10 lf long by 3' tall	30	SF	FC 1	4	7.78	20.00	0.25		234	600	8	-	$ 841.02	
144	7	Re-install and re-assemble window with new gaskets	7 panels	1	Ea	FC 3	8	1,102.76	200.00	2.00		1,103	200	2	-	$ 1,304.76	
145	8	Wet glaze windows at glass to frame		1	Ea	FC 3	1	137.84	30.00	2.00		138	30	2	-	$ 169.84	
146	9	Re-install door	Included in B 2030									-	-	-	-	$ -	
147	10	Re-install sliding glass doors	Included in B 2030									-	-	-	-	$ -	
148	11	Install new threshold in sealant	Included in B 2030									-	-	-	-	$ -	
149	12	Install backer rod and sealant at window to stucco moulding.	Included in B 2050									-	-	-	-	$ -	
150	13	Clean area of repair		1	Ea	SW 2	1	72.08	15.00	15.00		72	15	15	-	$ 102.08	
151																	
152	D	Remove window at room 108 and reinstall window with end dams. Reseal window. Perform similar repair at other locations where this condition occurs and is verified through testing (estimate 2 additional locations).	Issue 2.5														
153	1	Remove sealant, glass and window frame		3	Ea	FC 3	3	137.84		5.00		414	-	15	-	$ 428.53	
154	2	Clean window frame and glass		3	Ea	FC 3	6	275.69	5.00			827	15	-	-	$ 842.07	
155	3	Re-install and re-assemble window with new gaskets		3	Ea	FC 3	6	275.69	145.00	2.00		827	435	6	-	$ 1,268.07	
156	4	Wet glaze windows at glass to frame		3	Ea	FC 3	1.5	68.92	30.00	2.00		207	90	6	-	$ 302.77	
157	5	Install backer rod and sealant at window to stucco moulding.	Included in B 2050									-	-	-	-	$ -	
158	6	Clean area of repair		3	Ea	SW 2	2.1	50.45	15.00	15.00		151	45	45	-	$ 241.36	
159												-	-	-	-	$ -	
160	E	Remove sealant, glass and window frame, clean frame and glass, re-install and re-assemble window with new gaskets, wet seal at glass perimeter with. Install backer rod and sealant at window to stucco moulding. (rooms 204, 205, 206).	Issue 2.6 3 locations, 12 panels each														
161	1	Remove sealant, glass and window frame		3	Ea	FC 3	9	413.53		5.00		1,241	-	15	-	$ 1,255.60	
162	2	Clean window frame and glass		3	Ea	FC 3	9	413.53	5.00			1,241	15	-	-	$ 1,255.60	
163	3	Re-install and re-assemble window with new gaskets		3	Ea	FC 3	12	551.38	145.00	2.00		1,654	435	6	-	$ 2,095.14	
164	4	Wet glaze windows at glass to frame		3	Ea	FC 3	3	137.84	45.00	2.00		414	135	6	-	$ 554.53	
165	5	Install backer rod and sealant at window to stucco moulding.	Included in B 2050									-	-	-	-	$ -	
166	6	Clean area of repair		3	Ea	SW 2	3	72.08	15.00	15.00		216	45	45	-	$ 306.23	
167																	

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Estimate Details

#	Item	Description	Notes/Ref.	Qty	Unit	Crew	Hrs	Labor	Material	Other	Subc.	Labor	Material	Other	Subc.	Total Cost	Total Item
168	F	Roof window - to correct the other problems, this window should be removed and reset necessitating removal and replacement of the adjacent stucco. The incomplete roofing membrane should be continued up the wood framed curb and wrapped to the interior to provide a waterproof assembly and the exterior sheet metal sill flashing should be removed and replaced with a sill pan.	Issue 2.7														
169	1	Remove sealant, glass and window frame		1	Ea	FC 3	3	413.53	5.00	5.00		414	5	5	-	$ 423.53	
170	2	Clean window frame and glass		1	Ea	FC 3	3	413.53	5.00			414	5	-	-	$ 418.53	
171	3	Re-install and re-assemble window with new gaskets		1	Ea	FC 3	5	689.22	145.00	2.00		689	145	2	-	$ 836.22	
172	4	Wet glaze windows at glass to frame		1	Ea	FC 3	1	137.84	45.00	2.00		138	45	2	-	$ 184.84	
173	5	Install backer rod and sealant at window to stucco moulding.	Included in B 2050									-	-	-	-	$ -	
174	6	Clean area of repair		1	Ea	SW 2	0.5	36.04	15.00	15.00		36	15	15	-	$ 66.04	
175																	
176	G	North gable window. EC Lind noted leaking at this location. Remove window assembly and clean window, re-assemble and reinstall window in sheet metal pan and flashings, wet seal glass to frame	Issue 2.8														
177	1	Remove sealant, glass and window frame		1	Ea	FC 3	3	413.53	5.00	5.00		414	5	5	-	$ 423.53	
178	2	Clean window frame and glass		1	Ea	FC 3	3	413.53	5.00			414	5	-	-	$ 418.53	
179	3	Re-install and re-assemble window with new gaskets		1	Ea	FC 3	5	689.22	145.00	2.00		689	145	2	-	$ 836.22	
180	4	Wet glaze windows at glass to frame		1	Ea	FC 3	1	137.84	45.00	2.00		138	45	2	-	$ 184.84	
181	5	Install backer rod and sealant at window to stucco moulding.	Included in B 2050									-	-	-	-	$ -	
182	6	Clean area of repair		1	Ea	SW 2	0.5	36.04	15.00	15.00		36	15	15	-	$ 66.04	
183																	
184	H	Remove and reset window coverings	Issue 1.3, 2.5, 2.7, 2.8														
185	1	Remove, protect, label and store window coverings		37	Ea	D 3	10	26.69	5.00			988	185	-	-	$ 1,172.70	
186	2	Identify and spread window coverings, remove and dispose of protection		37	Ea	FC 3	7.4	27.57		1.00		1,020	-	37	-	$ 1,057.05	
187	3	Install window coverings		37	Ea	FC 3	7.4	27.57	5.00			1,020	185	-	-	$ 1,205.05	
188																	
189	B2030	Exterior Doors		4	Locs							-	-	-	-	$ -	$ 2,233.35
190	A	Remove and reset storefront doors, replace thresholds, provide new weather stripping and clean existing sealant and provide new sealant.	Issue 1.1									-	-	-	-	$ -	
191	1	Re-install doors		1	Ea	FC 3	2	275.69	25.00	2.00		276	25	2	-	$ 302.69	
192	2	Remove and dispose of existing weather stripping, install new weather stripping		2	Ea	FC 3	0.8	55.14	15.00	2.00		110	30	4	-	$ 144.28	
193	3	Install new threshold in sealant		1	Ea	FC 3	1	137.84	75.00	2.00		138	75	2	-	$ 214.84	
195	B	Reset storefront doors, replace thresholds, provide new weather stripping and clean existing sealant and provide new sealant. Reset sliding glass doors	Issue 1.3									-	-	-	-	$ -	
196	1	Re-install door		1	Ea	FC 3	1	137.84	25.00	2.00		138	25	2	-	$ 164.84	
197	2	Remove and dispose of existing weather stripping, install new weather stripping		1	Ea	FC 3	0.4	55.14	15.00	2.00		55	15	2	-	$ 72.14	
198	3	Install new threshold in sealant		1	Ea	FC 3	0.7	96.49	75.00	2.00		96	75	2	-	$ 173.49	
199	4	Re-install sliding glass doors		2	Ea	FC 3	6	413.53	165.00	2.00		827	330	4	-	$ 1,161.07	
200																	

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201	B2040	Exterior Wall Flashing & Sheet metal		1	LS							-	-	-	-	$ -	$ 12,005.73
202	A	Remove and reset downspouts		1	LS	SW 2	6	432.47	75.00	5.00		432	75	5	-	$ 512.47	
204	B	Remove and reset rain gutter at deck	Issue 1.3	1	LS	SW 2	4	288.31	75.00	5.00		288	75	5	-	$ 368.31	
206	C	Install sheet metal drip edge, deck to wall sill pan at windows and entry doors	Issue 1.1									-	-	-	-	$ -	
207	1	Access area of repair and protect surrounding area		1	Locs	D 2	0.5	36.04	2.00	2.00		36	2	2	-	$ 40.04	
208	2	Fabricate and install new sheet metal sill pan at window and door		10	LF	RC 2	4	36.16	7.50	0.05		362	75	1	-	$ 437.14	
209	3	Install new sheet metal flashing jambs and head of window		30	LF	RC 2	2	6.03	4.50	0.05		181	135	2	-	$ 317.32	
210	4	Install new sheet metal drip edge at deck		30	LF	RC 2	1.5	4.52	2.50	0.05		136	75	2	-	$ 212.12	
211	5	Install new deck to wall flashing		6	LF	RC 2	0.3	4.52	3.50	0.05		27	21	0	-	$ 48.42	
212	6	Clean up		1	Locs	D 2	0.5	36.04	2.00	2.00		36	2	2	-	$ 40.04	
213																	
214	D	Remove and dispose of existing sheet metal flashing at deck, install new sheet metal flashing at deck	Issue 1.3									-	-	-	-	$ -	
215	1	Access area of repair and protect surrounding area	Included in waterproofing									-	-	-	-	$ -	
216	2	Remove and dispose of existing sheet metal flashing at deck to wall and drip edge		116	LF	D 2	2	1.24	0.15	0.05		144	17	6	-	$ 167.36	
217	3	Install new sheet metal drip edge at deck		30	LF	RC 2	1.5	4.52	2.50	0.05		136	75	2	-	$ 212.12	
218	4	Install new deck to wall flashing		86	LF	RC 2	4.3	4.52	3.50	0.05		389	301	4	-	$ 694.07	
219	5	Fabricate and install new sheet metal sill pan at window and door		15	LF	RC 2	6	36.16	7.50	0.05		542	113	1	-	$ 655.72	
220	6	Fabricate and install new sheet metal sill pan at sliding glass doors		20	LF	RC 2	8	36.16	7.50	0.05		723	150	1	-	$ 874.29	
221	7	Install new sheet metal flashing jambs and head of window and sliding glass doors		120	LF	RC 2	8	6.03	4.50	0.05		723	540	6	-	$ 1,269.29	
222	8	Clean up		1	LS	D 2	0.5	36.04	2.00	2.00		36	2	2	-	$ 40.04	
223																	
224	E	Install sheet metal sill pan at windows	Issue 2.5									-	-	-	-	$ -	
225	1	Access area of repair and protect surrounding area		3	Locs	D 2	1.5	36.04	2.00	2.00		108	6	6	-	$ 120.12	
226	2	Fabricate and install new sheet metal sill pan at window and door	3 Locs. Ave 6 lf / ea.	18	LF	RC 2	7.2	36.16	7.50	0.05		651	135	1	-	$ 786.86	
227	3	Install new sheet metal flashing jambs and head of window and sliding glass doors		54	LF	RC 2	3.6	6.03	4.50	0.05		325	243	3	-	$ 571.18	
228	4	Clean up		1	Locs	D 2	1.5	108.12	2.00	2.00		108	2	2	-	$ 112.12	
229																	
230	F	Install sheet metal sill pan at windows	Issue 2.6									-	-	-	-	$ -	
231	1	Access area of repair and protect surrounding area		3	Locs	D 2	1.5	36.04	2.00	2.00		108	6	6	-	$ 120.12	
232	2	Fabricate and install new sheet metal sill pan at window and door	3 locs. Ave 10 lf / ea.	30	LF	RC 2	12	36.16	7.50	0.05		1,085	225	2	-	$ 1,311.43	
233	3	Install new sheet metal flashing jambs and head of window and sliding glass doors		78	LF	RC 2	5.2	6.03	4.50	0.05		470	351	4	-	$ 825.04	
234	4	Clean up		3	Locs	D 2	1.5	36.04	2.00	2.00		108	6	6	-	$ 120.12	
235																	

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Estimate Details

#	Item	Description	Notes/Ref.	Qty	Unit	Crew	Hrs	Labor	Material	Other	Subc.	Labor	Material	Other	Subc.	Total Cost	Total Item
236	F	Install sheet metal sill pan at windows at roof window and North (left) elevation Gable windows	Issue 2.7 & 2.8									-	-	-	-	$ -	
237	1	Access area of repair and protect surrounding area		3	Locs	D 2	1.5	36.04	2.00	2.00		108	6	6	-	$ 120.12	
238	2	Fabricate and install new sheet metal sill pan at window	2 locs. Ave 15 lf / ea.	30	LF	RC 2	12	36.16	7.50	0.05		1,085	225	2	-	$ 1,311.43	
239	3	Install new sheet metal flashing jambs and head of window and sliding glass doors		56	LF	RC 2	3.8	6.14	4.50	0.05		344	252	3	-	$ 598.36	
240	4	Clean up		3	Locs	D 2	1.5	36.04	2.00	2.00		108	6	6	-	$ 120.12	
241																	
242	B2050	Joint Sealants		12	Locs							-	-	-	-	$ -	$ 1,650.54
243	A	Install sealant and backer rod at stucco j-mold to window transitions.										-	-	-	-	$ -	
244	1	Install backer rod and sealant at window to stucco moulding.	Issue 1.1	1	Ea	FC 3	0.5	68.92	40.00	2.00		69	40	2	-	$ 110.92	
245	2	Install backer rod and sealant at window to stucco moulding.	Issue 1.3 7 panels	1	Ea	FC 3	0.7	96.49	50.00	2.00		96	50	2	-	$ 148.49	
246	3	Install backer rod and sealant at window to stucco moulding.	Issue 1.3 2 Sliding Glass doors	2	Ea	FC 3	1.2	82.71	40.00	2.00		165	80	4	-	$ 249.41	
247	4	Install backer rod and sealant at window to stucco moulding.	Issue 2.5	3	Ea	FC 3	1.5	68.92	40.00	2.00		207	120	6	-	$ 332.77	
248	5	Install backer rod and sealant at window to stucco moulding.	Issue 2.6 3 locations, 12 panels each	3	Ea	FC 3	1.8	82.71	40.00	2.00		248	120	6	-	$ 374.12	
249	6	Install backer rod and sealant at window to stucco moulding.	Issue 2.7 1 location	1	Ea	FC 3	1.2	165.41	50.00	2.00		165	50	2	-	$ 217.41	
250	6	Install backer rod and sealant at window to stucco moulding.	Issue 2.8 1 location North gable window	1	Ea	FC 3	1.2	165.41	50.00	2.00		165	50	2	-	$ 217.41	
251																	
252	B2060	Exterior Coatings (Paint)		1								-	-	-	-	$ -	$ 12,284.19
253	A	Paint exterior surfaces															
254	1	Power wash walls	o = 2 power washers at $75/ea.	1	LS	D 3	16	1,580.32	40.00	150.00		1,580	40	150	-	$ 1,770.32	
255	2	Paint exterior wall surfaces	Front, Right, Left, Rear and roof at right	8972	SF	SW 4	40	0.72	0.30	0.01		6,442	2,692	90	-	$ 9,223.42	
256	3	Paint guardrail at deck		1	LS	SW 3	3	296.31	10.00	2.00		296	10	2	-	$ 308.31	
257	4	Paint rain gutters and downspouts		1	LS	SW 3	3	296.31	10.00	2.00		296	10	2	-	$ 308.31	
258	5	Prep and paint exterior signage		3	Ea	SW 3	4.5	148.16	20.00	2.00		444	60	6	-	$ 510.47	
259	6	Clean up from paint coat application		1	LS	D 2	2.1	151.36	6.00	6.00		151	6	6	-	$ 163.36	
260																	
261	B3002	Low Slope Roofing		1								-	-	-	-	$ -	$ 378.48
262	A	Coordinate with window removal and reset in Issue 2.7. Power wash roof in area of repair. Install roofing / waterproofing membrane over top of curb and lapped to existing membrane.	Issue 2.7									-	-	-	-	$ -	
263	1	Access area of repair and protect surrounding area		1	LS	D 2	0.5	36.04	2.00	2.00		36	2	2	-	$ 40.04	
264	2	Install Alsan, liquid applied flashing embedded in cloth mesh in accordance with manufacturers instructions. Lap Alsan flashing to existing roofing membrane, top of curb and up jamb framing.		1	LS	RC 2	2	180.82	85.00	2.00		181	85	2	-	$ 267.82	
265	3	Install color matched granules to exposed area.		1	LS	RC 2	0.2	18.08	11.50	1.00		18	12	1	-	$ 30.58	
266	4	Clean up		1	LS	D 2	0.5	36.04	2.00	2.00		36	2	2	-	$ 40.04	
267																	

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Estimate Details

#	Item	Description	Notes/Ref.	Qty	Unit	Crew	Hrs	Labor	Material	Other	Subc.	Labor	Material	Other	Subc.	Total Cost	Total Item
268	B3004	Roof Flashing & Trim		1								-	-	-	-	$ -	$ 222.53
269	A	Remove and dispose of existing sheet metal flashing at roof, install new sheet metal flashing and counter-flashing at window at roof	Issue 2.7									-	-	-	-	$ -	
270	1	Access area of repair and protect surrounding area	Included in roofing									-	-	-	-	$ -	
271	2	Remove and dispose of existing sheet metal flashing		15	LF	D 2	1	4.81	0.15	0.05		72	2	1	-	$ 75.08	
272	4	Install new sheet metal counter-flashing at roof to wall	approximately 1.5 ft. on each side	1	LS	RC 2	1	90.41	15.00	2.00		90	15	2	-	$ 107.41	
273	5	Clean up		1	LS	D 2	0.5	36.04	2.00	2.00		36	2	2	-	$ 40.04	
274																	
275	B3007	Waterproof Decks (Horizontal WP)		803	SF							-	-	-	-	$ -	$ 13,939.09
276	A	At south end entrance, remove and dispose of tile, after concrete repairs, install waterproofing at landing.	Issue 1.1									-	-	-	-	$ -	
277	1	Access area of repair and protect surrounding area		1	LS	D 2	0.5	36.04	10.00			36	10	-	-	$ 46.04	
278	2	Install waterproofing at landing	Base coat, top coat, sealant at joints and fillet at transitions	183	SF	SW 3	8	4.32	5.50	0.02		790	1,007	4	-	$ 1,800.32	
279	3	Clean up		1	LS	D 2	0.5	36.04	5.00	5.00		36	5	5	-	$ 46.04	
280																	
281	B	At west elevation deck remove and replace waterproofing	Issue 1.3									-	-	-	-	$ -	
282	1	Access area of repair and protect surrounding area		1	LS	D 2	1	72.08	30.00			72	30	-	-	$ 102.08	
283	2	Remove and dispose of existing waterproofing		620	SF	D 3	6	0.96	0.15	0.05		593	93	31	-	$ 716.62	
284	3	Install new waterproof membrane at plywood sheeting	Base coat, sealant at joints and fillet at transitions	620	SF	SW 3	24	3.82	3.50	0.02		2,370	2,170	12	-	$ 4,552.88	
285	4	Install new waterproof membrane at deck	Base coat, top coat, sealant at sheet metal and fillet at transitions	620	SF	SW 3	32	5.10	5.50	0.02		3,161	3,410	12	-	$ 6,583.04	
286	5	Clean up		1	LS	D 2	1	72.08	10.00	10.00		72	10	10	-	$ 92.08	
287																	
288	C 1035	Finish Carpentry		1	LS												$ 2,376.56
289		Wood Stools															
290	A	Remove and reset wood stools at windows	Sanctuary														
291	1	Remove, protect and store wood stools		3	Ea	FC 2	1.5	45.21	5.00			136	15	-	-	$ 150.62	
292	2	Re-install wood stools		3	Ea	FC 2	1.5	45.21	2.00	1.00		136	6	3	-	$ 144.62	
293	3	Re-finish wood stools	included in paint									-	-	-	-	$ -	
294																	
295	B	Wainscot		30	LF												
296	1	Remove and reset wall wainscot	Sanctuary														
297	2	Remove, protect, label and store wall wainscot, chair rail and base		30	LF	FC 3	6	27.57	2.00			827	60	-	-	$ 887.07	
298	3	Re-install wall wainscot including chair rail and base		30	LF	FC 3	8	36.76	3.00	0.05		1,103	90	2	-	$ 1,194.26	
299	4	Re-finish wall wainscot including chair rail and base	Included in paint									-	-	-	-	$ -	
300																	

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Estimate Details

#	Item	Description	Notes/Ref.	Qty	Unit	Crew	Hrs	Labor	Material	Other	Subc.	Labor	Material	Other	Subc.	Total Cost	Total Item
301	C3010	Gypsum Wallboard		2517	SF							-	-	-	-	$ -	$ 23,320.94
302	A	Remove and store owners contents, Remove and dispose of existing drywall around windows. Replace drywall around windows where removed. Texture to match existing. Re-set owners contents.										-	-	-	-	$ -	
303	1	Remove and store owner contents in areas of repair. At completion of repairs, re-set owner contents		1	LS	D 4	40	6,442.10	2,500.00	150.00		6,442	2,500	150	-	$ 9,092.10	
304	2	Access area of repair and protect surrounding area	Rooms with drywall removal	24	EA	D 6	12	125.56	50.00			3,013	1,200	-	-	$ 4,213.44	
305	3	Remove and dispose of drywall around windows		2517	SF	D 3	24	0.94		0.12		2,370	-	302	-	$ 2,672.52	
306	4	Replace drywall around windows where removed. Texture to match existing.		2517	SF	SW 3	32	1.26	1.00			3,161	2,517	-	-	$ 5,677.64	
307	5	Clean up		24	EA	D 3	12	49.39	10.00	10.00		1,185	240	240	-	$ 1,665.24	
308																	
309	C3011	Interior Paint		11111	SF							-	-	-	-	$ -	$ 14,633.07
310	A	Prime new gypsum wall board, paint walls in rooms where window repairs performed.										-	-	-	-	$ -	
311	1	Mask and prep area for paint		24	EA	SW 2	24	72.08	15.00	1.00		1,730	360	24	-	$ 2,113.86	
312	2	Prime new gypsum wall board		2517	SF	SW 2	8	0.23	0.15	0.01		577	378	25	-	$ 979.34	
313	3	Paint all walls in rooms where repairs performed, 2 coats		11111	SF	SW 4	40	0.58	0.30	0.01		6,442	3,333	111	-	$ 9,886.51	
314	4	Prime stained ceiling in room 204		27	SF	SW 2	0.1	0.27	0.15	0.01		7	4	0	-	$ 11.53	
315	5	Paint stained ceiling in room 204 (2 coats)		27	SF	SW 4	0.1	0.60	0.30	0.01		16	8	0	-	$ 24.48	
316	6	Re-finish wood stools		3	EA	SW 2	2.1	50.45	5.00	1.00		151	15	3	-	$ 169.36	
317	7	Re-finish wall chair rail and base at wainscot, touch up wainscot		30	LF	SW 2	6	14.42	1.00	0.02		432	30	1	-	$ 463.07	
318	8	Clean up		24	EA	SW 2	12	36.04	2.00	3.00		865	48	72	-	$ 984.93	
319																	
320	C3012	Interior Wall Covering & Finishes		1127	SF							-	-	-	-	$ -	$ 2,086.87
321	A	Install new wall paper at walls										-	-	-	-	$ -	
322	1	Access area of repair and protect surrounding area		2	Ea	SW 2	1	36.04	5.00	15.00		72	10	30	-	$ 112.08	
323	2	Install new wall paper at walls		1127	SF	SW 3	12	1.05	0.60	0.01		1,185	676	11	-	$ 1,872.71	
324	3	Clean area of repair		2	Ea	SW 2	1	36.04	10.00	5.00		72	20	10	-	$ 102.08	
325																	
326	C3023	Floor Finishes: Resilient		1326	SF							-	-	-	-	$ -	$ 5,294.32
327	A	Remove and Replace cove base and resilient flooring										-	-	-	-	$ -	
328	1	Access area of repair and protect surrounding area		2	Ea	SW 2	1	36.04	5.00	15.00		72	10	30	-	$ 112.08	
329	2	Remove and dispose of existing cove base		301	LF	SW 2	1.5	0.36	0.05	0.02		108	15	6	-	$ 129.19	
330	3	Remove and dispose of existing damaged resilient flooring		1326	SF	SW 2	6	0.33	0.05	0.15		432	66	199	-	$ 697.67	
331	4	Replace resilient flooring along line of sight		1326	SF	SW 3	8	0.60	2.00	0.02		790	2,652	27	-	$ 3,468.68	
332	5	Install new cove base		301	LF	SW 2	6	1.44	1.15	0.02		432	346	6	-	$ 784.64	
333	6	Clean area of repair		2	Ea	SW 2	1	36.04	10.00	5.00		72	20	10	-	$ 102.08	
334																	
335	C3024	Floor Finishes: Carpet		130	SF							-	-	-	-	$ -	$ 836.07
336	A	Replace damaged carpet										-	-	-	-	$ -	
337	1	Access area of repair and protect surrounding area		1	Loc	SW 2	1	72.08	5.00	15.00		72	5	15	-	$ 92.08	
338	2	Remove and dispose of existing damaged carpet		130	SF	SW 2	1	0.55	0.05	0.15		72	7	20	-	$ 98.08	
339	3	Prep floor and replace carpet in room		130	SF	SW 2	3	1.66	2.50	0.02		216	325	3	-	$ 543.83	
340	4	Clean area of repair		2	Ea	SW 2	1	36.04	10.00	5.00		72	20	10	-	$ 102.08	
341																	

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Estimate Details

#	Item	Description	Notes/Ref.	Qty	Unit	Crew	Hrs	Labor	Material	Other	Subc.	Labor	Material	Other	Subc.	Total Cost	Total Item
342	D5000	Electrical		1	LS							-	-	-	-	$ -	$ 5,800.00
343	A	Remove and reset interior electrical components for interior repairs.	2 man crew ($85 + $45 / hr. + materials)	1	LS	Subc	24		300.00		3,120 00	-	300	-	3,120	$ 3,420.00	
344	B	Remove and reset exterior electrical components for repairs.	2 man crew ($85 + $45 / hr. + materials)	1	LS	Subc	16		300.00		2,080 00	-	300	-	2,080	$ 2,380.00	
345																	
346	F1000	Special Construction		1	LS							-	-	-	-	$ -	$ 10,000.00
347	A	Allowance for water damage and microbial growth remediation		1	LS		0	10,000.00				10,000	-	-	-	$ 10,000.00	
348																	
349	G2030	Pedestrian Paving		183	SF							-	-	-	-	$ -	$ 334.06
350	A	Remove and dispose of tile at South Elevation entrance		183	SF	D 2	4	1.58		0.25		288	-	46	-	$ 334.06	
351																	
352	G2050	Landscaping		1	LS							-	-	-	-	$ -	$ 2,280.32
353	A	Protect landscaping, remove and store as necessary, Replace damaged landscaping.		1	LS	SW 3	16	1,580.32	650.00	50.00		1,580	650	50	-	$ 2,280.32	
354																	
355																	
356																	
357												127,014	41,579	3,601	18,125	$ 190,318.36	$ 190,318.36

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Labor

	Code	Unit	Rate	Description																
				Laborer			Carpenter			Conc. Fin.			Roofer			Asst. Project	Project			
	#			App	Jou	For.	App	Jou	For.	App	Jou	For.	App	Jou	For.	Manager	Manager	Supt.	Average	
1	Cost Unburdened			15.00	20.00	25.00	18.00	32.50	40.00	20.00	30.00	40.00	20.00	30.00	40.00	35.00	60.00	50.00	31.70	
2	Health Care	$ -	/Hr	0.00	0.00	0 00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3	Vacation	$ -	/Hr	0.00	0.00	0 00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4	Education	$ -	/Hr	0.00	0.00	0 00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5	FICA	7.65%	%	1.15	1.53	1.91	1.38	2.49	3.06	1.53	2.30	3.06	1.53	2.30	3 06	2.68	4.59	3.83	2.43	
6	State	0.00%	%	0.00	0.00	0 00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0 00	0.00	0.00	0.00	0.00	
7	Federal Unemp	0.80%	%	0.12	0.16	0 20	0.14	0.26	0.32	0.16	0.24	0.32	0.16	0.24	0 32	0.28	0.48	0.40	0.25	
8	FUTA	8.00%	%	1.20	1.60	2 00	1.44	2.60	3.20	1.60	2.40	3.20	1.60	2.40	3 20	2.80	4.80	4.00	2.54	
9	SDI	0.00%	%	0.00	0.00	0 00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0 00	0.00	0.00	0.00	0.00	
10	State Unemp	3.50%	%	0.53	0.70	0 88	0.63	1.14	1.40	0.70	1.05	1.40	0.70	1.05	1.40	1.23	2.10	1.75	1.11	
11	Workman's Comp BLW $21	48.00%	%	7.20	9.60		8.64			9.60						1.75	3.00		6.63	
12	Workman's Comp ABV $21	16.00%	%			4 00		5.20	6.40		4.80	6.40						8.00	5.80	
13	Roofer BLW $21	75.00%	%										15.00						15.00	
14	Roofer ABV $21	50.00%	%											15.00	20.00				17.50	
15	Vehicle	0.00%	%	0.00	0.00	0 00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0 00	0.00	0.00	0.00	0.00	
16	Liability Insurance	10.00%	%	1.50	2.00	2 50	1.80	3.25	4.00	2.00	3.00	4.00	2.00	3.00	4 00	3.50	6.00	5.00	3.17	
17																				
18	Burdened $/Hr.			26.69	35.59	36.49	32.03	47.43	58.38	35.59	43.79	58.38	40.99	53.99	71.98	47.23	80.97	72.98	49.50	
19	Percent Overhead			0.44	0.44	0.31	0.44	0.31	0.31	0.44	0.31	0.31	0.51	0.44	0.44	0.26	0.26	0.31	0.37	
20	Labor rates from CA Department of Labor 1st Qtr 2014																			
21	App = 25 percentile Jou = Mean For = 75 percentile																		**Crew Cost**	**With**
22																			**20%**	**O&P**
23	**Demolition**																			
24	**D 1**					1													$ 36.49	$ 43.79
25	**D 2**				1	1													$ 72.08	$ 86.49
26	**D 3**			1	1	1													$ 98.77	$118.52
27	**D 4**			2	2	1													$ 161.05	$193.26
28	**D 5**			1	1			1	1										$ 168.10	$201.72
29	**D 6**			1	2			2	1										$ 251.12	$301.34
30	**D 7**			2	2	1		2	1										$ 314.30	$377.16
31	**D 8**			2	3	1		3	1										$ 397.32	$476.79
32	**Site Work**																			
33	**SW 1**					1													$ 36.49	$ 43.79
34	**SW 2**				1	1													$ 72.08	$ 86.49
35	**SW 3**			1	1	1													$ 98.77	$118.52
36	**SW 4**			2	2	1													$ 161.05	$193.26
37	**SW 5**			1	1			1	1										$ 168.10	$201.72
38	**SW 6**			1	2			2	1										$ 251.12	$301.34
39	**SW 7**			2	2	1		2	1										$ 314.30	$377.16
40	**SW 8**			2	3	1		3	1										$ 397.32	$476.79
41	**SW 9**			2	3	1		3	1		1								$ 441.11	$529.33
42	**Concrete**																			
43	**C 1**										1								$ 43.79	$ 52.54
44	**C 2**									1	1								$ 79.38	$ 95.25
45	**C 3**									1	2	1							$ 181.54	$217.85
46	**C 4**							1			3								$ 178.79	$214.55
47	**C 5**				1			2			3								$ 261.81	$314.18
48	**C 6**			1	1		1	1		1	3								$ 308.69	$370.43
49	**Rough Carpentry**																			
50	**RC 1**								1										$ 58.38	$ 70.06
51	**RC 2**						1		1										$ 90.41	$108.49
52	**RC 3**						1	1	1										$ 137.84	$165.41
53	**RC 4**						1	2	1										$ 185.28	$222.33
54	**RC 5**						2	2	1										$ 217.31	$260.77
55	**RC 6**						3	3	1										$ 296.77	$356.13
56	**RC 7**				1		2	2	1										$ 252.90	$303.48
57	**RC 8**				2		2	2	1										$ 288.49	$346.19
58	**Finish Carpentry**																			
59	**FC 1**								1										$ 58.38	$ 70.06
60	**FC 2**						1		1										$ 90.41	$108.49
61	**FC 3**						1	1	1										$ 137.84	$165.41
62	**FC 4**						1	2	1										$ 185.28	$222.33
63	**FC 5**						2	2	1										$ 217.31	$260.77
64	**Roofing**																			
65	**RF 1**												1						$ 40.99	$ 49.19
66	**RF 2**													1					$ 53.99	$ 64.78
67	**RF 3**														1				$ 71.98	$ 86.38
68	**RF 4**												1	2					$ 148.96	$178.75
69	**RF 5**												2	2					$ 189.95	$227.94
70	**RF 6**												2	2	1				$ 261.93	$314.32

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General Conditions

#	Item	Description	Notes/Ref.	Qty	Unit	Labor	Material	Other	Subc.	Labor	Material	Other	Subc.	Total Cost	Total Item
1		GENERAL CONDITIONS:													
2		On-Site Supervision Staff								-	-	-	-	-	18,974
3	1	Superintendent	1/2 time	3	mo	$6,325				18,974	-	-	-	18,974	
4															
5		Temporary Facilities - Set Up & Removal								-	-	-	-	-	2,224
6	1	Office Trailer(s)			ls					-	-	-	-	-	
7	2	Temporary Structures			ls					-	-	-	-	-	
8	3	Enclosure(s) & Compound								-	-	-	-	-	
9	4	Fencing Site	3 months	1	ls			$2,224.20		-	-	2,224	-	2,224	
10															
11		Temporary Facilities - Monthly:								-	-	-	-	-	2,250
12	1	Office Trailer(s)			mo					-	-	-	-	-	
13	2	Storage Containers	Storage in garage		mo					-	-	-	-	-	
14	3	Electrical		3	mo			$400.00		-	-	1,200	-	1,200	
15	4	Toilets	Use downstairs restroom		mo					-	-	-	-	-	
16	5	Delivery & maintenance													
17	6	Vandal Anchors													
18	7	Water - Construction								-	-	-	-	-	
19	8	Monthly Usage		3	mo			$200.00		-	-	600	-	600	
20	9	Office Supplies			mo					-	-	-	-	-	
21	10	Office Equipment			mo					-	-	-	-	-	
22	11	Copier(s)	1 each		mo					-	-	-	-	-	
23	12	Computer(s)	1 each		mo					-	-	-	-	-	
24	13	Phone(s)	1 cell	3	mo			$150.00		-	-	450	-	450	
25	14	Printer(s)	1 each		mo					-	-	-	-	-	
26	15	Furniture	1 each		mo					-	-	-	-	-	
27	16	Marker Boards, etc			mo					-	-	-	-	-	
28															
29		Clean-Up								-	-	-	-	-	6,659
30	1	General Clean Up - Daily								-	-	-	-	-	
31	2	Labor	App laborer 1 hr/ day	3	mo	$ 729.75				2,189	-	-	-	2,189	
32	3	Dumpsters	Additional disposal cost included in line items	1	ea			$750.00		-	-	750	-	750	
33	4	Dump Fees			ea					-	-	-	-	-	
34	5	General Clean Up - Final								-	-	-	-	-	
35	6	Labor			mo					-	-	-	-	-	
36	7	Dumpsters			ea					-	-	-	-	-	
37	8	Dump Fees			ea					-	-	-	-	-	
38	9	Cleaning Service	Crew = 3 man w/ equipment @ $110.00/hr + materials	4	days		$50.00		$880 00	-	200	-	3,520	3,720	
39															
40		Scaffolding	Included in line items							-	-	-	-	-	
41		Dumpsters	See work							-	-	-	-	-	
42															

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General Conditions

#	Item	Description	Notes/Ref.	Qty	Unit	Labor	Material	Other	Subc.	Labor	Material	Other	Subc.	Total Cost	Total Item
43		Small Tools								-	-	-	-	-	
44	1	Equipment			mo					-	-	-	-	-	
45	2	Safety & First Aid								-	-	-	-	-	
46	3	Shovels, wheelbarrows, etc.			ls					-	-	-	-	-	
47															
48		Safety								-	-	-	-	-	350
49	1	Program Set-up		1	ls		$150.00			-	150	-	-	150	
50	2	Monitoring & Enforcement								-	-	-	-	-	
51	3	Safety Consultant			mo					-	-	-	-	-	
52	4	Safety Inspector			mo					-	-	-	-	-	
53	5	First Aid Boxes								-	-	-	-	-	
54	6	Set-up/Purchase		1	ea		$100.00			-	100	-	-	100	
55	7	Monthly Inspection & Supplies		2	mo		$50.00			-	100	-	-	100	
56															
57		Project Documentation, Job Photo Log								-	-	-	-	-	1,750
58	1	Construction Plans & Specifications		3	set		$250.00			-	750	-	-	750	
59	2	Project Surveys								-	-	-	-	-	
60	3	Pre-Construction			ls					-	-	-	-	-	
61	4	Ongoing			ls					-	-	-	-	-	
62	5	Post Construction			ls					-	-	-	-	-	
63	6	Progress Photos		3	mo			$200.00		-	-	600	-	600	
64	7	Job Closeout								-	-	-	-	-	
65	8	As-builts		1	ls			$400.00		-	-	400	-	400	
66	9	Punch List(s)	Included in Supt time		ls					-	-	-	-	-	
67	10	Certificate of Occupancy			ls					-	-	-	-	-	
68															
69		Repairs / Protection / Cutting & Patching								-	-	-	-	-	
70	1	Public Street Repairs			ls					-	-	-	-	-	
71	2	Protect New Work During Construction			ls					-	-	-	-	-	
72	3	Repair New Work During Construction			ls					-	-	-	-	-	
74		Scheduling								-	-	-	-	-	
75	1	Original Set-up	Included in Supt time		ls					-	-	-	-	-	
76	2	Monthly update			mo					-	-	-	-	-	
78		Lifting & Material Movement								-	-	-	-	-	1,500
79	1	Forklifts			mo					-	-	-	-	-	
80	2	Other	man lift	1	ls			1500		-	-	1,500	-	1,500	
81															
82		TOTAL GENERAL CONDITIONS								21,163	1,300	7,724	3,520	33,707	33,707

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Quantity Take Off

#	Item	Description	Notes/Ref.	QTY	Unit
1					
2	B1000	Structural Frame (incl. Floor, Wall and Roof)			
3	B1001	Concrete Structure & Reinforcing			
4	A	Grind concrete at south elevation entrance to provide a weather drop		183	SF
5	B	Install concrete curb with water stop at South elevation entrance.		6	LF
6					
7	B1004	Wood Framing & Hardware			
8	A	Remove and dispose of damaged plywood sheeting at 2nd floor deck, Replace damaged sheeting	est.	150	SF
9	B	Remove and replace damaged wall sheeting and framing members.	Issue 2.1 and Issue 2.3		
10	C	Remove and replace damaged wall sheeting and framing members.	Issue 2.5	100	SF
11	D	At roof window, shape wood sill to prove slope to exterior.	Issue 2.6		
12					
13	B2010	Exterior Enclosure			
14	B2011	Exterior Enclosure: Stucco / Plaster			
15	A	Scaffolding and pedestrian protection	350 LF total, 60% 3 tier, 40% 4 tier		
16	B	Remove and replace stucco cladding around window	Issue 1.14	1	Locs
17	C	Remove and replace stucco 16-18" around window and sliding glass doors	Issue 1.3	2	Locs
18	C	Remove and replace stucco 12" up at deck	Issue 1.3	84	SF
19	D	Remove and replace stucco cladding 16 - 18" around windows at east (rear) elevation	Issue 2.1 and Issue 2.3	0	Locs
20	E	Remove and replace stucco cladding 16 - 18" around window at room 108 and 2 additional areas	Issue 2.5	3	Locs
21	E	Remove and replace stucco cladding adjacent to window for other leak areas	Issue 2.5	100	SF
22	F	Remove and replace stucco cladding 16 - 18" around window at room 204, 205 and 206	Issue 2.6	3	Locs
23	G	Remove and replace stucco cladding 16 - 18" around roof top window	Issue 2.7	1	Locs
24	H	Remove and replace stucco cladding 16 - 18" around left elev gable window	Issue 2.8	1	Locs
25					
26	B2015	Exterior Wall Insulation			
27	A	Remove and dispose of exterior wall insulation			
28	1	1st Floor		1164	SF
29	2	2nd Floor		1353	SF
30	3	Total		2517	SF
32	B	Install new exterior wall insulation			
33	1	1st Floor		1164	SF
34	2	2nd Floor		1353	SF
35	3	Total		2517	SF
36					
37	B2018	Exterior Wall Accessories & Decorative Metal			
38	A	Remove and reset exterior wall signs		3	Locs
39					
40	B2020	Windows			
41	A	Conduct spray testing of all windows not previously tested by FSI and windows tested by FSI that resulted in water intrusion.		30	Ea
42		Conduct additional spray testing to repaired window assemblies		10	Ea
43		Estimated additional repaired windows		2	Ea
44					
45	B	At south elevation entrance, remove and store glass and frame. Clean frame of existing sealant. Cut frame and install new glass at lower portion. Re-assemble and re-install window	Issue 1.1 5 panels	1	Loc
46	C	At the second floor deck, remove and store glass and frame. Clean frame of existing sealant. Cut frame and install new glass at lower portion. Re-assemble and re-install window	Issue 1.3 7 panels	1	Loc
47	C	At the second floor deck, 2 sliding doors	Issue 1.3	2	Loc

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Quantity Take Off

#	Item	Description	Notes/Ref.	QTY	Unit
48	D	Remove window at room 108 and reinstall window with end dams. Reseal window. Perform similar repair at other locations where this condition occurs and is verified through testing (estimate 2 additional locations).	Issue 2.5 1 loc est 2 add'l locs	3	Loc
49	E	Remove sealant, glass and window frame, clean frame and glass, re-install and re-assemble window with new gaskets, wet seal at glass perimeter. Install backer rod and sealant at window to stucco moulding. (rooms 204, 205, 206).	Issue 2.6 3 locations, 12 panels each	3	Loc
50	F	Roof window - Remove sealant, glass and window frame, clean frame and glass, re-install and re-assemble window with new gaskets, wet seal at glass perimeter.	Issue 2.7	1	Loc
51	G	Left elevation gable window - Remove sealant, glass and window frame, clean frame and glass, re-install and re-assemble window with new gaskets, wet seal at glass perimeter.	Issue 2.8	1	Loc
52					
53	B2022	Storefronts			
54	B2030	Exterior Doors			
55	A	Remove and reset storefront doors, replace thresholds, provide new weather stripping and clean existing sealant and provide new sealant.	Issue 1.1	1	Loc
56	B	Reset storefront doors, replace thresholds, provide new weather stripping and clean existing sealant and provide new sealant.	Issue 1.3	1	Loc
57	B	Reset sliding glass doors	Issue 1.3	2	Locs
58					
59	B2040	Exterior Wall Flashing & Sheet metal			
60	A	Remove and reset downspouts		1	
61	B	Remove and reset rain gutter at deck	Issue 1.3		
62	C	Install sheet metal drip edge	Issue 1.1	30	LF
63	C	Install sheet metal deck to wall	Issue 1.1	6	LF
64	C	Install sheet metal sill pan at windows and entry doors	Issue 1.1	10	LF
65	D	Remove and dispose of existing sheet metal flashing at deck, install new sheet metal flashing at deck	Issue 1.3		
66	D	Install new sheet metal drip edge at deck		30	LF
67	D	Install new deck to wall flashing		86	LF
68	D	Fabricate and install new sheet metal sill pan at window and door		15	LF
69	D	Fabricate and install new sheet metal sill pan at sliding glass doors		20	LF
70	E	Install sheet metal sill pan at windows	Issue 2.5 3 Locations 6 lf ea	18	LF
71	F	Install sheet metal sill pan at windows	Issue 2.6 3 locations, 10 lf ea	30	LF
72	G	Install sheet metal sill pan at windows	Issue 2.7 15 LF	15	LF
73	H	Install sheet metal sill pan at windows	Issue 2.8 15 LF	15	LF
74					
75	B2050	Joint Sealants			
76	A	Install sealant and backer rod at stucco j-mold to window transitions.			
77					
78	B2060	Exterior Coatings (Paint)			
79	A	Paint exterior wall plane corner to corner			
80	1	1st floor front elevation		1808	
81	2	1st floor right elevation		966	
82	3	2nd floor front and right elevation		1871	
83	4	2nd floor deck wall		500	
84	5	Roof elevation		142	
85	6	1st floor rear and left elevations		1795	
86	7	2nd floor rear and left elevations		1890	
87	8	Total		8972	
88					
89	B3000	Roofs			
90	B3002	Low Slope Roofing			

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Quantity Take Off

#	Item	Description	Notes/Ref.	QTY	Unit
91	A	Coordinate with window removal and reset in Issue 2.7. Power wash roof in area of repair. Install roofing / waterproofing membrane over top of curb and lapped to existing membrane.			
92					
93	B3004	Roof Flashing & Trim			
94					
95	B3007	Waterproof Decks (Horizontal Waterproofing)			
96	A	At west elevation deck remove and replace waterproofing		620	SF
97	B	At south end entrance, remove and dispose of tile, after concrete repairs, install waterproofing at landing.		183	SF
98					
99	C3000	Interior Finishes			
100	C3010	Gypsum Wallboard & Interior Plaster			
101	A	Replace drywall around windows where removed. Texture to match existing.			
102	1	1st Floor		1164	SF
103	2	2nd Floor		1353	SF
104	3	Total		2517	SF
105					
106	C3011	Interior Paint			
107	A	Prime new gypsum wall board, paint walls rooms where window repairs performed.			
108	1	Prime new gypsum wall board		2517	SF
109	2	Paint walls, 1st floor		3970	SF
110	3	Paint walls, 2nd floor		7141	SF
111	4	Paint walls total		11111	SF
112					
113	C3012	Interior Wall Covering & Finishes			
114	A	Install new wall paper at walls			
115	1	1st floor		472	SF
116	2	2nd floor		655	SF
117	3	Total		1127	SF
118					
119	C3023	Floor Finishes: Resilient			
120	A	Replace resilient flooring		1326	SF
121	1	1st floor		813	SF
122	2	2nd floor		513	SF
123					
124	B	Cove Base			
125	1	1st floor		193	LF
126	2	2nd floor		108	LF
127	3	Total		301	LF
128					
129	C3024	Floor Finishes: Carpet			
130	A	Replace damaged carpet	room 205	128	SF
131					
132	D5000	Electrical			
133	A	Remove and reset interior electrical components for interior repairs.			
134	B	Remove and reset exterior electrical components for repairs.			
135					
136	F1000	Special Construction			
137	A	Water damage and microbial growth remediation			
138					
139	G2030	Pedestrian Paving			
140	A	Remove and dispose of tile at South Elevation entrance		183	SF
141					
142	G2050	Landscaping			
143	A	Protect landscaping, remove and store as necessary, Replace damaged landscaping.			
144					

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Calls, Sub-Bids, Materials

#	1	2	3
Date:	10/20/2014	10/20/2014	10/20/2014
Time:	1050	1345	1240
Sub-Contractor:	Allrite Scaffolding	South Bay Scaffolding	A-1 Fencing
Material Supplier:			
Contact:	Rich Richardson	Mike Martinez	Maurilio
Street Address:	2328 249th St, Lomita, CA 90717	15209 S Avalon Blvd, Gardena, CA 90248	Wilmington, CA 90744
Phone #:	(310) 539-5348 / (m) 310-6	(310) 965-9565	(310) 549-1121
Fax #:			
Email:			
Material:	Scaffolding 350 lf,	Scaffolding 350 lf,	Fencing 200lf
Description	200 lf 3 tier, 150 lf 4 tier, 50 lf pedestrian protection	200 lf 3 tier, 150 lf 4 tier, 50 lf pedestrian protection	200lf 6ft panel 10lf gate wind screen
Bidding Sections:	B 2011	B 2011	
Bidding Section #'s:			
Bid Amount:		8500.00 + 85.00 /day after 60 + 350 overhead protection	1722.00 + 150.00 / mth after 1st 6 mth 1918.00 12mth 2153.00
With Tax and Delivery:		12925	2224.2
With Waste:			
Per Unit (SF, LF, CY, etc.):		$ 64.63	$ 11.12
Inclusions:			

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Calls, Sub-Bids, Materials

#	4	5	6
Date:	10/20/2014	10/20/2014	10/20/2014
Time:	1020	1020	1020
Sub-Contractor:			
Material Supplier:	Smalley & Company	Smalley & Company	Smalley & Company
Contact:	Liz	Liz	Liz
Street Address:	2358 E Walnut Ave, Fullerton Ca 92831	2358 E Walnut Ave, Fullerton Ca 92831	2358 E Walnut Ave, Fullerton Ca 92831
Phone #:	(714) 441-4100	(714) 441-4100	(714) 441-4100
Fax #:			
Email:			
Material:	Dow Corning 795 Sealant	Dow Corning 795 Sealant	Dow Corning 795 Sealant
Description	sausage -20oz	2 gal bucket 2-3 week lead time	4.5 gal bucket only available Black, Natural Stone and White; 2-3 week lead time
Bidding Sections:	B 2020 B 2050	B 2020 B 2050	B 2020 B 2050
Bidding Section #'s:			
Bid Amount:	11.18	118.48	260.30
With Tax and Delivery:	12.298	130.328	286.33
With Waste:			
Per Unit (SF, LF, CY, etc.):			
Inclusions:			

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Window Schedule

#	Wdw Id	Elevation	Room	Description	Note	Wdw Count	Panel QTY	Door Count	Panel QTY	FSI Test	RWF Test	FSI Result	ECL Result	PFCS Test	PFCS Repair
1	1.01	Front	115	Office		1	1		1					1	
2	1.02	Front	115	Office		1	1		1						
3	1.03	Front	114	Entry	2 door panels, transom and side lite	1	2	1	2						
4	1.04	Front	113	Staff Lounge		1	1							1	
5	1.05	Front	110	Kitchen		1	2							1	
6	1.06	Front	109	Classroom	panel qty unclear	1	1							1	
7	1.07	Front	108		front at right	1	2	1	1						
8	1.08	Right	108			1	1			1		F	F	1	1
9	1.09	Right	107			1	1							1	
10	1.10	Right	104	Office		1	1							1	
11	1.11	Right	103	Office		1	2							1	
12	1.12	Right	100	Entry	2 door panels, 5 wdw panels	1	5	2	2					1	1
13	1.13	Rear	100	Entry		1	6							1	
14	1.14	Rear	100	Entry		1	6			Deck	Deck	P	P		
15	1.15	Rear	100	Entry		1	6							1	
16	1.16	Rear	119	Senior Day Care		1	6							1	
17	1.17	Rear	119	Senior Day Care		1	6							1	
18	1.18	Rear	119	Senior Day Care		1	6							1	
19	1.19	Left	118	Storage		1	1							1	
20	1.20	Left	119	Senior Day Care	sgd			1	2						
21	1.21	Left	119	Senior Day Care	swing door and window	1	3	1	1						
22	1.22	Left	116	Directors Office		1	1							1	
23	2.01	Front	214	Cooridor	lower lite next to steel	1	1							1	
24	2.02	Front	214	Cooridor	upper lite next to steel	1	1								
25	2.03	Front	214	Cooridor	upper lites	1	3							1	
26	2.04	Front	214	Cooridor	lower lites	1	3								
27	2.05	Front	200	Lobby	at deck	1	7	1	1	Deck	F	F		1	1
28	2.06	Front	211	Lounge / Conference	sgd at deck			1	4						1
29	2.07	Front	210	Lounge	sgd at deck			1	3						1
30	2.08	Right	211	Lounge / Conference		1	1			1		P	P		
31	2.09	Right	211	Lounge / Conference		1	1							1	
32	2.10	Right	206	Office	butt glass	1	12				F			1	1
33	2.11	Right	205	Snack Room	butt glass	1	12			1	F	F	P	1	1
34	2.12	Right	204	Office	butt glass	1	12				F			1	1
35	2.13	Rear	204	Office		1	6							1	
36	2.14	Rear	203	Office		1	6			1		P	P		
37	2.15	Rear	202	Safe Room		1	6			1		P	P		
38	2.16	Rear	224	Classroom		1	6			1		P	P		
39	2.17	Rear	216	Chapel		1	4			1		P	P		
40	2.18	Rear	216	Chapel		1	6							1	

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Window Schedule

#	Wdw Id	Elevation	Room	Description	Note	Wdw Count	Panel QTY	Door Count	Panel QTY	FSI Test	RWF Test	FSI Result	ECL Result	PFCS Test	PFCS Repair
41	2.19	Rear	216	Chapel		1	4							1	
42	2.20	Left	216	Chapel		1	12			1		P	F	1	1
43	2.21	Left	220	Band Storage		1	1							1	
44	3.01	Roof	200	Lobby	roof window	1	12			1	F	P	F	1	1
45															
				Total		41	177	9	18	9	*			29	10
				* Incomplete data for Roofing and Waterproofing Forensics Tests											
				Additional testing performed by Fenestration Testing Labs, PFCS has no data on this testing											

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Room Schedule

#	Room	Description	Floor	Walls	Not inspected	Affected by work
1	100	Entry	Vinyl	Wallpaper		Y
2	101	Lobby	Vinyl			Y
3	102	Cooridor			X	N
4	103	Office		Paint		Y
5	104	Office		Paint		Y
6	105	Secretary		Paint		N
7	106	Storage			X	N
8	107			Paint	X	Y
9	108			Paint	X	Y
10	109	Classroom			x	N
11	110	Kitchen		Paint		Y
12	111	Pantry			X	N
13	112	Utility			X	N
14	113	Staff Lounge		Paint	X	Y
15	114	Entry		Paint		Y
16	115	Office		Paint		Y
17	116	Directors Office		Paint	X	Y
18	117	Storage			X	N
19	118	Storage			X	N
20	119	Senior Day Care	VCT	Paint		Y
21	120					
22	121	Mens toilet				N
23	122	Womens toilet			X	N
24	123	Mens toilet			X	N
25	124	Womens toilet			X	N
26	125	Shower			X	N
27	126	Stairwell			X	N
28	200	Lobby	Vinyl	8' wall paper, 2' paint		Y
29	201	Stairwell			X	N
30	202	Safe Room	Carpet	Paint		Y
31	203	Office	Carpet	Paint		Y
32	204	Office	Carpet	Paint		Y
33	205	Snack Room	Carpet	Paint		Y
34	206	Office	Carpet	Paint	X	Y
35	207	Office	Carpet			N
36	208	Storage			X	N
37	209	Skipped number				
38	210	Lounge	Carpet	Paint		Y
39	211	Lounge / Conference	Carpet	Paint	X	
40	212	Mens toilet			X	N
41	213	Womens toilet			X	N
42	214	Cooridor	Vinyl	Paint		Y
43	215	Vestibule			X	N
44	216	Chapel	Carpet	3' wainscot, 10' paint		Y
45	217	Multi-purpose room			X	N
46	218	Nursery			X	N

For mediation purposes only.
Protected by all applicable evidence codes.

Room Schedule

#	Room	Description	Floor	Walls	Not inspected	Affected by work
47	219	Janitor			X	N
48	220	Band Storage	Carpet	Paint		Y
49	221	Storage			X	N
50	222				X	N
51	223	Storage			X	N
52	224	Classroom		Paint	X	Y
53						
54						
55						
56						
57						
58						
59						

9. CONCEPTUAL & PRELIMINARY (PFCS LEVELS 2-3)

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9. CONCEPTUAL & PRELIMINARY

Level 2 & Level 3: 10 Steps

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Level 5 Estimating

5 Levels - 10 Steps

3/10/2009

STEP 1
STEP 2
STEP 3
STEP 4
STEP 5
STEP 6
STEP 7
STEP 8
STEP 9
STEP 10

Level 2

Level 3

Lin	Level 1 Order of Magnitude	Level 2 Conceptual	Level 3 Preliminary	Level 4 Detailed	Level 5 Bid / Construction / Trial
1	mmary Sheet Only	Add capital letters (or	Conform with the WBS	See PFCS Samples for deeper and deeper levels. Conform to rules of WBS.	Final Pass for clarity and ease of making references and following all of the component parts.
2	Level 1 Work Breakdown ructure (WBS): 1 ragraph to 1 page. There only basic quantities (no l QTO) in approximate ures			Complete, detailed QTO.	Final Pass. Check QTO on key items.
3	rtle or no breakdown of or / time in this step			Use Walker's Labor Rates	Final Pass
4	guesstimate. Little QTO, antities only - not cost of terials. Assembly level imates at the most			Calls, Bids, Alternatives refined	Final Pass
5	AG. Often none			Calls, Books, Bids	Final Pass
6	it prices, WAG, Use oks only on BIG #'s			Lots of Calls, Maybe send info, Maybe Bids	Final Pass
7	of Direct Cost			Broken Down	Same as L4
8	of Direct Cost	Reconsider % or Amount		Possibly Broken Down	Same as L4
9	of Direct Cost	Reconsider % or Amount	Reconsider % or Amount	Reconsider % or Amount	Reconsider % or Amount
10	AG	SWAG	More Support	More Support	Calls Bids
11	+ Hours	2-24 Hours	16-100 Hours	50-200 Hours	100+ Hours



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9. CONCEPTUAL & PRELIMINARY

Level 2: 10 Steps

1. **Format:** Add capital letters (or numbers if L1 are letters) with 2 to 15 items under each of the main categories
2. **Scope:** Add details with 2-10 categories each with letters and CSI codes. Basic QTO on main items (SF, FA, LF, etc.) Usually not calculated units like Cubic Yards (CY)
3. **Time (Labor):** Rough Estimate, Typical crews, Round numbers, slightly over estimating. No calls
4. **Materials:** QTO, Rough Estimate, Slightly over estimating. Books only for big no.'s, NO calls unless faster than book. Make links to the Calls, Subs, Bids sheet, put estimates for the material in the linked cell; when it's is updated, the new amount will automatically update
5. **Equipment:** Rough Estimate. No calls
6. **Independent Subcontractors:** Books, NO calls
7. **General Conditions:** Reconsider % or Amount
8. **Internal (Overhead) Costs:** Reconsider % or Amount
9. **Profit:** Reconsider % or Amount
10. **Non-Construction (Other) Costs:** SWAG



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9. CONCEPTUAL & PRELIMINARY

Level 3: 10 Steps

1. **Format:** Conform with the WBS rules: Main Category, then capital letters or numbers, then alternate with each new level.
2. **Scope:** Level 3 WBS with letters, numbers, and CSI codes. More detailed QTO.
3. **Time (Labor):** Productivity rates, Use Walker's book on big numbers.
4. **Materials:** Calls, Books, Maybe Alternatives
5. **Equipment:** Calls, Books
6. **Independent Subcontractors:** Some Calls
7. **General Conditions:** Reconsider % or Amount
8. **Internal (Overhead) Costs:** Reconsider % or Amount
9. **Profit:** Reconsider % or Amount
10. **Non-Construction (Other) Costs:** More support



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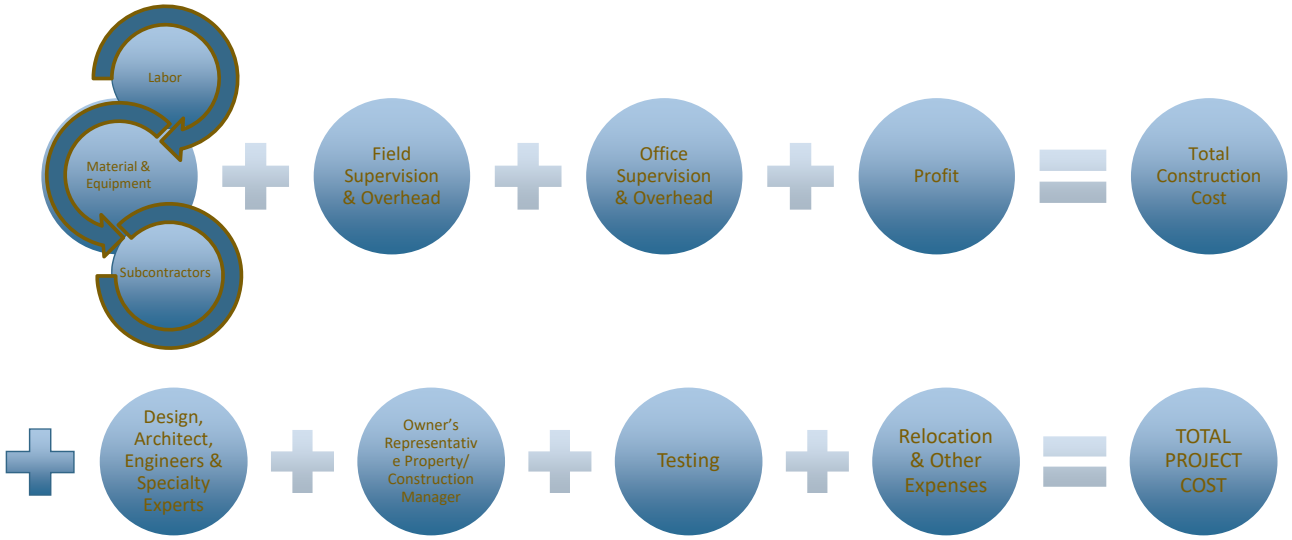
9. CONCEPTUAL & PRELIMINARY

Level 2+ Estimating

CONSTRUCTION COST FLOW CHART



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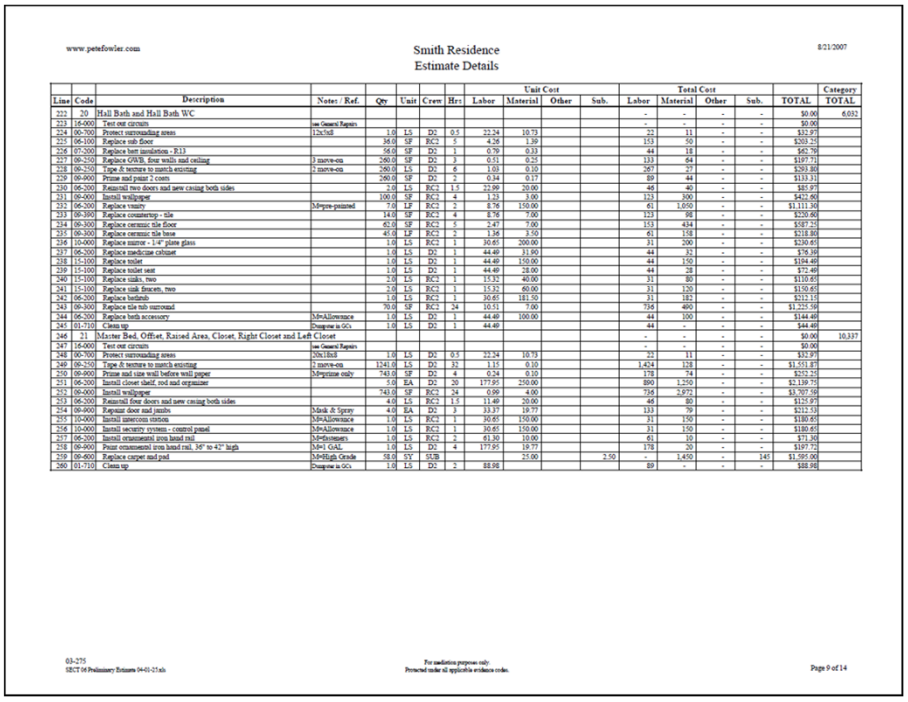
Using the Estimate Components

1. Title Page
2. Summary
3. Estimate Details
4. Unit Matrix / Room Schedule
5. Quantity Take Off Documentation
6. Labor and Crew Rates
7. Material Prices and Equipment Costs
8. Subcontractors Calls and Costs
9. General Conditions
10. Other Project Costs, including design, engineering, project management
11. Relocation

9. CONCEPTUAL & PRELIMINARY

Estimate Details



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Smith Residence
Estimate Details

8/21/2007

Line	Code	Description	Notes / Ref.	Qty	Unit	Crew	Hrs	Unit Cost Labor	Unit Cost Material	Unit Cost Other	Unit Cost Sub.	Total Cost Labor	Total Cost Material	Total Cost Other	Total Cost Sub.	TOTAL	Category TOTAL
222	20	Hall Bath and Hall Bath WC										-	-	-	-	$0.00	6,032
223	16-000	Test out circuits	see General Repairs									-	-	-	-	$0.00	
224	00-700	Protect surrounding areas	12x7x8	1.0	LS	D2	0.5	22.24	10.73			22	11	-	-	$32.97	
225	06-100	Replace sub floor		36.0	SF	RC2	5	4.26	1.39			153	50	-	-	$203.25	
226	07-200	Replace batt insulation - R13		56.0	SF	D2	1	0.79	0.33			44	18	-	-	$62.79	
227	09-250	Replace GWB, four walls and ceiling	3 move-on	260.0	SF	D2	3	0.51	0.25			133	64	-	-	$197.72	
228	09-250	Tape & texture to match existing	2 move-on	260.0	LS	D2	6	1.03	0.10			267	27	-	-	$293.80	
229	09-900	Prime and paint 2 coats		260.0	SF	D2	2	0.34	0.17			89	44	-	-	$133.31	
230	06-200	Reinstall two doors and new casing both sides		2.0	LS	RC2	1.5	22.99	20.00			46	40	-	-	$85.97	
231	09-000	Install wallpaper		100.0	SF	RC2	4	1.23	3.00			123	300	-	-	$422.60	
232	06-200	Replace vanity	M=pre-painted	7.0	LF	RC2	2	8.76	150.00			61	1,050	-	-	$1,111.30	
233	09-300	Replace countertop - tile		14.0	SF	RC2	4	8.76	7.00			123	98	-	-	$220.80	
234	09-300	Replace ceramic tile floor		62.0	SF	RC2	5	2.47	7.00			153	434	-	-	$587.23	
235	09-300	Replace ceramic tile base		45.0	LF	RC2	2	1.36	2.50			61	113	-	-	$218.80	
236	10-000	Replace mirror - 1/4" plate glass		1.0	LS	RC2	1	30.65	200.00			31	200	-	-	$230.65	
237	06-200	Replace medicine cabinet		1.0	LS	D2	1	44.49	31.90			44	32	-	-	$76.39	
238	15-100	Replace toilet		1.0	LS	D2	1	44.49	150.00			44	150	-	-	$194.49	
239	15-100	Replace toilet seat		1.0	LS	D2	1	44.49	28.00			44	28	-	-	$72.49	
240	15-100	Replace sinks, two		2.0	LS	RC2	1	15.32	40.00			31	80	-	-	$110.65	
241	15-100	Replace sink fixtures, two		2.0	LS	RC2	1	15.32	60.00			31	120	-	-	$150.65	
242	06-200	Replace bathtub		1.0	LS	RC2	1	30.65	181.50			31	182	-	-	$212.15	
243	09-300	Replace tile tub surround		70.0	SF	RC2	24	10.51	7.00			736	490	-	-	$1,225.59	
244	06-200	Replace bath accessory	M=Allowance	1.0	LS	D2	1	44.49	100.00			44	100	-	-	$144.49	
245	01-710	Clean up	Dumpster in GCs	1.0	LS	D2	1	44.49				44	-	-	-	$44.49	
246	21	Master Bed, Offset, Raised Area, Closet, Right Closet and Left Closet										-	-	-	-	$0.00	10,337
247	16-000	Test out circuits	see General Repairs									-	-	-	-	$0.00	
248	00-700	Protect surrounding areas	20ft/18x8	1.0	LS	D2	0.5	22.24	10.73			22	11	-	-	$32.97	
249	09-250	Tape & texture to match existing	2 move-on	1241.0	LS	D2	32	1.15	0.10			1,424	124	-	-	$1,551.87	
250	09-900	Prime and size wall before wall paper	M=prime only	743.0	SF	D2	4	0.24	0.10			178	74	-	-	$252.22	
251	06-200	Install closet shelf, rod and organizer		5.0	EA	D2	20	177.95	250.00			890	1,250	-	-	$2,139.75	
252	09-000	Install wallpaper		743.0	SF	RC2	24	0.99	4.00			736	2,972	-	-	$3,707.58	
253	06-200	Reinstall four doors and new casing both sides		4.0	LS	RC2	1.5	11.49	20.00			46	80	-	-	$125.97	
254	09-900	Repair door and jambs	Mask & Spray	4.0	EA	D2	3	33.37	19.77			133	79	-	-	$212.53	
255	10-000	Install intercom station	M=Allowance	1.0	LS	RC2	1	30.65	150.00			31	150	-	-	$180.65	
256	10-000	Install security system - control panel	M=Allowance	1.0	LS	RC2	1	30.65	150.00			31	150	-	-	$180.65	
257	06-200	Install ornamental iron hand rail	M=Steinners	1.0	LS	RC2	2	61.30	10.00			61	10	-	-	$71.30	
258	09-900	Paint ornamental iron hand rail, 36" to 42" high	M=1 GAL	1.0	LS	D2	4	177.95	19.77			178	20	-	-	$197.72	
259	09-400	Replace carpet and pad	M=High Grade	58.0	SY	SUB			25.00		2.50	-	1,450	-	145	$1,595.00	
260	01-710	Clean up	Dumpster in GCs	1.0	LS	D2	2	88.98				89	-	-	-	$88.98	

03-275
SECT 06 Preliminary Estimate 04-01-25.xls

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9. CONCEPTUAL & PRELIMINARY

Estimate Details

1. Line
2. Code
3. Description
4. Notes / References
5. Quantity
6. Unit
7. Crew
8. Hours
9. Unit Cost
   A. Labor
   B. Material
   C. Other
   D. Subcontractors
10. Total Cost
    A. Labor
    B. Materials
    C. Other
    D. Subcontractors
11. Line Total
12. Category Total

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9. CONCEPTUAL & PRELIMINARY

Quantity Take Off (QTO)

Take off, sometimes spelled as "take-off" or "takeoff," is a part of the cost estimating process in the construction industry. Estimators use construction blueprints, either manually or electronically, and start "taking off" quantities of items they will need from those blueprints in order to prepare part of the estimate. Examples of possible take offs include the number of light fixtures needed in the building plan or the amount of wiring needed for the electrical work.

Take off happens in different ways: Some do manual takeoffs from field sketches, some do on-screen take offs using estimating software programs, and some use digitizers, which are electronic measuring devices that work on hard copy plans.

Source - http://whatis.techtarget.com



Quantity Take Off (QTO)

QUANTITIES COMMONLY INCLUDE:

- SF: Square Feet
- LF: Lineal Feet
- CY: Cubic Yard
- CF: Cubic Feet
- Acre: A unit of land area equal to 4,840 square yards
- SY: Square Yard
- GAL: Gallons
- LBS: Pounds
- Ton: 2,000 pounds
- B.F.M.: Thousand Board Feet

9. CONCEPTUAL & PRELIMINARY

Case Study

PFCS' Simplified Case Study: Otto's Outhouse

Estimate the COST of this project!



Case Study

NEW HOTEL CONSTRUCTION



PROJECT SUMMARY/ DESCRIPTION

This Estimate is to provide a more detailed than conceptual estimate for site work, Parking Garage, Guest Room Tower, Entertainment and Meeting Areas constituting a complete bid for budgetary purposes.

Prepared by: Ron Svarc, CPE

ISSUE SUMMARY	Direct Cost	Burdened Cost
1.0 Site Work	$ 4,987,852	$ 6,885,331
2.0 Parking Garage	32,589,084	44,983,972
3.0 Podium Area	34,584,982	47,741,100
4.0 Guestroom Area	83,149,852	114,780,056
5.0 Pool Deck Area	5,405,293	7,461,466
TOTAL	$ 160,717,063	$ 221,853,834
COST PER SQUARE FOOT		$ 325

Ref	Description	Unit	Unit Cost	Total Quantity	Total Cost
1.0	**Site Work**				
	Demolition, clear and grubbing	LS	1.00	0	0
	Abatement	CF	65.00	0	0
	Excavation and Backfill	CuYd	15.00	0	0
	Removal of Contaminated soil	CuYd	65.00	0	0
	Shoring	SF	40.00	0	0
	Methane	SF	4.82	0	0
	Dewatering	SF	3.00	0	0
	Site Concrete	SF	8.00	59,857	478,856.00
	Site Utilities	LS	6.34	218,000	1,382,120.00
	Landscaping and irrigation	SF	25.00	58,000	1,450,000.00
	CIP Concrete	SF	26.00	3,360	87,360.00
	Rebar	LBs	1.03	34,136	35,160.08
	Masonry	SF	26	12,898	335,348.00
	Waterproofing	SF	6.35	20,830	132,270.50
	Plaster	SF	18.00	5,288	95,184.00
	Pool 20' X 50'	LS	1.00	145,000	145,000.00
	Plumbing - Drains, Copper irrigation pipe, and Miscellaneous	SF	16.26	34,606.00	562,693.56
	~~Temp Const. - Street use Permits, Barricades, Walkways, Fencing~~	~~LS~~	~~1.00~~	~~283,860~~	~~283,860~~
	Sub Total of Direct Costs				**160,717,063**

Ref	Description	Quantity	Cost
	General Conditions	12%	19,286,048
	Contractors Fee	4%	6,428,683
	Subtotal		**186,431,793**
	Construction Contingency	7%	13,050,226
	Overhead and Administration	8%	14,914,543
	Permits & Insurance	4%	7,457,272
	Construction Subtotal*		**221,853,834**
	Cost per SF		**325**

[redacted]

RPS #14-032 May. 07, 2014

Detailed Conceptual Budget Estimate for [redacted] Hotel

PROJECT SUMMARY/ DESCRIPTION

This Estimate is to provide a more detailed than conceptual estimate for site work, Parking Garage, Guest Room Tower, Entertainment and Meeting Areas constituting a complete bid for budgetary purposes.

Prepared by: Ron Svarc, CPE

ISSUE SUMMARY

		Direct Cost	Burdened Cost
1.0	Site Work	$ 4,987,852	$ 6,885,231
2.0	Parking Garage	32,589,084	44,985,972
3.0	Podoum Area	34,584,982	47,741,109
4.0	Guestroom Area	83,149,852	114,780,056
5.0	Pool Deck Area	5,405,293	7,461,466
	TOTAL	**$ 160,717,063**	**$ 221,853,834**
	COST PER SQUARE FOOT		**$ 325**

Ref	Description	Unit	Unit Cost	Total Quantity	Total Cost
1.0	**Site Work**				
	Demolition, clear and grubbing	LS	1.00	0	0
	Abatement	CF	65.00	0	0
	Excavation and Backfill	CuYd	15.00	0	0
	Removal of Contaminated soil	CuYd	65.00	0	0
	Shoring	SF	40.00	0	0
	Methane	SF	4.82	0	0
	Dewatering	SF	3.00	0	0
	Site Concrete	SF	8.00	59,857	478,856.00
	Site Utilities	LS	6.34	218,000	1,382,120.00
	Landscaping and irrigation	SF	25.00	58,000	1,450,000.00
	CIP Concrete	SF	26.00	3,360	87,360.00
	Rebar	LBs	1.03	34,136	35,160.08
	Masonry	SF	26	12,898	335,348.00
	Waterproofing	SF	6.35	20,830	132,270.50
	Plaster	SF	18.00	5,288	95,184.00
	Pool 20' X 50'	LS	1.00	145,000	145,000.00
	Plumbing - Drains, Copper irrigation pipe, and Miscellaneous	SF	16.26	34,606.00	562,693.56
	Temp Const. - Street use Permits, Barracades, Walkways, Fencing	LS	1.00	283,860	283,860
1.0	**Subtotal of Site Work**				**4,987,852**
	Site Work Cost per SF of project				**88**
2.0	**Parking Garage**				
	CIP Concrete - 700 stalls at $19,731	EA	19,731.00	700	13,811,700
	Concrete - foundation 4' thk. Including rebar	CY	675.00	18,564	12,530,700
	Striping and Bumpers	EA	150.00	700	105,000
	Fences and gates	LF	25.00	3,825.00	$ 95,625.00
	Shotcrete including backforming	SF	48.00	20,400	979,200
	Masonry	SF	26.00	21,000	546,000
	Expansion Joints	LF	135.00	1,800	243,000
	Doors, Frames, Hardware	EA	2135.00	24	51,240
	Fin. Carpentry - Installation of HM doors	EA	296.00	24	7,104
	Sheet Metal - Allowance	LS	1.00	40,000	40,000
	Caulking and Sealants - Allowance	EA	1.00	30,000	30,000
	Overhead doors - loading and hotel entry	EA	14,000.00	3	42,000
	Plaster - Scaffolding and plaster	SF	12.00	146,250	1,755,000
	Drywall and framing	SF	15.43	5,163	79,665
	Painting	SF	1.02	146,250	149,175
	Misc. Specialties - Fire Extinquishers	EA	225.00	76	17,100
	Signage	LS	1.00	20,000	20,000
	Fire Sprinkler	SF	4.25	146,250	621,563
	HVAC	SF	2.15	146,250	314,438
	Electrical - Transf., fixtures, distribution, devices, fire/life safety, panels,	SF	5.23	146,250	764,888
	Safety and Protection	LS	1.00	80,000	80,000
	Survey and layout	SF	0.75	146,250	109,688
	Clean-up	LS	1.00	40,000	40,000
	Security watchman	MO	6500.00	24	156,000
2.0	**Subtotal of Parking Garage**				**32,589,084**
	Parking Garage cost per SF				**223**

3.0 Podium Area

[redacted]

RPS #14-032 May. 07, 2014

Detailed Conceptual Estimate for [redacted] Hotel

Ref	Description	Unit	Unit Cost	Total Quantity	Total Cost
	CIP Concrete - includes CIP, Columns, Deck and depressions	SF	26	193,220	5,023,720
	Rebar - at Podium deck, columns, CMU, Misc. Steel and hoisting	LBs	1.02	347,747	354,702
	Masonry	SF	20	4,133	82,660
	Misc. Metals - stairs, awning supports, façade design	LS	1	210,000	210,000
	Finish Carpentry - HM Door/frame installation	EA	298	35	10,430
	Finish Carpentry - millwork including cabinets, closets, desks, counters and tops	LS	1	225000	225,000
	Insulation - Thermal and rigid	SF	1	193,220	193,220
	Sheet metal	SF	1.25	193,220	241,525
	Stone and Fabricated exterior façade	SF	48.75	20,400	994,500
	Wood wall paneling	SF	20.00	10,225	204,500
	Fabric padded wall paneling	SF	13.25	3,500	46,375
	Fabric padded moveable room partitions	SF	45.00	4,332	194,940
	Wall coverings	SF	5.50	7,350	40,425
	Flooring	SF	6.15	193,220	1,188,303
	Steel stairs and landings - 4	Flr	14,675	20	293,500
	Steel stairs and landings - 2	Flr	14,675	4	58,700
	Showcase stairs and landings at ballrooms including SS and glass Handrails - 2	Flr	43,040	6	258,240
	Caulking and Sealants	LS	1.65	16,008	26,413
	HM Doors and Frames- Openings	EA	585	35	20,475
	Finish Hardware - Locksets and cylinders	EA	765	35	26,775
	Glass and Glazing - Windows, storefront and insulated glazing	SF	75.00	20,400	1,530,000
	Plaster - including scaffold, plaster and façade	SF	18.39	24,003	441,415
	Gypboard and framing	SF	15.43	193,220	2,981,385
	Painting - including misc.	SF	2.00	193,220	386,440
	Miscellaneous Specialties - Fire ext. Cabts., awnings, etc.	LS	1.00	193,220	193,220
	Kitchen Equipment - 3 each	EA	344,100	3	1,032,300
	Restaurant/Bar	SF	175	14,475	2,533,125
	Signage	LS	1	12,000	12,000
	Fire Sprinklers	SF	4.75	193,220	917,795
	Plumbing - including grease intercepters,gas rough-in and seismic shut-off valves	SF	23.35	193,220	4,511,687
	HVAC	SF	18.76	193,220	3,624,807
	Electrical - including fire life safety, telephone/data/entry access rough-in security system and temporary power	SF	32.75	193,220	6,327,955
	Safety and Protection	LS	1	200,000	200,000
	Survey and Layout	LS	1	17,500	17,500
	Security - Watchman - 3 men	MO	9,275	18	166,950
	Clean-up	LS	1	14,000	14,000
3.0	**Subtotal of Podium Area**				**34,584,982**
	Podium Area SF cost				**179**
4.0	**Guest Room Area**				
	Concrete Fills - Lt. weight, sound mat hard surface above podium and hardrock concrete fill.	SF	2.75	395,970	1,088,918
	Balcony decks	SF	4.75	5,280	25,080
	Balcony railings - fully tempered laminated glass railing with stainless steel support, hardware and fittings	LF	225.00	2,024	455,400
	Misc. Metals - single rails, guardrails, screens, articulation, ladders, TS & guiderail supports at elevators, steel stairs, TS frame, canopy support and miscellaneous steel.	SF	5.25	395,970	2,078,843
	Expansion Joints	LF	125	1,944	243,000
	Rough Carpentry - includes anchor bolts and shoring of podium for access	SF	30	395,937	11,878,110
	Finish Carpentry - includes shelf and poles, wood base, shelving	EA	1500	500	750,000
	Countertops	SF	22	20,000	440,000
	Cabinets	EA	2300	500	1,150,000
	Waterproofing - at balconys and bath room floors	SF	5.15	74,943	385,956
	Insulation - includes thermal and sound insulation	SF	5.25	649,074	3,407,639
	Sheet Metal	SF	1.75	395,970	692,948
	Caulking and Sealant	LS	1.75	48,000	84,000
	Doors and Frames - includes entrys, wood and HM doors and frames, doors with louvers, and slam doors at elevators	EA	558	1,594	889,452
	Finish Hardware	EA	724	1,594	1,154,056

	(Guest Room Area Continued)				
	Glass and Glazing - includes sliding glass doors, fully tempered insulated glass units, with Low-E, Low-r performance coating with operable sliding doors at guest room enclosures. (88)	SF	75	38,168	2,862,600
	Public finishes - includes decorating allowance, allowance for additional plumbing fixtures, interior glazings, and partitions	LS	1	930,000	930,000
	Plaster- includes scaffold, smooth finish, exterior soffit, GFRG columns and square and radius columns.	SF	18.50	195,347	3,613,920
	Gypsum Board - includes walls, ceilings, shafts and draftstops	SF	15.25	1,201,269	18,319,352
	Flooring	SF	4.57	328,480	1,501,154
	Painting	SF	1.02	1,104,526	1,126,617
	Miscellaneous Specialties - includes fire Extinguishers and cabn'ts, toilet accessories, medicine cabinets, Janitor closet accessories, HNDP shower seats, grab bars, Mirrors and mailboxes.	LS	1	300,000	300,000
	Signage	SLS	1	22,065	22,065
	Appliances	EA	2400	500	1,200,000
	Trash Chutes	EA	18575	6	111,450
	Window Coverings	SF	12	8,642	103,704
	Steel stairs, railings and landings - 2	Flr	14,675	50	733,750
	Elevators - Hotel Guests	EA	230,000	7	1,610,000
	Elevators -Staff	EA	130,000	6	780,000
	Fire Sprinklers	SF	4.95	328,480	1,625,976
	Plumbing - includes fixtures, showers, sinks, HW Heaters, dishwasher lines, rough-in for washer, water for refrig. Ice, garbage disposal, gas line, seismic shut-offs and roof drains.	EA	15,800	500	7,900,000
	HVAC	EA	8,575	500	4,287,500
	Electrical	SF	32.26	328,480	10,596,765
	Safety and Protection	LS	1	120,700	120,700
	Survey and Layout	LS	1	120,000	120,000
	Final Clean	EA	700	500	350,000
	Man-Lift	LS	1	54,900	54,900
	Security - Watchman	MO	6,500	24	156,000
4.0	**Subtotal of Guest Room Area**				**83,149,852**
	Guest Room Area Cost per SF				**253**

5.0 Pool Deck/Roof Area

Ref	Description	Um	Unit Cost	Total Quantity	Total Cost
	CIP Concrete - includes CIP, Pool Deck dropheads and depressions	SF	26.0	14,700	382,200
	Rebar - at Pool deck, columns, CMU, Misc. Steel and hoisting	LBs	1.02	120,280	122,686
	Masonry	SF	20	4,133	82,660
	Misc. Metals - stairs, awning supports, façade design	LS	2	95,000	190,000
	Finish Carpentry - HM Door/frame installation	EA	298	22	6,556
	Roofing	SF	12	7,740	92,880
	Insulation - Thermal and rigid	SF	0.50	14,740	7,370
	Sheet metal	SF	1.25	14,740	18,425
	Caulking and Sealants	LS	1.65	16,008	26,413
	HM Doors and Frames- Openings	EA	585	35	20,475
	Finish Hardware - Locksets and cylinders	EA	765	35	26,775
	Glass and Glazing - Windows, storefront and glazing	SF	75	20,400	1,530,000
	Plaster - including scaffold, plaster and façade	SF	18.39	24,003	441,415
	Gypboard	SF	11.70	21,257	248,707
	Painting - including misc.	SF	2	19,982	39,964
	Swimming Pool - Adult	SF	238	1,600	380,800
	Kitchen Equipment - 1 each	EA	344,100	1	344,100
	Misc. Specialties - Fire extinguisher Cabts., awning, etc.	LS	1.00	61,250	61,250
	Signage	LS	1.00	7,500	7,500
	Fire Sprinklers	SF	5.00	14,700	73,500
	Plumbing - including grease intercepters,gas rough-in and seismic shut-off valves	SF	16.86	14,700	247,842
	HVAC	SF	26.50	14,700	389,550
	Electrical - including fire life safety, telephone/data/entry access rough-in security system and temporary power	SF	31.75	14,700	- 466,725
	Safety and Protection	LS	1	20,000	20,000
	Survey and Layout	LS	1	7,500	7,500
	Security - Watchman	MO	6,500	24	156,000
	Clean-up	LS	1	14,000	14,000
5.0	**Subtotal of Pool Deck Area**				**5,405,293**
	Pool Deck Area SF cost				367

[redacted]

RPS #14-032 May. 07, 2014

Detailed Conceptual Estimate for [redacted] Hotel

	Sub Total of Direct Costs		**160,717,063**
Ref	**Description**	**Quantity**	**Cost**
	General Conditions	12%	19,286,048
	Contractors Fee	4%	6,428,683
	Subtotal		**186,431,793**
	Construction Contingency	7%	13,050,226
	Overhead and Administration	8%	14,914,543
	Permits & Insurance	4%	7,457,272
	Construction Subtotal*		**221,853,834**
	Cost per SF		**325**

NOTES:

*** 1) This estimate excludes: Demolition, Excavation, Shoring, and Dewatering. These disciplines should be budgeted at approximately $6.5 - $7.0 Million before mark-up. Therefore, this is not a *complete* conceptual estimate.**

2) This budget estimate has been prepared using the data documents supplied by [redacted] dated Tuesday, May 6, 2014 containing ftp site files of [redacted] plans, renderings, and sections showing some quantitative square footages. This budget estimate is based on the requested perameters of 500 keys 19 story Tower, 700 parking spaces below, totaling 25 levels, including mezzanine areas.

3) Prices of materials are based on current prices with a 2% escalation added. Labor prices contained in the unit costs are per current labor rate agreements with local unions within 45 miles of the city of Los Angeles. A greater detailed estimate shall be prepared as Design Documents are developed.

Construction Cost Estimate
Summary

Line	Code	Description	Notes	Qty.	Unit	Direct Cost Unit	Direct Cost Total	Construction Values	Project Cost Total
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11		**Direct Cost Total**							
12									
13		General Conditions							
14		Subtotal							
15									
16		Contractor's Overhead							
17		Contractor's Profit							
18		Insurance & Bond							
19									
20		Subtotal							
21		Contingency on Estimated Construction Costs							
22		**Total Estimated Construction Costs**							
23									
24		**Other Project Costs:**							
25		Construction Management							
26		Architecture/Design							
27		Structural Engineering							
28		Geotechnical Engineering							
29		Testing & Inspection							
30		Permits & Fees							
31		Relocation							
32									
33		Subtotal of Other Project Costs							
34		Contingency on Other Project Costs							
35		**Total of Other Project Costs**							
36									
37		**Total Estimated Project Cost**							

Construction Cost Estimate
Estimate Details

								Unit Cost				Total Cost					SUB
Line	CSI	Description	Notes / Ref.	Qty	Unit	Crew	Hrs	Labor	Material	Other	Subc.	Labor	Material	Other	Subc.	TOTAL	TOTAL
1																	
2																	
3																	
4																	
5																	
6																	
7																	
8																	
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30																	
31																	
32																	

Construction Cost Estimate
Summary

Line	Code	Description	Notes	Qty.	Unit	Direct Cost Unit	Direct Cost Total	Construction Values	Project Cost Total
1	02-300	Grading & Excavation		1	ls	$1,111.00	$1,111.00	$1,490.96	$1,856.55
2	06-100	Framing		16	sffa	$57.00	$912.00	$1,223.90	$1,524.01
3	07-300	Roofing	M=Allowance	1	sq	$445.00	$445.00	$597.19	$743.62
4	01-710	Final Clean-Up		1	ls	$610.00	$610.00	$818.62	$1,019.35
5									
6									
7									
8									
9									
10									
11		**Direct Cost Total**					$3,078	$4,131	$5,143.52
12									
13		General Conditions		10.0%			$307.80		
14		Subtotal					$3,386		
15									
16		Contractor's Overhead		10%			$339		
17		Contractor's Profit		10%			$339		
18		Insurance & Bond		2%			$68		
19									
20		Subtotal					$4,130.68		
21		Contingency on Estimated Construction Costs		10%			$413	$413	
22		**Total Estimated Construction Costs**					$4,543.74	$4,543.74	
23									
24		**Other Project Costs:**							
25		Construction Management		5%	ls		$227.19		
26		Architecture/Design		5%	ls		$227.19		
27		Structural Engineering		0			$0.00		
28		Geotechnical Engineering		0			$0.00		
29		Testing & Inspection		0			$0.00		
30		Permits & Fees		2%			$90.87		
31		Relocation		0			$0.00		
32									
33		Subtotal of Other Project Costs					$545.25		
34		Contingency on Other Project Costs		10%			$54.52		
35		**Total of Other Project Costs**					$599.77		
36									
37		**Total Estimated Project Cost**					**$5,143.52**		**$5,143.52**

Construction Cost Estimate
Estimate Details

								Unit Cost				Total Cost					SUB
Line	CSI	Description	Notes / Ref.	Qty	Unit	Crew	Hrs	Labor	Material	Other	Subc.	Labor	Material	Other	Subc.	TOTAL	TOTAL
1	02-300	Grading & Excavation		1	ls			1.00				1	-	-	-	$1.00	1,111
2		Equipment Rental	$50/HR	1	ls		8			400.00		-	-	400	-	$400.00	
3		Fuel for equipment		50	gal				3.00			-	150	-	-	$150.00	
4		Equipment Operator		1	ls	1	8	280.00				280	-	-	-	$280.00	
5		Labor		1	ls	1	8	280.00				280	-	-	-	$280.00	
6												-	-	-	-	$0.00	
7												-	-	-	-	$0.00	
8	06-100	Framing		16	sf				2.00			-	32	-	-	$32.00	912
9		Labor		16	sf	2	8	35.00				560	-	-	-	$560.00	
10		Material Bid by Lumber Yard	$20/sf	16	sf				20.00			-	320	-	-	$320.00	
11												-	-	-	-	$0.00	
12												-	-	-	-	$0.00	
13												-	-	-	-	$0.00	
14												-	-	-	-	$0.00	
15	07-300	Roofing										-	-	-	-	$0.00	445
16		Labor		16	sf	1	8	17.50				280	-	-	-	$280.00	
17		Materials										-	-	-	-	$0.00	
18		Underlayment		1	roll				25.00			-	25	-	-	$25.00	
19		Sheet Metal		20	lf				2.00			-	40	-	-	$40.00	
20		Roofing Material	Allowance	20	sf				5.00			-	100	-	-	$100.00	
21												-	-	-	-	$0.00	
22	01-710	Final Clean-Up	M=MISC	1	ls	2	8	560.00	50.00			560	50	-	-	$610.00	610
23												-	-	-	-	$0.00	
24												-	-	-	-	$0.00	
25												-	-	-	-	$0.00	
26												-	-	-	-	$0.00	
27		Assumptions										-	-	-	-	$0.00	
28		Labor is $35 per hour, burdened. Crew = # of Men in Crew										-	-	-	-	$0.00	
29												-	-	-	-	$0.00	
30												-	-	-	-	$0.00	
31																	
32												1,961	717	400	-	$3,078.00	3,078

10. DETAILED & BID/ CONSTRUCTION/TRIAL

(PFCS LEVELS 4-5)

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10. DETAILED & BID/CONSTRUCTION/TRIAL

Level 4 & Level 5: 10 Steps

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Level 5 Estimating

5 Levels - 10 Steps

3/10/2009

	Level 1	Level 2	Level 3	Level 4	Level 5
	Order of Magnitude	**Conceptual**	**Preliminary**	**Detailed**	**Bid / Construction / Trial**
STEP 1	Summary Sheet Only	Add capital letters (or numbers if L1 are letters) with 2 to 15 items under each of the main categories	Conform with the WBS rules: Main Category, then capital letters or numbers, then alternate with each new level.	See PFCS Samples for deeper and deeper levels. Conform to rules of WBS	Final Pass for clarity and ease of making references and following all of the cc
STEP 2					
STEP 3	A Level 1 Work Breakdown Structure (WBS): 1 paragraph to 1 page. There are only basic quantities (no real QTO) in approximate figures	Add details with 2-10 categories each with letters and CSI codes. Basic QTO on main items (SF, FA, LF, etc.) Usually not calculated units like Cubic Yards (CY)	Level 3 WBS with letters, numbers, and CSI codes. More detailed QTO.	Cor	Fi ke n
STEP 4					
STEP 5	Little or no breakdown of labor / time in this step	Rough Estimate, Typical crews, Round numbers, slightly over estimating. No calls	Productivity rates, Use Walker's book on big #s	Use	Fi
STEP 6	A guesstimate. Little QTO, Quantities only - not cost of materials. Assembly level estimates at the most	QTO, Rough Estimate, Slightly over estimating. Books only for big #'s, NO calls unless faster than book	Calls, Books, Maybe Alternatives	Cal refi	Fi
STEP 7					
STEP 8	WAG. Often none	Rough Estimate. No Calls	Calls, Books	Cal	Fi
	Unit prices, WAG, Use books only on BIG #'s	Books, NO calls	Some Calls	Lot info	Fi
STEP 9	% of Direct Cost	Reconsider % or Amount	Reconsider % or Amount	Bro	S
	% of Direct Cost	Reconsider % or Amount	Reconsider % or Amount	Pos	S
	% of Direct Cost	Reconsider % or Amount	Reconsider % or Amount	Rec	R
	WAG	SWAG	More Support	More Support	Calls Bids
STEP 10	1-4 Hours	2-24 Hours	16-100 Hours	50-200 Hours	100+ Hours

Level 4

Level 5

10. DETAILED & BID/CONSTRUCTION/TRIAL

Level 4: 10 Steps

1. **Format:** See PFCS Samples for deeper and deeper levels. Conform to rules of WBS
2. **Scope:** Complete, detailed QTO
3. **Time (Labor):** Use Walker's Productivity Rates
4. **Materials:** Calls, Bids, Alternatives refined
5. **Equipment:** Calls, Books, Bids
6. **Independent Subcontractors:** Lots of Calls, Maybe send info, Maybe Bids
7. **General Conditions:** Broken Down
8. **Internal (Overhead) Costs:** Possibly Broken Down
9. **Profit:** Reconsider % or Amount
10. **Non-Construction (Other) Costs:** More Support

Read about industry impacts on our blog at www.petefowler.com

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10. DETAILED & BID/CONSTRUCTION/TRIAL

Level 5: 10 Steps

1. **Format:** Final Pass for clarity and ease of making references and following all of the component parts
2. **Scope:** Final Pass. Check QTO on key items
3. **Time (Labor):** Final Pass.
4. **Materials:** Final Pass.
5. **Equipment:** Final Pass.
6. **Independent Subcontractors:** Final Pass.
7. **General Conditions:** Broken Down
8. **Internal (Overhead) Costs:** Possibly Broken Down
9. **Profit:** Reconsider % or Amount
10. **Non-Construction (Other) Costs:** Calls/Bids

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10. DETAILED & BID/CONSTRUCTION/TRIAL

Detailed Estimating

REMEMBER:

- Document all assumptions, somewhere. Make plan sheet and detail references into Estimate Details sheet.
- You are building the project on paper.
- Define the scope of work in the estimate details.
- Don’t get lost in the details.
- Make multiple passes at consistent depth.
- Use the phone.
- Use the internet.
- Use your resources.
- Make sketches.

10. DETAILED & BID/CONSTRUCTION/TRIAL

Refine the Estimate

MANY PASSES

- Compare to past experience
- Receive and evaluate Bids & Proposals from subcontractors and suppliers
- Update the estimate as necessary
- Calls and research for material and equipment costs
- Document all resources
- Scrutinize all assumptions and document conclusions
- Value Engineering
- Repeat as necessary

10. DETAILED & BID/CONSTRUCTION/TRIAL

Peer Review

- Another estimator should conduct peer review, if possible
- If no estimator is available, then review by any other staff member is better than no review
- This is important
- Update as necessary

10. DETAILED & BID/CONSTRUCTION/TRIAL

Case Study

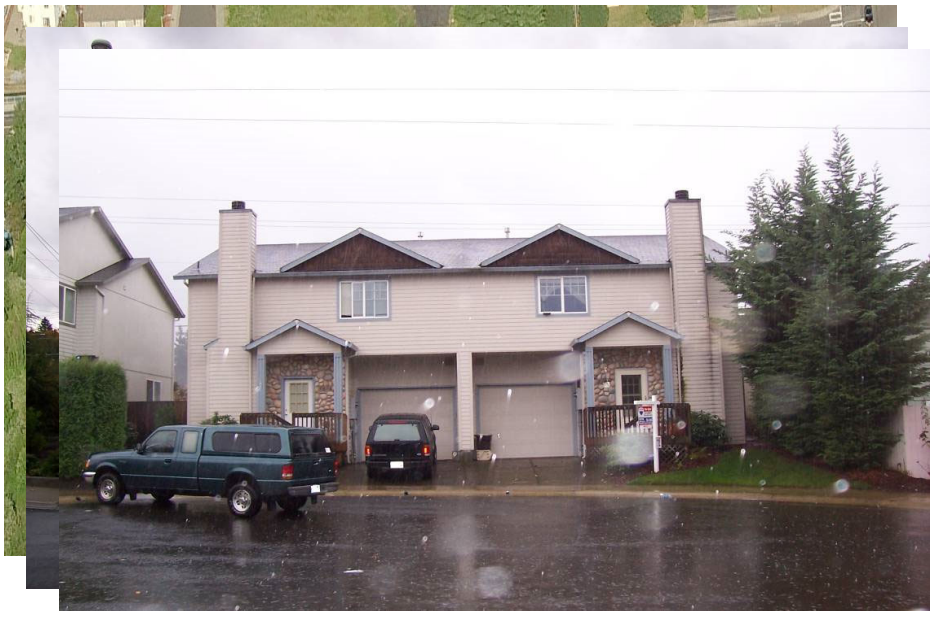
THOMPSON'S GARDENS



10. DETAILED & BID/CONSTRUCTION/TRIAL

Case Study

CUBAN'S MANOR



Pete Fowler Construction Services, Inc.

Project Number:	07-331
Project Name:	Thompson Gardens
Address:	45 SW 32nd Ave. Somewhere, OR
Description:	Replace siding at front elevation, replace trim at others, paint all exterior, and repair interior finishes
Date:	4/9/2008
Estimator:	Pete Fowler/Rich Kunze

For mediation purposes only.
Protected under all applicable evidence codes.

Construction Cost Estimate Contents

1 Estimate Summary
2 Estimate Details by Issue
3 Labor Rates
4 Bids

For mediation purposes only.
Protected under all applicable evidence codes.

Thompson Gardens

Estimate Summary

#	Issue	Description	Notes	Qty.	Unit	Direct Cost Unit	Direct Cost Total	Project Cost Total
1	01 74	Cleaning		1	ls	4,397.18	$ 4,397.18	$ 6,849.17
2	02 40	Demolition		6,000	sf	4.37	$ 26,223.30	$ 40,846.15
3	02 80	Facility Remediation & Abatement		1	ls	5,000.00	$ 5,000.00	$ 7,788.14
4	04 00	Masonry		400	sf	38.87	$ 15,547.60	$ 24,217.39
5	06 10	Rough Carpentry		6,000	sf	11.59	$ 69,554.15	$ 108,339.53
6	06 20	Finish Carpentry		180	lf	11.87	$ 2,136.00	$ 3,327.09
7	07 20	Thermal Protection (& Insulation)		750	sf	1.24	$ 931.68	$ 1,451.21
8	07 46	Siding		6,000	sf	14.19	$ 85,168.08	$ 132,660.23
9	07 61	Flashing & Sheet Metal	Incl in 07 46					
10	07 71	Roof Gutters	Maintenance					
11	07 92	Joint Sealants	Incl in 07 46					
12	08 50	Windows	Incl in 06 10					
13	09 25	Gypsum Board (Incl. Interior Plaster)		2,000	sf	3.96	$ 7,921.20	$ 12,338.29
14	09 60	Flooring		1,000	sf	5.82	$ 5,817.20	$ 9,061.04
15	09 90	Painting and Coating		17,000	sf	1.90	$ 32,300.00	$ 50,311.40
16	13 11	Swimming Pools	No work					
17	23 00	Heating, Ventilating, and Air-Conditioning		1	ls	1,000.00	$ 1,000.00	$ 1,557.63
18	32 90	Planting (Landscape and Irrigation)		1	ls	4,464.30	$ 4,464.30	$ 6,953.72
19	50 15	Architectural / Design	See below					
20								
21								
22		**Direct Cost Total**					$ 260,460.68	$ 405,700.99
23								
24		General Conditions		8%			$ 20,836.85	
25		Subtotal					$ 281,297.53	
26								
27		Contractor's Overhead		8%			$ 22,503.80	
28		Contractor's Profit		10%			$ 28,129.75	
29		Insurance & Bond		2%			$ 5,625.95	
30								
31		Subtotal					$ 337,557.04	
32		Contingency on Construction Costs		5%			$ 16,877.85	
33		**Total Estimated Construction Costs**					$ 354,434.89	
34								
35		**Other Project Costs:**						
36		Construction Management		5%			$ 17,721.74	
37		Architectural / Drafting / Design		1	ls		$ 20,000.00	
38		Engineering Design						
39		Testing & Inspection (Environmental)		1	ls		$ 10,000.00	
40		Permits & Fees		1%			$ 3,544.35	
41		Relocation	None					
42								
43		Subtotal of Other Project Costs					$ 51,266.09	
44		Contingency on Other Project Costs		0%			$ -	
45		**Total of Other Project Costs**					$ 51,266.09	
46								
47		**Total Estimated Project Cost**					**$ 405,700.99**	**$ 405,700.99**

For mediation purposes only.
Protected under all applicable evidence codes.

Thompson Gardens

Estimate Details

								Unit Cost				Direct Cost				Total	Total
Line	Issue	Item	Description	Notes / Ref.	Qty	Unit	Crew	Hrs	Labor	Material	Other	Subc.	Labor	Material	Other	Subc.	Cost	Item
1	**01 74**		**Cleaning**										-	-	-	-	$0.00	$4,397.18
2		A	Provide dumpster for the duration of repairs	$ by TSS ($.09/lb)	6	ea					600.00		-	-	3,600	-	$3,600.00	
3		B	Clean site daily of all debris	1 hr per day	1	ls	D1	30	797.18				797	-	-	-	$797.18	
4													-	-	-	-	$0.00	
5	**02 40**		**Demolition**										-	-	-	-	$0.00	$26,223.30
6		A	**Front Elevation ONLY**										-	-	-	-	$0.00	
7		1	Remove all Hardi siding product (lap & shingle)	O=Equip	6,000	sf	D4	80	0.99		0.10		5,952	-	600	-	$6,552.40	
8		2	Remove all WRB, including all fasteners (nails & staples)	included in A.1 above									-	-	-	-	$0.00	
9		3	Remove all stone veneer except at Pool Room	O=Equip	400	sf	D4	24	4.46		1.00		1,786	-	400	-	$2,185.72	
10		4	Remove all damaged GWB sheathing		1,500	sf	D4	24	1.19				1,786	-	-	-	$1,785.72	
11		5	Remove all damaged OSB sheathing		750	sf	D4	24	2.38				1,786	-	-	-	$1,785.72	
12		6	Evaluate framing under damaged OSB and remove as necessary		500	sf	D4	24	3.57				1,786	-	-	-	$1,785.72	
13		7	Remove water damaged insulation		750	sf	D4	8	0.79				595	-	-	-	$595.24	
14		8	Remove Ply-trim		2,500	lf	D4	24	0.71				1,786	-	-	-	$1,785.72	
15		9	Remove all windows (this elevation only)		51	ea	D4	51	74.41				3,795	-	-	-	$3,794.66	
16		B	**Other Areas**										-	-	-	-	$0.00	
17		1	Remove damaged window sills at interior		150	lf	D4	8	3.97				595	-	-	-	$595.24	
18		2	Remove damaged flooring as necessary		1,000	sf	D4	24	1.79				1,786	-	-	-	$1,785.72	
19		3	Remove all Ply-trim (assume 11lf of trim per 1lf of ext. wall surface, not incl windows)	incl. in A.1 above	4,000	lf	D4	40	0.74				2,976	-	-	-	$2,976.20	
20		4	Upon removal of Ply-trim, visually evaluate window condition and replace as necessary		10	ea	D4	8	59.52				595	-	-	-	$595.24	
21													-	-	-	-	$0.00	
22	**02 80**		**Facility Remediation & Abatement**										-	-	-	-	$0.00	$5,000.00
23		A	Remove materials damaged by mold by standard remediation practices		1	ls					5,000.00		-	-	5,000	-	$5,000.00	
24													-	-	-	-	$0.00	
25	**04 00**		**Masonry**										-	-	-	-	$0.00	$15,547.60
26		A	Replace all stone veneer at front elevation		400	sf	C3	80	33.07	5.80			13,228	2,320	-	-	$15,547.60	
27													-	-	-	-	$0.00	
28	**06 10**		**Rough Carpentry**										-	-	-	-	$0.00	$69,554.15
29		A	**Front Elevation**										-	-	-	-	$0.00	
30		1	Replace damaged framing at front elevation		500	sf	RC4	48	9.92	0.61			4,961	305	-	-	$5,265.80	
31		2	Replace damaged OSB		750	sf	RC4	24	3.31	0.18			2,483	135	-	-	$2,617.50	
32		3	Replace damaged GWB		1,500	sf	RC4	48	3.31	0.25			4,961	375	-	-	$5,335.80	
33		4	Provide protection of access at front entry (walls and ceilling at front doors)		1	ls	RC4	16	1,653.60	500.00			1,654	500	-	-	$2,153.60	
34		5	Maintain protection at front entry	2 hrs per week	1	ls	RC1	24	2,480.40	50.00			2,480	50	-	-	$2,530.40	
35		6	Replace all windows (LC-35, 118 mph) (see option A)	Wdo $ from Edelen	51	ea	RC4	51	103.35	250.00			5,271	12,750	-	-	$18,020.85	
36		7	Install 6" strip of Vycor + Flashing at all nailing flanges in weatherboard fashion	labor incl. in #6 above	1,275	lf	RC4	102	8.27	0.32			10,542	408	-	-	$10,949.70	
37													-	-	-	-	$0.00	
38			Window option A - Class C-60, 155 mph $574 ea. In casement style only, would add $20K in Direct Cost										-	-	-	-	$0.00	
39													-	-	-	-	$0.00	
40		B	**Other Areas**										-	-	-	-	$0.00	
41		1	Replace damaged windows (LC-35, 118 mph) (see option A)	Wdo $ from Edelen	10	ea	RC4	10	103.35	250.00			1,034	2,500	-	-	$3,533.50	
42		2	Install 6" strip of Vycor + Flashing at all nailing flanges in weatherboard fashion	labor incl. in #1 above	250	lf	RC4	20	8.27	0.32			2,067	80	-	-	$2,147.00	
43		C	**Entire Building**										-	-	-	-	$0.00	
44		1	Install scaffolding at the entire building perimeter.	SWAG - $1 p/sf	17,000	sf					1.00		-	-	17,000	-	$17,000.00	
45													-	-	-	-	$0.00	
46	**06 20**		**Finish Carpentry**										-	-	-	-	$0.00	$2,136.00
47		A	Replace damaged window sills with product selected by architect (see 50 15 B)	30/6'	180	lf	FC4	16	9.19	2.68			1,654	482	-	-	$2,136.00	
48													-	-	-	-	$0.00	
49	**07 20**		**Thermal Protection (& Insulation)**										-	-	-	-	$0.00	$931.68
50		A	Replace damaged insulation		750	sf	RC1	16	0.60	0.64			452	480	-	-	$931.68	
51													-	-	-	-	$0.00	
52	**07 46**		**Siding**										-	-	-	-	$0.00	$85,168.08
53		A	**Front Elevation**										-	-	-	-	$0.00	
54		1	Install rain screen siding system (see 5E Rain Screen Installation Procedure)										-	-	-	-	$0.00	
55		2	Install 3' wide layer of Ice & Water Shield at bottom of wall	mat $ by White Cap	225	lf	RC4	12	5.51	1.99			1,240	448	-	-	$1,687.95	
56		3	Install layer of Super Jumbo-Tex WRB type D (Jumbo-Tex 60)	mat $ by White Cap	6000	sf	RC4	24	0.41	0.05			2,480	300	-	-	$2,780.40	

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Thompson Gardens

Estimate Details

								Unit Cost				Direct Cost				Total	Total
Line	Issue	Item	Description	Notes / Ref.	Qty	Unit	Crew	Hrs	Labor	Material	Other	Subc.	Labor	Material	Other	Subc.	Cost	Item
57		4	Install new 2x6 cedar trim at windows, doors, penetrations and corners at front elevation	1700-W, 60-D, 360-OSC	2120	lf	RC4	48	2.34	1.60			4,961	3,392	-	-	$8,352.80	
58		5	Install new 2x2 cedar tirm at inside corners		120	lf	RC4	12	10.34	0.75			1,240	90	-	-	$1,330.20	
59		6	Install 2x4 PT blocking for fascia at top of wall		225	lf	RC4	12	5.51	0.87			1,240	196	-	-	$1,435.95	
60		7	Install Cor-A-Vent SV-3 at wall bottom and top	mat $ by ABC	450	lf	RC4	12	2.76	0.58			1,240	261	-	-	$1,501.20	
61		8	Install 1/2" PT battens (2" wide) every 16" o.c. (on studs) from bottom of wall to soffit		5200	lf	RC4	48	0.95	0.21			4,961	1,092	-	-	$6,052.80	
62		9	Install 1/2" PT battens (2" wide) adjacent to all trim boards for siding attachment		2120	lf	RC4	48	2.34	0.21			4,961	445	-	-	$5,406.00	
63		10	Install 1x6 cedar fascia at soffit for venting		225	lf	RC4	12	5.51	1.90			1,240	428	-	-	$1,667.70	
64		11	Install 3" wide strips of 15# felt over firring strips before nailing clapboards		586	sf	RC4	8	1.41	0.03			827	18	-	-	$844.38	
65		12	Coordinate with flashing , install SS head flashing at doors and windows	*	1,000	lf	RC4	24	2.48	1.90			2,480	1,900	-	-	$4,380.40	
66		13	Install HardiPlank Lap siding		6000	sf	RC4	80	1.38	0.92			8,268	5,520	-	-	$13,788.00	
67		14	Install 5/8" backer rod in joint gap between window frame and trim	mat $ by White Cap	1,530	lf	RC4	16	1.08	0.09			1,654	138	-	-	$1,791.30	
68		15	Install sealant at joint gap over backer rod	mat $ by White Cap	1,530	lf	RC4	24	1.62	0.80			2,480	1,224	-	-	$3,704.40	
69		16	Stainless Steel Fasteners allowance	mat $ Stainless Fasteners	1	ls				1,200.00			-	1,200	-	-	$1,200.00	
70		B	**Other Areas**					32					-	-	-	-	$0.00	
71		1	Replace all Ply-trim at all elevations with 5/4x6 Cedar, integrate new WRB with old		4,000	lf	RC4	80	2.07	1.80			8,268	7,200	-	-	$15,468.00	
72		2	Replace all window and door trim with 5/4 x 6 cedar, allow 1/2" space for backer rod and sealant joint	included in A above	1,800	lf	RC4	48	2.76	1.80			4,961	3,240	-	-	$8,200.80	
73		3	Install 5/8" backer rod in joint gap between window frame and trim	mat $ by White Cap	1,620	lf	RC4	16	1.02	0.09			1,654	146	-	-	$1,799.40	
74		4	Install sealant at joint gap over backer rod	mat $ by White Cap	1,620	lf	RC4	24	1.53	0.80			2,480	1,296	-	-	$3,776.40	
75													-	-	-	-	$0.00	
76	**07 61**		**Flashing & Sheetmetal (Install SS Flashings Throughout)**	Incl in 07 46									-	-	-	-	$0.00	$0.00
77		A	Coordinate with sider, install SS flashing with end-dams at all windows										-	-	-	-	$0.00	
78		B	Coordinate with sider, install SS flashing with end-dams at all door heads										-	-	-	-	$0.00	
79		C	Install SS flashing at all trim joints less than vertical (includes horizontal and angles)										-	-	-	-	$0.00	
80													-	-	-	-	$0.00	
81	**07 71**		**Roof Gutters**	Mainenance									-	-	-	-	$0.00	$0.00
82		A	Review roof drainage system, including attachment, joint laps, and repair as necessary.										-	-	-	-	$0.00	
83		B	Clean roof drainage system including gutters, down spouts and underground drainage										-	-	-	-	$0.00	
84		C	Ensure slope to downspout at all gutters.										-	-	-	-	$0.00	
85													-	-	-	-	$0.00	
86	**07 92**		**Joint Sealants**	Incl in 07 46									-	-	-	-	$0.00	$0.00
87													-	-	-	-	$0.00	
88	**08 50**		**Windows**	Incl in 06 10									-	-	-	-	$0.00	$0.00
89													-	-	-	-	$0.00	
90	**09 25**		**Gypsum Wallboard (GWB)**										-	-	-	-	$0.00	$7,921.20
91		A	**Front Elevation**										-	-	-	-	$0.00	
92		1	Replace damaged GWB sheathing at front elevation		1,500	sf	RC4	48	3.31	0.25			4,961	375	-	-	$5,335.80	
93		B	**Other Areas**										-	-	-	-	$0.00	
94		1	Repair damaged GWB at guest rooms		500	sf	RC4	24	4.96	0.21			2,480	105	-	-	$2,585.40	
95													-	-	-	-	$0.00	
96	**09 60**		**Flooring - General**										-	-	-	-	$0.00	$5,817.20
97		A	Replace damaged flooring materials with like material	$ by 2008 RS Means	1000	sf	RC4	32	3.31	2.51			3,307	2,510	-	-	$5,817.20	
98													-	-	-	-	$0.00	
99	**09 90**		**Paint & Coatings**										-	-	-	-	$0.00	$32,300.00
100		A	250		17,000	sf			0.24	0.20			4,080	3,400	-	-	$7,480.00	
101		B	Repaint the entire building with 2 coats of premium grade latex acrylic paint		34,000	sf			0.24	0.49			8,160	16,660	-	-	$24,820.00	
102													-	-	-	-	$0.00	
103	**13 11**		**Swimming Pools**										-	-	-	-	$0.00	$0.00
104		A	No work in this area - repairs complete										-	-	-	-	$0.00	
105													-	-	-	-	$0.00	
106	**23 00**		**Heating, Ventilating, and Air-Conditioning**										-	-	-	-	$0.00	$1,000.00
107		A	Review HVAC system for conformity to design and functionality		1	ls		4	1,000.00				1,000	-	-	-	$1,000.00	

Thompson Gardens

Estimate Details

								Unit Cost				Direct Cost				Total	Total
Line	**Issue**	**Item**	**Description**	**Notes / Ref.**	**Qty**	**Unit**	**Crew**	**Hrs**	**Labor**	**Material**	**Other**	**Subc.**	**Labor**	**Material**	**Other**	**Subc.**	**Cost**	**Item**
108													-	-	-	-	$0.00	
109	**32 90**		**Planting (Landscape and Irrigation)**										-	-	-	-	$0.00	$4,464.30
110		A	Remove, store and protect smaller plants within 6 feet of front elevation, see 32 90 A below		1	ls	D4	24	1,785.72				1,786	-	-	-	$1,785.72	
111		B	Wrap and tie back trees for protection		1	ls	D4	12	892.86				893	-	-	-	$892.86	
112		C	Re-install small plants		1	ls	D4	24	1,785.72				1,786	-	-	-	$1,785.72	
113													-	-	-	-	$0.00	
114	**50 15**		**Architectural / Design Details - Pricing on Summary page**										-	-	-	-	$0.00	$0.00
115		A	**Front Elevation**										-	-	-	-	$0.00	
116		1	Provide details for complete rain screen siding system										-	-	-	-	$0.00	
117		2	Provide design and specification for new windows										-	-	-	-	$0.00	
118		3	Provide details for window flashing and installation to be integrated with rain screen siding system										-	-	-	-	$0.00	
119		B	**Other Areas**										-	-	-	-	$0.00	
120		1	Provide design and specification for replacement for damaged windows										-	-	-	-	$0.00	
121													-	-	-	-	$0.00	
122	*		Material pricing from FM Sheet Metal										-	-	-	-	$0.00	
123			Labor pricing from CLP										-	-	-	-	$0.00	
124			Material pricing from Home Depot UNO										-	-	-	-	$0.00	
125																		
126			Total										161,893	71,968	26,600	-	$260,460.68	$260,460.68

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Thompson Gardens

Labor Rates

		Unit	Rate	Description																
				Laborer			Carpenter			Conc. Fin.			Roofer			Asst. Project	Project			
				App	Jou	For.	App	Jou	For.	App	Jou	For.	App	Jou	For.	Manager	Manager	Supt.	Average	
1				12.00	15.00	22.50	15.00	30.00	40.00	15.00	30.00	35.00	15.00	25.00	30.00	25.00	45.00	40.00	26.30	
2		$0	/Hr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3	Newport, OR	$0	/Hr	30.00	lf	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.14	
4	Education	$0.00	/Hr	100.00	sf	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.14	
5	**Fica**	7.65%	%	0.92	1.15	1.72	1.15	2.30	3.06	1.15	2.30	2.68	1.15	1.91	2.30	1.91	3.44	3.06	2.01	
6	2/21/2008	0.00%	%	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.00	
7	**Federal Unemp**	0.80%	%	20.00		0.18	0.12	0.24	0.32	0.12	0.24	0.28	0.12	0.20	0.24	0.20	0.36	0.32	1.64	
8	**Futa**	8.00%	%	225.00	1.20	1.80	1.20	2.40	3.20	1.20	2.40	2.80	1.20	2.00	2.40	2.00	3.60	3.20	17.04	
9	SDI	0.00%	%	204.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.60	
10	**State Unemp**	3.50%	%	561.00	0.53	0.79	0.53	1.05	1.40	0.53	1.05	1.23	0.53	0.88	1.05	0.88	1.58	1.40	38.29	
11	**Workman's Comp BLW $21**	48.00%	%	5.76	7.20		7.20			7.20						1.25	2.25		5.14	
12	**Workman's Comp ABV $21**	16.00%	%			3.60		4.80	6.40		4.80	5.60						6.40		
13	**Roofer BLW $21**	75.00%	%										11.25							
14	**Roofer ABV $21**	50.00%												12.50	15.00					
15	**Vehicle**	$0	%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
16	**Liability Insurance**	10.00%	%	1.20	1.50	2.25	1.50	3.00	4.00	1.50	3.00	3.50	22.50	37.50	45.00	2.50	4.50	4.00	9.16	
17																				
18	**Burdened $/Hr.**			**21.26**	**26.57**	**32.84**	**28.23**	**37.56**	**52.24**	**26.69**	**43.79**	**51.08**	**51.74**	**79.99**	**95.99**	**33.74**	**60.73**	**58.38**	**77.87**	
19	Percent Overhead			44%	44%	31%	47%	20%	23%	44%	31%	31%	71%	69%	69%	26%	26%	31%	67.51%	**Crew Cost**
20																				
21																			**Crew Cost**	**per Hour**
22																			**per Hour**	**w/ 20% O&P**
23	**Demolition**																			
24	**D 1**				1														**$26.57**	**$31.89**
25	**D 2**			1	1														**$47.83**	**$57.40**
26	**D 3**				2														**$53.15**	**$63.77**
27	**D 4**			1	2														**$74.41**	**$89.29**
28	**D 5**				2			1											**$90.71**	**$108.85**
29	**D 6**			1	2			1											**$111.97**	**$134.36**
30	**D 7**			2	2														**$95.67**	**$114.80**
31				2	2			2											**$170.79**	**$204.94**
32																				
33	**Site Work**																			
34	**SW 1**			1															**$21.26**	**$25.51**
35	**SW 2**			2															**$42.52**	**$51.02**
36	**SW 3**			1	1														**$47.83**	**$57.40**
37	**SW 4**			2	1														**$69.09**	**$82.91**
38	**SW 5**			0	1			1			1								**$107.92**	**$129.50**
39	**SW 6**			0	2			2			2								**$215.84**	**$259.00**
40	**SW 7**						1	1											**$65.79**	**$78.95**
41	**SW 8**						1	2											**$103.35**	**$124.02**
42	**SW 9**						2	2											**$131.58**	**$157.90**
43	**SW 10**				1			1											**$64.13**	**$76.96**
44	**Concrete**																			
45	**C 1**										1								**$43.79**	**$52.54**
46	**C 2**									1	1								**$70.48**	**$84.57**
47	**C 3**									1	2	1							**$165.35**	**$198.41**
48	**C 4**							1			3								**$168.92**	**$202.70**
49	**C 5**				1			2			3								**$233.05**	**$279.66**
50	**C 6**			1	1		1	1		1	3								**$271.67**	**$326.00**
51	**C 7**			1	1		1	2		1	2	1							**$316.53**	**$379.83**
52	**Rough Carpentry**																			
53	**RC 1**						1												**$28.23**	**$33.88**
54	**RC 2**							1											**$37.56**	**$45.07**
55	**RC 3**								1										**$52.24**	**$62.69**
56	**RC 4**						1	2											**$103.35**	**$124.02**
57	**RC 5**						2	2											**$131.58**	**$157.90**
58	**RC 6**						3	3	1										**$249.61**	**$299.53**
59	**RC 7**				1		2	2											**$158.15**	**$189.78**
60	**RC 8**				2		2	2	1										**$236.97**	**$284.36**
61	**Finish Carpentry**																			
62	**FC 1**						1												**$28.23**	**$33.88**
63	**FC 2**							1											**$37.56**	**$45.07**
64	**FC 3**								1										**$52.24**	**$62.69**
65	**FC 4**						1	2											**$103.35**	**$124.02**
66	**FC 5**						2	2											**$131.58**	**$157.90**
67	**FC 6**						2	2	1										**$183.82**	**$220.58**
68	**Roofing**																	0		
69	**RF 1**												1						**$51.74**	**$62.09**
70	**RF 2**													1					**$79.99**	**$95.99**
71	**RF 3**												0	0	0	0	0		**$0.00**	**$0.00**
72	**RF 4**												1	2					**$211.72**	**$254.06**
73	**RF 5**												2	2					**$263.46**	**$316.15**
74	**RF 6**												2	2	1				**$359.45**	**$431.33**

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Thompson Gardens

Calls, Sub-Bids, Materials

		2	3	4
Date:	3/26/2008	3/28/2008	3/28/2008	3/28/2008
Time:	12:00 noon	9:30 AM	11:15 AM	1:05 AM
Sub-Contractor:				
Material Supplier:	ABC Supplier	Joe's Sanitary Service	PO Sheet Metal	Lots O' Luumber
Contact:	George	Joe	Dick	
Street Address:			3000 Pierce Parkway, Somewhere, Oregon	10600 SW Tillsdale, Somewhere, OR
Phone #:	800-555-5501	800-555-5502	800-555-5503	800-555-5504
Fax #:				
e-mail				
Bidding Sections:	Siding	Cleaning	Siding	Siding
Bidding Section #'s:	07 46	01 74	07 46	07 46
Bid Amount:	4')	$.05 per lb.	$1,425.00 for 750lf 304SS 24ga. 2B, $1.90 p/lf	
With Tax and Delivery:				
With Waste:				
Per Unit (SF, LF, CY, Etc.)	LF	LB	LF	LF
Inclusions:	available in PDX	see email attachment in file	Z metal flashing for belly bands & window heads	5/4x6 solid $1.80 lf, FJ 1.95lf

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Thompson Gardens

Calls, Sub-Bids, Materials

	5	6
Date:	4/1/2008	4/4/2008
Time:	10:55 AM	10:30 AM
Sub-Contractor:		
Material Supplier:	Super Stone & Brick	Mick's Custom Door & Window
Contact:	Wes	Mick
Street Address:	34790 Rudy Ln. Somewhere, Oregon	5334 47th Street, Somewhere, OR
Phone #:	800-555-5505	800-555-5506
Fax #:		
e-mail		
Bidding Sections:	Masonry	Rough Carpentry
Bidding Section #'s:	04 00	06 10
Bid Amount:	$5.80	LC-35 - $250
With Tax and Delivery:		C-60 - $574
With Waste:		
Per Unit (SF, LF, CY, Etc.)	SF	ea
Inclusions:	all cultured stone is same price; suggested $20-$22sf for mat and labor	LC-35 meets code at 118MPH winds, C-60 far exceeds at 155 mph but is only available in casement style

For mediation purposes only.
Protected under all applicable evidence codes.

Preliminary Estimate

Pete Fowler Construction Services, Inc.

Project Number:	06-298
Project Name:	Cuban's Manor v Doc Jones Builders
Address:	NE 24th Court & NE 80th Street, Somewhere, WA
Description	Multi-Family Project. Repair of Construction Defects
Date:	1/22/2007
Estimator:	Pete Fowler

Construction Cost Estimate Contents

1 Title Page
2 Summary
3 Estimate Details
4 Labor and Crew Rates

Cuban's Manor v Doc Jones Builders

Estimate Summary - Complete

#	Issue	Description	Notes	Qty.	Unit	Direct Cost Unit	Direct Cost Total	Project Cost Total
1	**A**	**Grading and Landscaping**					-	-
2	1	Grading next to buildings does not allow for proper drainage		2	loc	$661.32	1,322.63	1,940.00
3	2	Construction debris has not been removed from the site		-	ea		-	-
4	3	Construction silt fence has not been removed from site		-	loc		-	-
5	4	Debris has not been removed from the rain drain piping		-	ea		-	-
6	5	Wood fence boards are buried in the ground		-	ea		-	-
7	6	Crawl space ventilation. Moist soil below vapor barrier.		-	loc		-	-
8	**B**	**Concrete Walks and Patios**					-	-
9	1	The top surfaces of the concrete walks and porches too high		-	loc		-	-
10	2	The concrete walks and porches at some units placed after the siding installed, embedding siding and trim		-	loc		-	-
11	3	Concrete forms have been left in place		-	allow		-	-
12	4	Concrete wall form ties have been left in place		1	allow	$400.48	400.48	587.41
13	5	Concrete crack control joints are inadequate	BLDG E-B	22	sf	$366.33	8,059.16	11,820.92
14	**C**	**Stone and Brick Cladding**					-	-
15	1	The stone cladding doesn't have proper weep provisions		-	sf		-	-
16	2	The brick cladding does not have proper weep provisions		-	sf		-	-
17	3	The stone cladding is damaged		10	loc	$370.48	3,704.80	5,434.08
18	4	Mortar droppings are not cleaned up		1	loc	$400.48	400.48	587.41
19	5	Brick caps are not sloped enough to shed water					-	-
20	**D**	**Wood Framing**					-	-
21	1	Moisture intrusion behind cladding caused framing damage		20	bldg	$510.72	10,214.40	14,982.16
22	2	Wood sheathing not installed under the window nailing fins					-	-
23	3	Wood framing is not installed in a workmanlike manner	See D1	1	loc	$1,281.12	1,281.12	1,879.11
24	4	Wood blocking between joists are missing	See D1	1	allow	$1,000.00	1,000.00	1,466.77
25	5	Beam between kitchen and living room deficiently sized resulting in excessive deflection from dead//live loads.		12	ea	$5,218.80	62,625.60	91,857.27
26	6	4x4 post missing below beam between kitchen / living room.	See D5				-	-
27	**E**	**Exterior Wood Defects**					-	-
28	1	Wood posts at the porches are embedded in the concrete	BLDG L	1	loc	$738.74	738.74	1,083.55
29	2	Wood deck steps are damaged		4	loc	$175.24	700.96	1,028.15
30	3	Wood deck posts are not attached to the footing			bldg		-	-
31	4	Wood stair stringers are in contact with concrete walks	No repair	-	loc		-	-
32	**F**	**Exterior Wood Trim**			lf		-	-
33	1	Garage door jambs in contact with the concrete driveways		-	ea		-	-
34	2	Wood trim at porch columns is in contact with the concrete	Allowance	2	ea	$813.40	1,626.80	2,386.14
35	3	Exterior wood trim is damaged and must be replaced	Allowance	5	loc	$175.24	876.20	1,285.18
36	4	Visible roof overhang plywood is of a poor grade		-	loc		-	-
37	5	Mushrooms are growing behind the exterior wood trim	See Siding	-	loc		-	-
38	6	Column trim is installed without slope	See F2	-	loc		-	-
39	7	Window trim is incorrectly installed	See WDO	-	loc		-	-
40	8	Porch soffits are unvented		-	lf		-	-
41	9	Flat wood trim detail at columns not directing water away	See F2	-	ea		-	-
42	**G**	**HardiPlank Lap Siding**					-	-
43	1	There is serious damage at the HardiPlank lap siding		100	sf	$5.50	550.00	806.72
44	2	Building paper improperly lapped under HardiPlank siding					-	-
45	3	Building paper is missing under the HardiPlank lap siding					-	-
46	4	Building paper is visible below the HardiPlank lap siding					-	-
47	5	HardiPlank lap siding is installed with excessive lap					-	-
48	6	HardiPlank lap siding not installed in a workman-like manner					-	-
49	7	HardiPlank lap siding closer than 2-inches to concrete					-	-
50	8	HardiPlank lap siding closer than six-inches to soil surfaces					-	-
51	9	HardiPlank lap siding closer than two-inches to roof surfaces					-	-
52	10	HardiPlank lap siding is damaged					-	-
53	11	Lap siding fasteners installed through window nailing fins					-	-
54	12	Nails pulling out of siding.					-	-
55	13	Siding at windows over-cut and not caulked.					-	-
56	14	HardiPlank lap siding insufficiently caulked					-	-
57	15	Transitions from horizontal to vertical siding does not meet industry standards, possible source of water intrusion.					-	-

Cuban's Manor v Doc Jones Builders

Estimate Summary - Complete

#	Issue	Description	Notes	Qty.	Unit	Direct Cost Unit	Direct Cost Total	Project Cost Total
58	**H**	**Panelized Shingle Siding**					-	-
59	1	Building paper is missing under the shingle siding	Assme. 3 loc	210	sf	$10.50	2,205.00	3,234.23
60	2	Shingle siding is improperly fastened					-	-
61	3	Shingles are missing from the panelized shingle siding					-	-
62	4	Shingle / shake siding with water staining					-	-
63	5	Siding at windows over-cut and not caulked.					-	-
64	**I**	**Vertical Panel Siding**		13,392	sf	$5.50	73,656.00	108,036.32
65	1	Wood framing is moisture damaged behind the panel siding					-	-
66	2	Building paper is missing behind the vertical panel siding					-	-
67	3	Vertical panel siding not installed in a workman-like manner					-	-
68	4	Vertical panel siding installed closer than 2-inches to conc.					-	-
69	5	Vertical panel siding is installed closer than six-inches to soil					-	-
70	6	Nails pulling out of siding.					-	-
71	7	Siding at windows over-cut and not caulked.					-	-
72	8	Transitions from horizontal to vertical siding does not meet industry standards, possible source of water intrusion.					-	-
73	**J**	**Roofs**					-	-
74	1	Framing design is inadequate at the front entries		13	loc	$1,339.13	17,408.72	25,534.57
75	**K**	**Sheet Metal Flashing / Gutters**					-	-
76	1	Sheet metal flashings improperly lapped with building paper		-	lf		-	-
77	2	Sheet metal kick-out & diverter flsgs. missing /inadequate		-	loc		-	-
78	3	Sheet metal window head flashings are missing		166	ea	$446.68	74,148.88	108,759.26
79	4	Sheet metal entry door head flashings are missing		-	lf		-	-
80	5	Sheet metal garage door head flashings are missing		-	lf		-	-
81	6	Sheet metal wall exhaust vent head flashings are missing		-	ea		-	-
82	7	Sheet metal head flashings at wall penetrations are missing		-	ea		-	-
83	8	Sheet metal door sill pans under entry doors are missing		-	ea		-	-
84	9	Door sill pans under sliding glass doors are missing		-	ea		-	-
85	10	Sheet metal flashings at deck divider walls are missing		-	ea / lf		-	-
86	11	Front porch columns are not properly protected		-	ea		-	-
87	12	Roof scuppers are inadequately flashed, water staining.		-	ea		-	-
88	13	Sheet metal downspouts are missing	New Gutters	12	loc	$200.24	2,402.88	3,524.47
89	14	Downspout brackets are not adequately secured		-	loc		-	-
90	15	Flashing between the shingle and HardiPlank inadequate		681	lf	$29.28	19,941.55	29,249.65
91	16	Flashing between the panel and HardiPlank siding is missing		364	lf	$30.08	10,949.42	16,060.26
92	17	Flashing between the siding and the stone is inadequate		466	lf	$17.48	8,147.30	11,950.21
93	18	Flashing between the siding and the brick is inadequate	see K17	-	lf		-	-
94	19	Sheet metal flashings are rusting		-	lf		-	-
95	20	Sheet metal flashings are poorly installed or missing		-	lf		-	-
96	21	Some gutters reverse sloped		-	loc		-	-
97	**L**	**Sealant Joints**					-	-
98	1	Sealant joints with closed-cell backer rods are missing		-	lf		-	-
99	2	Adhesion of filet-shaped sealant joints has failed		-	lf		-	-
100	3	Sealant joints are missing between stone and wood trim	See C	-	lf		-	-
101	4	Sealant joints are missing between brick and wood trim	See C	-	lf		-	-
102	5	Sealant joints are inadequate at other locations			lf		-	-
103	**M**	**Vinyl Windows**		15	ea	$1,169.96	17,549.46	25,741.00
104	1	Wood framing is damaged around the windows		-	ea		-	-
105	2	Vinyl windows were not installed per industry standards		-	ea		-	-
106	3	Correct fasteners were not used to install the vinyl windows		-	ea		-	-
107	4	Most vinyl windows were installed without flexible flashing		-	ea		-	-
108	5	Flexible flashing was not properly lapped with window head		-	ea		-	-
109	6	Flexible flashing was not properly lapped with building paper		-	ea		-	-
110	7	Sealant was not installed under vinyl window nailing fins		-	ea		-	-
111	8	Building paper was lapped over the window sill nailing fin		-	ea		-	-
112	9	Many vinyl windows have broken nailing fins		-	ea		-	-
113	10	Some interior windows slightly racked or have bowed jambs		-	ea		-	-
114	11	Stains from water intrusion at window sills.		-	ea		-	-
115	12	Windows installed in shingle / shake siding have sills which hold water against the windows.		-	ea		-	-

Cuban's Manor v Doc Jones Builders

Estimate Summary - Complete

#	Issue	Description	Notes	Qty.	Unit	Direct Cost Unit	Direct Cost Total	Project Cost Total
116	**N**	**Vinyl Sliding Glass Doors**		10	ea	$1,495.92	14,959.20	21,941.69
117	1	Wood framing is damaged around the sliding glass doors		-	ea		-	-
118	2	Sliding glass doors were not installed per industry standards		-	ea		-	-
119	3	Correct fasteners not used to install the sliding glass doors		-	ea		-	-
120	4	Most sliding glass doors installed without flexible flashing		-	ea		-	-
121	5	Sealant not installed under sliding glass door nailing fins		-	ea		-	-
122	6	Many sliding glass doors have broken nailing fins		-	ea		-	-
123	7	Sheet metal sill pans missing under the sliding glass doors		-	ea		-	-
124	8	Sliding glass doors installed on top of vertical panel siding		-	ea		-	-
125	9	Sliding glass door sill nailing fins were removed		-	ea		-	-
126	10	Some interior SGDs slightly racked / bowed jambs		-	ea		-	-
127	11	Stains from water intrusion at door sills.					-	-
128	**O**	**Paint**		84,310	sf	$1.75	147,542.50	216,410.73
129	1	The paint has failed at many locations					-	-
130	**P**	**Mechanical**					-	-
131	1	Rain drain piping is exposed and unburied		-	loc		-	-
132	2	Rain drain risers are unused and uncapped		1	allow	$500.00	500.00	733.38
133	3	Rain drain piping transition is broken	See P2	-	allow		-	-
134	4	Rain drain riser is improperly located		-	loc		-	-
135	5	Gas pipes enter the crawl space through the vent screen		12	loc	$60.08	720.96	1,057.48
136	6	Driveway is damaged at an unburied rain drain pipe		1	allow		1,000.00	1,466.77
137	7	Exhaust vents are damaged					-	-
138	8	Water meter vaults are poorly installed		-	loc		-	-
139	9	Dryer hoses with excessive bending		-	loc		-	-
140	10	Exterior vents for kitchen and bathroom fans incorrectly placed near intake locations such as windows or intake vents.					-	-
141	11	Uneven heating in multi-story units		5	unit	$400.00	2,000.00	2,933.54
142	12	Rooms with ventless fireplaces missing C.O. sensors			ea		-	-
143	13	Bathroom fans too small to handle volume of rooms	No Repair	-	loc		-	-
144	14	Whole-house fan missing @1 unit, problems in some units	1 loc. only	1	loc	$400.00	400.00	586.71
145	15	Some units with fireplace fan failures	Allowance	2	loc	$400.00	800.00	1,173.42
146	16	Some heating ducts improperly installed.	See P11	-	loc		-	-
147	17	Attic ventilation: Organic growth at underside of roof sheathing; poor ventilation. Insulation blocking venting.	Allowance	2	bldg	$170.24	340.48	499.41
148	**Q**	**Electrical**		20	bldg	$350.00	7,000.00	10,267.38
149	1	Hole for the electrical soffit light fixture is poorly cut			allow		-	-
150	2	Wiring penetrations through walls are unsealed			allow		-	-
151	3	Light fixture mounting blocks are broken			allow		-	-
152	4	Light fixtures are installed without mounting blocks			allow		-	-
153	5	Unused electrical wiring has not been removed					-	-
154	6	Telephone junction box is unsecured		1	allow	$42.56	42.56	62.43
155	**R**	**Gypsum Wallboard**					-	-
156	1	Minimal drywall cracking adjacent racked /bowed windows/ doors at several corners of the window/door sills and heads.	See D5	-			-	-
157	2	Drywall cracking at the first floor ceilings related to deficiently sized beam between the kitchen and living room.	See D5	-			-	-
158	3	Drywall cracking at the second floor above the deficiently sized beam between the kitchen and living room.	See D5	-			-	-
159	**S**	**Doors**					-	-
160	1	Door racking in relation to beam deflection.	See D5	-	loc		-	-
161	2	Garage doors not closing fully, leaving gap at bottom of door	Allowance	1	loc	$100.12	100.12	146.85

Cuban's Manor v Doc Jones Builders

Estimate Summary - Complete

#	Issue	Description	Notes	Qty.	Unit	Direct Cost Unit	Direct Cost Total	Project Cost Total
162	**T**	**Plumbing**		47	units	$500.00	23,500.00	34,469.07
163	1	Dishwasher air gap receptacle at sink is loose	See T				-	-
164	2	Angle stops under kitchen sink loose	See T				-	-
165	3	Angle stops under bathroom sinks loose	See T				-	-
166	4	Tub spout loose below mixer valve or missing caulking	See T				-	-
167	5	Shower head loose	See T				-	-
168	6	Water heaters without containment tubs or trays present	See T				-	-
169	7	Water heaters missing drain line to exterior of building	See T				-	-
170	8	Water heaters missing expansion tanks or placed incorrectly	See T				-	-
171	9	"Water Hammer" @ kitchen faucets req. water suppression	See T				-	-
172	10	Water heater pressure reduction valve does not drain to EXT	See T				-	-
173								
174		**Direct Cost Total**					$518,816.40	$760,983.70
175								
176		General Conditions		8.0%			$41,505.31	
177		Subtotal					$560,321.71	
178								
179		Contractor's Overhead		8%			$44,825.74	
180		Contractor's Profit		10%			$56,032.17	
181		Insurance & Bond		2%			$11,206.43	
182								
183		Subtotal					$672,386.06	
184		Contingency on Estimated Construction Costs		5%			$33,619.30	
185		**Total Estimated Construction Costs**					$706,005.36	
186								
187		**Other Project Costs:**						
188		Construction Management		5%	ls		$35,300.27	
189		Architecture/Design		1	ls		$10,000.00	
190		Structural Engineering		0			$0.00	
191		Geotechnical Engineering		0			$0.00	
192		Testing & Inspection		0			$0.00	
193		Permits & Fees		1%			$7,060.05	
194		Relocation		0			$0.00	
195								
196		Subtotal of Other Project Costs					$52,360.32	
197		Contingency on Other Project Costs		5%			$2,618.02	
198		**Total of Other Project Costs**					$54,978.34	
199								
200		**Total Estimated Project Cost**					**$760,983.70**	**$760,983.70**

Cuban's Manor v Doc Jones Builders

Estimate Details

Line	CSI	Description	Notes / Ref.	Qty	Unit	Crew	Hrs	Unit Cost Labor	Unit Cost Material	Unit Cost Other	Unit Cost Subc.	Direct Cost Labor	Direct Cost Material	Direct Cost Other	Direct Cost Subc.	Total Cost	Total Item
1												-	-	-	-	$0.00	
2	**A**	**Grading and Landscaping**										-	-	-	-	$0.00	$0.00
3												-	-	-	-	$0.00	
4	1	Grading next to the buildings does not allow for proper drainage		3	loc							-	-	-	-	$0.00	$1,322.63
5	a	Mobilize		1	loc	SW4	1	55.16		100.00		55	-	100	-	$155.16	
6	b	Remove and store planting		1	loc	SW4	1	55.16				55	-	-	-	$55.16	
7	c	Regrade area to accommodate drainage		1	loc	SW4	2	110.33				110	-	-	-	$110.33	
8	d	Re-install planting		1	loc	SW4	2	110.33	100.00			110	100	-	-	$210.33	
9	e	Repair irrigation as necessary		1	loc	SW4	1	55.16	10.00			55	10	-	-	$65.16	
10	f	Clean Up		1	loc	SW4	1	55.16	10.00			55	10	-	-	$65.16	
11												-	-	-	-	$0.00	
12		Additional Location		1	loc						661.32	-	-	-	661	$661.32	
13												-	-	-	-	$0.00	
14	2	Construction debris has not been removed from the site		0	ea							-	-	-	-	$0.00	$0.00
15												-	-	-	-	$0.00	
16	3	Construction silt fence has not been removed from the site										-	-	-	-	$0.00	$0.00
17												-	-	-	-	$0.00	
18	4	Debris has not been removed from the rain drain piping		0	ea							-	-	-	-	$0.00	$0.00
19												-	-	-	-	$0.00	
20	5	Wood fence boards are buried in the ground		0	ea							-	-	-	-	$0.00	$0.00
21												-	-	-	-	$0.00	
22	6	Crawl space ventilation. Moist soil below vapor barrier.										-	-	-	-	$0.00	$0.00
23												-	-	-	-	$0.00	
24	**B**	**Concrete Walks and Patios**			allow							-	-	-	-	$0.00	$0.00
25												-	-	-	-	$0.00	
26	1	The top surfaces of the concrete walks and concrete porches are too high		0	sf							-	-	-	-	$0.00	$0.00
27												-	-	-	-	$0.00	
28	2	The concrete walks and concrete porches at some of the units were placed after the siding was installed embedding the siding and trim in the concrete		0	sf							-	-	-	-	$0.00	$0.00
29												-	-	-	-	$0.00	
30	3	Concrete forms have been left in place		0	loc							-	-	-	-	$0.00	$0.00
31												-	-	-	-	$0.00	
32	4	Concrete wall form ties have been left in place		1	ls	RC3	8	300.48	100.00			300	100	-	-	$400.48	$400.48
33												-	-	-	-	$0.00	
34	5	Concrete crack control joints are inadequate										-	-	-	-	$0.00	$8,059.16
35		Remove & replace concrete drive (assume 15' x 75')	BTWN BLDG E&B	22	yds	C3	40	226.33	120.00	20.00		4,979	2,640	440	-	$8,059.16	
36												-	-	-	-	$0.00	
37	**C**	**Stone and Brick Cladding**										-	-	-	-	$0.00	$0.00
38												-	-	-	-	$0.00	
39	1	The stone cladding does not have proper weep provisions		0	sf							-	-	-	-	$0.00	$0.00
40												-	-	-	-	$0.00	
41	2	The brick cladding does not have proper weep provisions		0	sf							-	-	-	-	$0.00	$0.00
42												-	-	-	-	$0.00	
43	3	The stone cladding is damaged	Also see FLSG	10	loc							-	-	-	-	$0.00	$3,704.80
44		This is to make minor repairs and to transition to dissimilar materials										-	-	-	-	$0.00	
45	a	Mobilize		1	loc	RC3	0.5	18.78	5.00			19	5	-	-	$23.78	
46	b	Remove damaged mortar and discard		1	loc	RC3	1.0	37.56	0.00	5.00		38	-	5	-	$42.56	
47	c	Prepare and prime adjacent materials (like wood trim)		1	loc	RC3	1.5	56.34	15.00			56	15	-	-	$71.34	
48	d	Re-grout as necessary		1	loc	RC3	1.5	56.34	10.00			56	10	-	-	$66.34	
49	e	Install backer-rod and sealant		1	loc	RC3	1.0	37.56	10.00			38	10	-	-	$47.56	
50	f	Paint area to match		1	loc	RC3	2.0	75.12	20.00			75	20	-	-	$95.12	
51	g	Clean Up		1	loc	RC3	0.5	18.78	5.00			19	5	-	-	$23.78	
52												-	-	-	-	$0.00	

Cuban's Manor v Doc Jones Builders

Estimate Details

								Unit Cost				Direct Cost				Total	Total
Line	CSI	Description	Notes / Ref.	Qty	Unit	Crew	Hrs	Labor	Material	Other	Subc.	Labor	Material	Other	Subc.	Cost	Item
53		Additional Locations		9	loc						370.48	-	-	-	3,334	$3,334.32	
54												-	-	-	-	$0.00	
55	4	Mortar droppings are not cleaned up		1	loc	RC3	8	300.48	100.00			300	100	-	-	$400.48	$400.48
56												-	-	-	-	$0.00	
57	5	Brick caps are not sloped enough to shed water	See FLSG	0	loc							-	-	-	-	$0.00	$0.00
58												-	-	-	-	$0.00	
59	**D**	**Wood Framing**										-	-	-	-	$0.00	$0.00
60												-	-	-	-	$0.00	
61	1	Moisture intrusion behind the cladding has caused framing damage		0	allow							-	-	-	-	$0.00	$10,214.40
62	a	Framing repairs below lap siding	4 HR/BLDG	20	bldg	RC3	80.0	150.24	20.00			3,005	400	-	-	$3,404.80	
63	b	Framing repairs below panelized shingle siding	4 HR/BLDG	20	bldg	RC3	80.0	150.24	20.00			3,005	400	-	-	$3,404.80	
64	c	Framing repairs below vertical panel siding	4 HR/BLDG	20	bldg	RC3	80.0	150.24	20.00			3,005	400	-	-	$3,404.80	
65												-	-	-	-	$0.00	
66	2	Wood sheathing is not installed under the window nailing fins										-	-	-	-	$0.00	$0.00
67												-	-	-	-	$0.00	
68	3	Wood framing is not installed in a workmanlike manner	Sagging Roof	1	loc							-	-	-	-	$0.00	$1,281.12
69	a	Mobilize		1	loc	RC1&3	1	58.82	10.00			59	10	-	-	$68.82	
70	b	Demolition (Roofing, Sheathing)		1	loc	RC1&3	2	117.64		100.00		118	-	100	-	$217.64	
71	c	Install additional structural members		1	loc	RC1&3	1	58.82	50.00			59	50	-	-	$108.82	
72	d	Install new sheathing	2 sheets	1	loc	RC1&3	3	176.46	50.00			176	50	-	-	$226.46	
73	e	Replace roofing material		1	loc	SUB@75	8	470.56	100.00			471	100	-	-	$570.56	
74	f	Clean Up		1	loc	RC1&3	1	58.82	10.00	20.00		59	10	20	-	$88.82	
75												-	-	-	-	$0.00	
76	4	Wood blocking between joists are missing		1	allow					1,000.00		-	-	1,000	-	$1,000.00	$1,000.00
77												-	-	-	-	$0.00	
78	5	Beam between kitchen and living room deficiently sized resulting in excessive deflection from dead//live loads.		12	ea							-	-	-	-	$0.00	$62,625.60
79	a	Mobilize	Protect	1	ls	RC4	2	155.44	50.00	100.00		155	50	100	-	$305.44	
80	b	Demolition (GWB)		1	ls	RC4	3	233.16		100.00		233	-	100	-	$333.16	
81	c	Shoring		20	lf	RC4	3	11.66	10.00	5.00		233	200	100	-	$533.16	
82	d	Removing existing structural member		20	lf	RC4	2	7.77		5.00		155	-	100	-	$255.44	
83	e	Replace existing structural member with new		20	lf	RC4	6	23.32	40.00			466	800	-	-	$1,266.32	
84	f	Repair racking doors above this area		1	ls	RC4	4	310.88	50.00			311	50	-	-	$360.88	
85	g	Replace GWB at 1st floor		200	sf	RC4	4	1.55	1.00	0.40		311	200	80	-	$590.88	
86	h	GWB repairs at second floor		25	sf	RC4	2	6.22	1.00	0.40		155	25	10	-	$190.44	
87	i	Paint at 1st floor repairs		700	sf	RC4	8	0.89	0.20	0.10		622	140	70	-	$831.76	
88	j	Paint at 2nd floor repairs	Including casing	250	sf	RC4	4	1.24	0.20	0.10		311	50	25	-	$385.88	
89	k	Clean Up		1	ls	RC4	2	155.44	10.00			155	10	-	-	$165.44	
90		Remaining Units	Sum of A-K	11	loc					5,218.80		-	-	57,407	-	$57,406.80	
91												-	-	-	-	$0.00	
92	6	4x4 post missing below beam between kitchen and living room.	See D5									-	-	-	-	$0.00	$0.00
93												-	-	-	-	$0.00	
94	**E**	**Exterior Wood Defects**										-	-	-	-	$0.00	$0.00
95												-	-	-	-	$0.00	
96	1	Wood posts at the porches are embedded in the concrete		1	loc	SUB						-	-	-	-	$0.00	$738.74
97		Replace 10x10 concrete driveway panel	2 yards @ 6"	2	yds	C2	8	229.37	120.00	20.00		459	240	40	-	$738.74	
98												-	-	-	-	$0.00	
99	2	Wood deck steps are damaged		4	loc	RC3	16	150.24	25.00			601	100	-	-	$700.96	$700.96
100												-	-	-	-	$0.00	
101												-	-	-	-	$0.00	
102	3	Wood deck posts are not attached to the footing										-	-	-	-	$0.00	$0.00
103												-	-	-	-	$0.00	

Cuban's Manor v Doc Jones Builders

Estimate Details

								Unit Cost				Direct Cost				Total	Total
Line	CSI	Description	Notes / Ref.	Qty	Unit	Crew	Hrs	Labor	Material	Other	Subc.	Labor	Material	Other	Subc.	Cost	Item
104	4	Wood stair stringers are in contact with concrete walks			ea							-	-	-	-	$0.00	$0.00
105												-	-	-	-	$0.00	
106	**F**	**Exterior Wood Trim**			lf							-	-	-	-	$0.00	$0.00
107												-	-	-	-	$0.00	
108	1	The garage door jambs are in contact with the concrete driveways		0	ea							-	-	-	-	$0.00	$0.00
109												-	-	-	-	$0.00	
110	2	The wood trim at the porch columns is in contact with the concrete		5	ea	RC3	30	225.36	100.00			1,127	500	-	-	$1,626.80	$1,626.80
111		Assume 6 HR per location										-	-	-	-	$0.00	
112												-	-	-	-	$0.00	
113	3	Exterior wood trim is damaged and must be replaced	4 HR/LOC	5	loc	RC3	20	150.24	25.00			751	125	-	-	$876.20	$876.20
114												-	-	-	-	$0.00	
115	4	Visible roof overhang plywood is of a poor grade										-	-	-	-	$0.00	$0.00
116												-	-	-	-	$0.00	
117	5	Mushrooms are growing behind the exterior wood trim										-	-	-	-	$0.00	$0.00
118												-	-	-	-	$0.00	
119	6	Column trim is installed without slope										-	-	-	-	$0.00	$0.00
120												-	-	-	-	$0.00	
121	7	Window trim is incorrectly installed										-	-	-	-	$0.00	$0.00
122												-	-	-	-	$0.00	
123	8	Porch soffits are unvented			lf							-	-	-	-	$0.00	$0.00
124												-	-	-	-	$0.00	
125	9	Flat wood trim detail at columns not directing water away from wood										-	-	-	-	$0.00	$0.00
126												-	-	-	-	$0.00	
127	**G**	**HardiPlank Lap Siding**										-	-	-	-	$0.00	$0.00
128												-	-	-	-	$0.00	
129	1	There is serious damage at the HardiPlank lap siding			sf							-	-	-	-	$0.00	$550.00
130		This includes flashing and WRB installation in (M=FLSG&WRB Material)										-	-	-	-	$0.00	
131	1	Building A	2 Units	100	sf				0.50		5.00	-	50	-	500	$550.00	
132	2	Building B	2 Units		sf				0.50		5.00	-	-	-	-	$0.00	
133	3	Building C	1 Unit		sf				0.50		5.00	-	-	-	-	$0.00	
134	4	Building D	1 Unit		sf				0.50		5.00	-	-	-	-	$0.00	
135	5	Building E	3 Units		sf				0.50		5.00	-	-	-	-	$0.00	
136	6	Building F	4 Units		sf				0.50		5.00	-	-	-	-	$0.00	
137	7	Building G	4 Units		sf				0.50		5.00	-	-	-	-	$0.00	
138	8	Building H	4 Units		sf				0.50		5.00	-	-	-	-	$0.00	
139	9	Building I	2 Units		sf				0.50		5.00	-	-	-	-	$0.00	
140	10	Building J	2 Units		sf				0.50		5.00	-	-	-	-	$0.00	
141	11	Building K	2 Units		sf				0.50		5.00	-	-	-	-	$0.00	
142	12	Building L	2 Units		sf				0.50		5.00	-	-	-	-	$0.00	
143	13	Building M	2 Units		sf				0.50		5.00	-	-	-	-	$0.00	
144	14	Building N	3 Units		sf				0.50		5.00	-	-	-	-	$0.00	
145	15	Building O	2 Units		sf				0.50		5.00	-	-	-	-	$0.00	
146	16	Building P	2 Units		sf				0.50		5.00	-	-	-	-	$0.00	
147	17	Building Q	2 Units		sf				0.50		5.00	-	-	-	-	$0.00	
148	18	Building R	2 Units		sf				0.50		5.00	-	-	-	-	$0.00	
149	19	Building S	2 Units		sf				0.50		5.00	-	-	-	-	$0.00	
150	20	Building T	3 Units		sf				0.50		5.00	-	-	-	-	$0.00	
151		Total All Buildings		100								-	-	-	-	$0.00	
152												-	-	-	-	$0.00	
153												-	-	-	-	$0.00	
154	2	Building paper is improperly lapped under HardiPlank lap siding										-	-	-	-	$0.00	$0.00

Cuban's Manor v Doc Jones Builders

Estimate Details

Line	CSI	Description	Notes / Ref.	Qty	Unit	Crew	Hrs	Unit Cost				Direct Cost				Total Cost	Total Item
								Labor	Material	Other	Subc.	Labor	Material	Other	Subc.		
155												-	-	-	-	$0.00	
156	3	Building paper is missing under the HardiPlank lap siding										-	-	-	-	$0.00	$0.00
157												-	-	-	-	$0.00	
158	4	Building paper is visible below the HardiPlank lap siding										-	-	-	-	$0.00	$0.00
159												-	-	-	-	$0.00	
160	5	HardiPlank lap siding is installed with excessive lap										-	-	-	-	$0.00	$0.00
161												-	-	-	-	$0.00	
162	6	HardiPlank lap siding is not installed in a workman-like manner										-	-	-	-	$0.00	$0.00
163												-	-	-	-	$0.00	
164	7	HardiPlank lap siding is closer than two-inches to concrete surfaces										-	-	-	-	$0.00	$0.00
165												-	-	-	-	$0.00	
166	8	HardiPlank lap siding is closer than six-inches to soil surfaces										-	-	-	-	$0.00	$0.00
167												-	-	-	-	$0.00	
168	9	HardiPlank lap siding is closer than two-inches to roof surfaces										-	-	-	-	$0.00	$0.00
169												-	-	-	-	$0.00	
170	10	HardiPlank lap siding is damaged										-	-	-	-	$0.00	$0.00
171												-	-	-	-	$0.00	
172	11	HardiPlank lap siding fasteners are installed through window nailing fins										-	-	-	-	$0.00	$0.00
173												-	-	-	-	$0.00	
174	12	Nails pulling out of siding.										-	-	-	-	$0.00	$0.00
175												-	-	-	-	$0.00	
176	13	Siding at windows over-cut and not caulked.										-	-	-	-	$0.00	$0.00
177												-	-	-	-	$0.00	
178	14	HardiPlank lap siding insufficiently caulked										-	-	-	-	$0.00	$0.00
179												-	-	-	-	$0.00	
180	15	Transitions from horizontal to vertical siding does not meet industry standards, possible source of water intrusion.										-	-	-	-	$0.00	$0.00
181												-	-	-	-	$0.00	
182	**H**	**Panelized Shingle Siding**										-	-	-	-	$0.00	$0.00
183												-	-	-	-	$0.00	
184	1	Building paper is missing under the shingle siding			sf							-	-	-	-	$0.00	$2,205.00
185		This includes flashing and WRB installation in (M=FLSG&WRB Material)										-	-	-	-	$0.00	
186	1	Building A	2 Units	210	sf				0.50		10.00	-	105	-	2,100	$2,205.00	
187	2	Building B	2 Units		sf				0.50		10.00	-	-	-	-	$0.00	
188	3	Building C	1 Unit		sf				0.50		10.00	-	-	-	-	$0.00	
189	4	Building D	1 Unit		sf				0.50		10.00	-	-	-	-	$0.00	
190	5	Building E	3 Units		sf				0.50		10.00	-	-	-	-	$0.00	
191	6	Building F	4 Units		sf				0.50		10.00	-	-	-	-	$0.00	
192	7	Building G	4 Units		sf				0.50		10.00	-	-	-	-	$0.00	
193	8	Building H	4 Units		sf				0.50		10.00	-	-	-	-	$0.00	
194	9	Building I	2 Units		sf				0.50		10.00	-	-	-	-	$0.00	
195	10	Building J	2 Units		sf				0.50		10.00	-	-	-	-	$0.00	
196	11	Building K	2 Units		sf				0.50		10.00	-	-	-	-	$0.00	
197	12	Building L	2 Units		sf				0.50		10.00	-	-	-	-	$0.00	
198	13	Building M	2 Units		sf				0.50		10.00	-	-	-	-	$0.00	
199	14	Building N	3 Units		sf				0.50		10.00	-	-	-	-	$0.00	
200	15	Building O	2 Units		sf				0.50		10.00	-	-	-	-	$0.00	
201	16	Building P	2 Units		sf				0.50		10.00	-	-	-	-	$0.00	
202	17	Building Q	2 Units		sf				0.50		10.00	-	-	-	-	$0.00	
203	18	Building R	2 Units		sf				0.50		10.00	-	-	-	-	$0.00	
204	19	Building S	2 Units		sf				0.50		10.00	-	-	-	-	$0.00	

Cuban's Manor v Doc Jones Builders

Estimate Details

								Unit Cost				Direct Cost				Total	Total
Line	CSI	Description	Notes / Ref.	Qty	Unit	Crew	Hrs	Labor	Material	Other	Subc.	Labor	Material	Other	Subc.	Cost	Item
205	20	Building T	3 Units		sf				0.50		10.00	-	-	-	-	$0.00	
206		Total All Buildings		210								-	-	-	-	$0.00	
207												-	-	-	-	$0.00	
208												-	-	-	-	$0.00	
209	2	Shingle siding is improperly fastened	See H									-	-	-	-	$0.00	$0.00
210												-	-	-	-	$0.00	
211	3	Shingles are missing from the panelized shingle siding	See H									-	-	-	-	$0.00	$0.00
212												-	-	-	-	$0.00	
213	4	Shingle / shake siding with water staining	See H									-	-	-	-	$0.00	$0.00
214												-	-	-	-	$0.00	
215	5	Siding at windows over-cut and not caulked.	See H									-	-	-	-	$0.00	$0.00
216												-	-	-	-	$0.00	
217	**I**	**Vertical Panel Siding**			sf							-	-	-	-	$0.00	$73,656.00
218		This includes flashing and WRB installation in (M=FLSG&WRB Material)										-	-	-	-	$0.00	
219	1	Building A	2 Units	792	sf				0.50		5.00	-	396	-	3,960	$4,356.00	
220	2	Building B	2 Units	468	sf				0.50		5.00	-	234	-	2,340	$2,574.00	
221	3	Building C	1 Unit	612	sf				0.50		5.00	-	306	-	3,060	$3,366.00	
222	4	Building D	1 Unit	612	sf				0.50		5.00	-	306	-	3,060	$3,366.00	
223	5	Building E	3 Units	864	sf				0.50		5.00	-	432	-	4,320	$4,752.00	
224	6	Building F	4 Units	1296	sf				0.50		5.00	-	648	-	6,480	$7,128.00	
225	7	Building G	4 Units	1900	sf				0.50		5.00	-	950	-	9,500	$10,450.00	
226	8	Building H	4 Units	144	sf				0.50		5.00	-	72	-	720	$792.00	
227	9	Building I	2 Units	1064	sf				0.50		5.00	-	532	-	5,320	$5,852.00	
228	10	Building J	2 Units	36	sf				0.50		5.00	-	18	-	180	$198.00	
229	11	Building K	2 Units	108	sf				0.50		5.00	-	54	-	540	$594.00	
230	12	Building L	2 Units	72	sf				0.50		5.00	-	36	-	360	$396.00	
231	13	Building M	2 Units	144	sf				0.50		5.00	-	72	-	720	$792.00	
232	14	Building N	3 Units	216	sf				0.50		5.00	-	108	-	1,080	$1,188.00	
233	15	Building O	2 Units	720	sf				0.50		5.00	-	360	-	3,600	$3,960.00	
234	16	Building P	2 Units	792	sf				0.50		5.00	-	396	-	3,960	$4,356.00	
235	17	Building Q	2 Units	1116	sf				0.50		5.00	-	558	-	5,580	$6,138.00	
236	18	Building R	2 Units	600	sf				0.50		5.00	-	300	-	3,000	$3,300.00	
237	19	Building S	2 Units	720	sf				0.50		5.00	-	360	-	3,600	$3,960.00	
238	20	Building T	3 Units	1116	sf				0.50		5.00	-	558	-	5,580	$6,138.00	
239		Total All Buildings		13,392								-	-	-	-	$0.00	
240												-	-	-	-	$0.00	
241												-	-	-	-	$0.00	
242												-	-	-	-	$0.00	
243	1	Wood framing is moisture damaged behind the panel siding										-	-	-	-	$0.00	$0.00
244												-	-	-	-	$0.00	
245	2	Building paper is missing behind the vertical panel siding										-	-	-	-	$0.00	$0.00
246												-	-	-	-	$0.00	
247	3	Vertical panel siding is not installed in a workman-like manner										-	-	-	-	$0.00	$0.00
248												-	-	-	-	$0.00	
249	4	Vertical panel siding is installed closer than two-inches to concrete										-	-	-	-	$0.00	$0.00
250												-	-	-	-	$0.00	
251	5	Vertical panel siding is installed closer than six-inches to soil										-	-	-	-	$0.00	$0.00
252												-	-	-	-	$0.00	
253	6	Nails pulling out of siding.										-	-	-	-	$0.00	$0.00
254												-	-	-	-	$0.00	
255	7	Siding at windows over-cut and not caulked.										-	-	-	-	$0.00	$0.00
256												-	-	-	-	$0.00	

Cuban's Manor v Doc Jones Builders

Estimate Details

Line	CSI	Description	Notes / Ref.	Qty	Unit	Crew	Hrs	Unit Cost Labor	Unit Cost Material	Unit Cost Other	Unit Cost Subc.	Direct Cost Labor	Direct Cost Material	Direct Cost Other	Direct Cost Subc.	Total Cost	Total Item
257	8	Transitions from horizontal to vertical siding does not meet industry standards, possible source of water intrusion.										-	-	-	-	$0.00	$0.00
258												-	-	-	-	$0.00	
259	**J**	**Roofs**										-	-	-	-	$0.00	$0.00
260												-	-	-	-	$0.00	
261	1	Framing design is inadequate at the front entries			allow							-	-	-	-	$0.00	$17,408.72
262	1	Building A	2 Units	0	loc							-	-	-	-	$0.00	
263	2	Building B	2 Units	0	loc							-	-	-	-	$0.00	
264	3	Building C	1 Unit	0	loc							-	-	-	-	$0.00	
265	4	Building D	1 Unit	0	loc							-	-	-	-	$0.00	
266	5	Building E	3 Units	1	loc							-	-	-	-	$0.00	
267	6	Building F	4 Units	2	loc							-	-	-	-	$0.00	
268	7	Building G	4 Units	2	loc							-	-	-	-	$0.00	
269	8	Building H	4 Units	0	loc							-	-	-	-	$0.00	
270	9	Building I	2 Units	2	loc							-	-	-	-	$0.00	
271	10	Building J	2 Units	0	loc							-	-	-	-	$0.00	
272	11	Building K	2 Units	0	loc							-	-	-	-	$0.00	
273	12	Building L	2 Units	2	loc							-	-	-	-	$0.00	
274	13	Building M	2 Units	2	loc							-	-	-	-	$0.00	
275	14	Building N	3 Units	1	loc							-	-	-	-	$0.00	
276	15	Building O	2 Units	0	loc							-	-	-	-	$0.00	
277	16	Building P	2 Units	0	loc							-	-	-	-	$0.00	
278	17	Building Q	2 Units	0	loc							-	-	-	-	$0.00	
279	18	Building R	2 Units	0	loc							-	-	-	-	$0.00	
280	19	Building S	2 Units	0	loc							-	-	-	-	$0.00	
281	20	Building T	3 Units	1	loc							-	-	-	-	$0.00	
282		Total All Buildings		13	loc							-	-	-	-	$0.00	
283												-	-	-	-	$0.00	
284		Repair 1 location complete										-	-	-	-	$0.00	
285	a	Mobilize		1	loc	RC1&3	1	58.82	10.00	20.00		59	10	20	-	$88.82	
286	b	Demolition (Roofing, Sheathing, Flashing, Trim)		1	loc	RC1&3	2	117.64		20.00		118	-	20	-	$137.64	
287	c	Repair damaged framing, sheathing and trim		1	loc	RC1&3	2	117.64	30.00			118	30	-	-	$147.64	
288	d	Install custom sheet metal saddle		1	loc	RC1&3	2	117.64	200.00			118	200	-	-	$317.64	
289	e	Install other flashings		1	loc	SUB@75	2	117.64	20.00			118	20	-	-	$137.64	
290	f	Install siding		1	loc	RC1&3	2	117.64	50.00			118	50	-	-	$167.64	
291	g	Replace roofing material		1	loc	RC1&3	2	117.64	50.00			118	50	-	-	$167.64	
292	h	Paint to match		1	loc	RC1&3	2	117.64	50.00			118	50	-	-	$167.64	
293	i	Clean Up		1	loc	RC1&3	1	58.82	10.00	20.00		59	10	20	-	$88.82	
294		Remaining Locations		12						1,332.30		-	-	15,988	-	$15,987.60	
295												-	-	-	-	$0.00	
296	**K**	**Sheet Metal Flashing / Gutters**			lf							-	-	-	-	$0.00	$0.00
297												-	-	-	-	$0.00	
298	1	Sheet metal flashings are improperly lapped with building paper										-	-	-	-	$0.00	$0.00
299												-	-	-	-	$0.00	
300	2	Sheet metal kick-out and diverter flashings are missing or inadequate										-	-	-	-	$0.00	$0.00
301												-	-	-	-	$0.00	
302	3	Sheet metal window head flashings are missing		165	ea					446.68		-	-	73,702	-	$73,702.20	$74,148.88
303		This total number of locations includes SGDs										-	-	-	-	$0.00	
304	a	Mobilize		1	ls	RC1&3	0.2	11.76	2.00			12	2	-	-	$13.76	
305	b	Remove existing trim		18	lf	RC1&3	0.2	0.65		0.10		12	-	2	-	$13.56	
306	c	Siding removal and storage		1	ls	RC1&3	0.5	29.41		0.10		29	-	0	-	$29.51	
307	d	Flash with peel & stick flexible flashing - integrate w- WRB	TYP: 5'x4' WDO	26	lf	RC1&3	0.4	0.90	1.00			24	26	-	-	$49.53	
308	e	Cut new trim to length		26	lf	RC1&3	0.2	0.45	2.00			12	52	-	-	$63.76	

Cuban's Manor v Doc Jones Builders

Estimate Details

								Unit Cost				Direct Cost				Total	Total
Line	CSI	Description	Notes / Ref.	Qty	Unit	Crew	Hrs	Labor	Material	Other	Subc.	Labor	Material	Other	Subc.	Cost	Item
309	f	Pre-prime new trim on all 6 sides		26	lf	RC1&3	0.4	0.90	0.25			24	7	-	-	$30.03	
310	g	Install new trim		26	lf	RC1&3	0.5	1.13	2.00			29	52	-	-	$81.41	
311	h	Install new rigid head flashing and integrate w- WRB		5	lf	RC1&3	0.3	3.53	5.00			18	25	-	-	$42.65	
312	i	Re-install existing siding (replace T1-11 - see Siding section)	See Siding	1	ls	RC1&3	1	58.82	20.00			59	20	-	-	$78.82	
313	j	Install backer rod and sealant		26	lf	RC1&3	0.3	0.68	1.00			18	26	-	-	$43.65	
314	k	Paint to match	See Painting	1	ls							-	-	-	-	$0.00	
315					ea							-	-	-	-	$0.00	
316	4	Sheet metal entry door head flashings are missing			lf							-	-	-	-	$0.00	$0.00
317												-	-	-	-	$0.00	
318	5	Sheet metal garage door head flashings are missing			lf							-	-	-	-	$0.00	$0.00
319												-	-	-	-	$0.00	
320	6	Sheet metal wall exhaust vent head flashings are missing			ea							-	-	-	-	$0.00	$0.00
321												-	-	-	-	$0.00	
322	7	Sheet metal head flashings at wall penetrations are missing			ea							-	-	-	-	$0.00	$0.00
323												-	-	-	-	$0.00	
324	8	Sheet metal door sill pans under entry doors are missing			ea							-	-	-	-	$0.00	$0.00
325												-	-	-	-	$0.00	
326	9	Sheet metal door sill pans under sliding glass doors are missing			ea							-	-	-	-	$0.00	$0.00
327												-	-	-	-	$0.00	
328	10	Sheet metal flashings at deck divider walls are missing			ea / lf							-	-	-	-	$0.00	$0.00
329												-	-	-	-	$0.00	
330	11	Front porch columns are not properly protected			ea							-	-	-	-	$0.00	$0.00
331												-	-	-	-	$0.00	
332	12	Roof scuppers are inadequately flashed, water staining.			ea							-	-	-	-	$0.00	$0.00
333												-	-	-	-	$0.00	
334	13	Sheet metal downspouts are missing			lf							-	-	-	-	$0.00	$2,402.88
335		Add gutter and connect to down-spout above R & L elevation entry doors.		12	loc	RC3	48	150.24	50.00			1,803	600	-	-	$2,402.88	
336		Only Phase I. Changed condition in Phase II.															
338												-	-	-	-	$0.00	
339	14	Downspout brackets are not adequately secured										-	-	-	-	$0.00	$0.00
340												-	-	-	-	$0.00	
341	15	Flashing between the shingle and HardiPlank siding is inadequate	9 total LOC		lf							-	-	-	-	$0.00	$19,941.55
342	1	Building A		40	lf						28.37	-	-	-	1,135	$1,134.65	
343	2	Building B		60	lf						28.37	-	-	-	1,702	$1,701.98	
344	3	Building C		20	lf						28.37	-	-	-	567	$567.33	
345	4	Building D		20	lf						28.37	-	-	-	567	$567.33	
346	5	Building E		65	lf						28.37	-	-	-	1,844	$1,843.81	
347	6	Building F		64	lf						28.37	-	-	-	1,815	$1,815.45	
348	7	Building G	0 LOC	0	lf						28.37	-	-	-	-	$0.00	
349	8	Building H		24	lf						28.37	-	-	-	681	$680.79	
350	9	Building I		24	lf						28.37	-	-	-	681	$680.79	
351	10	Building J		0	lf						28.37	-	-	-	-	$0.00	
352	11	Building K		24	lf						28.37	-	-	-	681	$680.79	
353	12	Building L		0	lf						28.37	-	-	-	-	$0.00	
354	13	Building M		0	lf						28.37	-	-	-	-	$0.00	
355	14	Building N		65	lf						28.37	-	-	-	1,844	$1,843.81	
356	15	Building O		40	lf						28.37	-	-	-	1,135	$1,134.65	
357	16	Building P		38	lf						28.37	-	-	-	1,078	$1,077.92	
358	17	Building Q		36	lf						28.37	-	-	-	1,021	$1,021.19	
359	18	Building R	3 LOC	60	lf						28.37	-	-	-	1,702	$1,701.98	
360	19	Building S		36	lf						28.37	-	-	-	1,021	$1,021.19	
361	20	Building T		65	lf						28.37	-	-	-	1,844	$1,843.81	
362		Total All Buildings		681								-	-	-	-	$0.00	

Cuban's Manor v Doc Jones Builders

Estimate Details

								Unit Cost				Direct Cost				Total	Total
Line	CSI	Description	Notes / Ref.	Qty	Unit	Crew	Hrs	Labor	Material	Other	Subc.	Labor	Material	Other	Subc.	Cost	Item
363	a	Mobilize	O=EQIP	1	ls	RC1&3	1	58.82		40.00		59	-	40	-	$98.82	
364	b	Remove siding and store		22	lf	RC1&3	2	5.35				118	-	-	-	$117.64	
365	c	Prepare and prime trim		22	lf	RC1&3	1.5	4.01	1.00	0.25		88	22	6	-	$115.73	
366	d	Install new rigid head flashing and integrate w- WRB		22	lf	RC1&3	1	2.67	2.00			59	44	-	-	$102.82	
367	e	Re-install existing siding		22	lf	RC1&3	1.5	4.01	1.00			88	22	-	-	$110.23	
368	f	Paint to match	See Painting									-	-	-	-	$0.00	
369	g	Clean Up		1	ls	RC1&3	1	58.82		20.00		59	-	20	-	$78.82	
370		Cost for this section	$624.06									-	-	-	-	$0.00	
371		Cost per LF	28.37									-	-	-	-	$0.00	
372												-	-	-	-	$0.00	
373												-	-	-	-	$0.00	
374	16	Flashing between the panel and HardiPlank siding is missing	7 total LOC									-	-	-	-	$0.00	$10,949.42
375	1	Building A		0	lf						28.37	-	-	-	-	$0.00	
376	2	Building B		0	lf						28.37	-	-	-	-	$0.00	
377	3	Building C		0	lf						28.37	-	-	-	-	$0.00	
378	4	Building D		0	lf						28.37	-	-	-	-	$0.00	
379	5	Building E		0	lf						28.37	-	-	-	-	$0.00	
380	6	Building F		64	lf						28.37	-	-	-	1,815	$1,815.45	
381	7	Building G		60	lf						28.37	-	-	-	1,702	$1,701.98	
382	8	Building H		60	lf						28.37	-	-	-	1,702	$1,701.98	
383	9	Building I		0	lf						28.37	-	-	-	-	$0.00	
384	10	Building J		60	lf						28.37	-	-	-	1,702	$1,701.98	
385	11	Building K		60	lf						28.37	-	-	-	1,702	$1,701.98	
386	12	Building L		0	lf						28.37	-	-	-	-	$0.00	
387	13	Building M		0	lf						28.37	-	-	-	-	$0.00	
388	14	Building N		60	lf						28.37	-	-	-	1,702	$1,701.98	
389	15	Building O		0	lf						28.37	-	-	-	-	$0.00	
390	16	Building P		0	lf						28.37	-	-	-	-	$0.00	
391	17	Building Q		0	lf						28.37	-	-	-	-	$0.00	
392	18	Building R		0	lf						28.37	-	-	-	-	$0.00	
393	19	Building S		0	lf						28.37	-	-	-	-	$0.00	
394	20	Building T		0	lf						28.37	-	-	-	-	$0.00	
395		Total All Buildings		364								-	-	-	-	$0.00	
396	a	Mobilize	O=EQIP	1	ls	RC1&3	1	58.82		40.00		59	-	40	-	$98.82	
397	b	Remove siding and store		22	lf	RC1&3	2	5.35				118	-	-	-	$117.64	
398	c	Prepare and prime trim		22	lf	RC1&3	1.5	4.01	1.00	0.25		88	22	6	-	$115.73	
399	d	Install new rigid head flashing and integrate w- WRB		22	lf	RC1&3	1	2.67	2.00			59	44	-	-	$102.82	
400	e	Re-install existing siding		22	lf	RC1&3	1.5	4.01	1.00			88	22	-	-	$110.23	
401	f	Paint to match	See Painting									-	-	-	-	$0.00	
402	g	Clean Up		1	ls	RC1&3	1	58.82		20.00		59	-	20	-	$78.82	
403		Cost for this section	$624.06									-	-	-	-	$0.00	
404		Cost per LF	28.37									-	-	-	-	$0.00	
405												-	-	-	-	$0.00	
406	17	Flashing between the siding and the stone is inadequate	3 total LOC		lf							-	-	-	-	$0.00	$8,147.30
407	1	Building A		0	lf						16.76	-	-	-	-	$0.00	
408	2	Building B		0	lf						16.76	-	-	-	-	$0.00	
409	3	Building C		0	lf						16.76	-	-	-	-	$0.00	
410	4	Building D		0	lf						16.76	-	-	-	-	$0.00	
411	5	Building E		0	lf						16.76	-	-	-	-	$0.00	
412	6	Building F		88	lf						16.76	-	-	-	1,475	$1,475.23	
413	7	Building G	5 LOC?	10	lf						16.76	-	-	-	168	$167.64	
414	8	Building H		168	lf						16.76	-	-	-	2,816	$2,816.35	
415	9	Building I		40	lf						16.76	-	-	-	671	$670.56	
416	10	Building J		14	lf						16.76	-	-	-	235	$234.70	
417	11	Building K		48	lf						16.76	-	-	-	805	$804.67	
418	12	Building L		28	lf						16.76	-	-	-	469	$469.39	

Cuban's Manor v Doc Jones Builders

Estimate Details

								Unit Cost				Direct Cost				Total	Total
Line	CSI	Description	Notes / Ref.	Qty	Unit	Crew	Hrs	Labor	Material	Other	Subc.	Labor	Material	Other	Subc.	Cost	Item
419	13	Building M		40	lf						16.76	-	-	-	671	$670.56	
420	14	Building N		30	lf						16.76	-	-	-	503	$502.92	
421	15	Building O		0	lf						16.76	-	-	-	-	$0.00	
422	16	Building P		0	lf						16.76	-	-	-	-	$0.00	
423	17	Building Q		0	lf						16.76	-	-	-	-	$0.00	
424	18	Building R	0 LOC	0	lf						16.76	-	-	-	-	$0.00	
425	19	Building S		0	lf						16.76	-	-	-	-	$0.00	
426	20	Building T		0	lf						16.76	-	-	-	-	$0.00	
427		Total All Buildings		466								-	-	-	-	$0.00	
428	a	Mobilize	O=EQIP	1	ls	RC1&3	0.5	29.41		20.00		29	-	20	-	$49.41	
429	b	Remove siding and store		20	lf	RC1&3	1	2.94				59	-	-	-	$58.82	
430	c	Install new rigid head flashing and integrate w- WRB		20	lf	RC1&3	1	2.94	2.00			59	40	-	-	$98.82	
431	d	Re-install existing siding		20	lf	RC1&3	1	2.94	1.00			59	20	-	-	$78.82	
432	e	Paint to match	See Painting									-	-	-	-	$0.00	
433	f	Clean Up		1	ls	RC1&3	0.5	29.41		20.00		29	-	20	-	$49.41	
434		Cost for this section	$335.28									-	-	-	-	$0.00	
435		Cost per LF	16.76									-	-	-	-	$0.00	
436												-	-	-	-	$0.00	
437	18	Flashing between the siding and the brick is inadequate			lf							-	-	-	-	$0.00	$0.00
438		See K17										-	-	-	-	$0.00	
439												-	-	-	-	$0.00	
440	19	Sheet metal flashings are rusting										-	-	-	-	$0.00	$0.00
441												-	-	-	-	$0.00	
442	20	Sheet metal flashings are poorly installed or missing			lf							-	-	-	-	$0.00	$0.00
443												-	-	-	-	$0.00	
444	21	Some gutters reverse sloped										-	-	-	-	$0.00	$0.00
445												-	-	-	-	$0.00	
446	**L**	**Sealant Joints**										-	-	-	-	$0.00	$0.00
447												-	-	-	-	$0.00	
448	1	Sealant joints with closed-cell backer rods are missing			lf							-	-	-	-	$0.00	$0.00
449												-	-	-	-	$0.00	
450	2	Adhesion of filet-shaped sealant joints has failed										-	-	-	-	$0.00	$0.00
451												-	-	-	-	$0.00	
452	3	Sealant joints are missing between stone and wood trim										-	-	-	-	$0.00	$0.00
453												-	-	-	-	$0.00	
454	4	Sealant joints are missing between brick and wood trim										-	-	-	-	$0.00	$0.00
455												-	-	-	-	$0.00	
456	5	Sealant joints are inadequate at other locations			lf							-	-	-	-	$0.00	$0.00
457												-	-	-	-	$0.00	
458	**M**	**Vinyl Windows**	Additional Locs	14	ea					1,169.96		-	-	16,379	-	$16,379.50	$17,549.46
459	a	Mobilize		1	ls	RC1&3	0.4	23.53	20.00			24	20	-	-	$43.53	
460	b	Remove existing trim		18	lf	RC1&3	0.2	0.65		0.10		12	-	2	-	$13.56	
461	c	Siding removal	?INCL in Siding?	1	ls	RC1&3	0.5	29.41		0.10		29	-	0	-	$29.51	
462	d	Remove and replace with new window		1	ls	RC1&3	1.5	88.23	300.00			88	300	-	-	$388.23	
463	e	Repair framing		1	ls	RC1&3	1	58.82	20.00			59	20	-	-	$78.82	
464	f	Flash with peel & stick flexible flashing - integrate w- WRB	TYP: 5'x4' WDO	26	lf	RC1&3	0.4	0.90	1.00			24	26	-	-	$49.53	
465	g	Cut new trim to length		26	lf	RC1&3	0.2	0.45	2.00			12	52	-	-	$63.76	
466	h	Pre-prime new trim on all 6 sides		26	lf	RC1&3	0.4	0.90	0.25			24	7	-	-	$30.03	
467	i	Install new trim		26	lf	RC1&3	0.5	1.13	0.10			29	3	-	-	$32.01	
468	j	Install new rigid head flashing and integrate w- WRB		5	lf	RC1&3	0.3	3.53	5.00			18	25	-	-	$42.65	
469	k	Re-install existing siding	?INCL in Siding?	1	ls	RC1&3	0.5	29.41	20.00			29	20	-	-	$49.41	
470	l	Install backer rod and sealant		26	lf	RC1&3	0.3	0.68	1.00			18	26	-	-	$43.65	
471	m	Repair interior GWB		1	ls	RC1&3	2	117.64	20.00	10.00		118	20	10	-	$147.64	
472	n	Paint interior to match		1	ls	RC1&3	2	117.64	30.00	10.00		118	30	10	-	$157.64	
473	o	Paint exterior to match	See Painting	1	ls							-	-	-	-	$0.00	

Cuban's Manor v Doc Jones Builders

Estimate Details

Line	CSI	Description	Notes / Ref.	Qty	Unit	Crew	Hrs	Unit Cost				Direct Cost				Total	Total
								Labor	Material	Other	Subc.	Labor	Material	Other	Subc.	Cost	Item
474												-	-	-	-	$0.00	
475	1	Wood framing is damaged around the windows										-	-	-	-	$0.00	$0.00
476												-	-	-	-	$0.00	
477	2	Vinyl windows were not installed per industry standards										-	-	-	-	$0.00	$0.00
478												-	-	-	-	$0.00	
479	3	Correct fasteners were not used to install the vinyl windows										-	-	-	-	$0.00	$0.00
480												-	-	-	-	$0.00	
481	4	Most vinyl windows were installed without flexible flashing			lf							-	-	-	-	$0.00	$0.00
482												-	-	-	-	$0.00	
483	5	Flexible flashing was not properly lapped with window head										-	-	-	-	$0.00	$0.00
484												-	-	-	-	$0.00	
485	6	Flexible flashing was not properly lapped with building paper										-	-	-	-	$0.00	$0.00
486												-	-	-	-	$0.00	
487	7	Sealant was not installed under vinyl window nailing fins										-	-	-	-	$0.00	$0.00
488												-	-	-	-	$0.00	
489	8	Building paper was lapped over the window sill nailing fin										-	-	-	-	$0.00	$0.00
490												-	-	-	-	$0.00	
491	9	Many vinyl windows have broken nailing fins										-	-	-	-	$0.00	$0.00
492												-	-	-	-	$0.00	
493	10	Some interior windows slightly racked or have bowed jambs										-	-	-	-	$0.00	$0.00
494												-	-	-	-	$0.00	
495	11	Stains from water intrusion at window sills.										-	-	-	-	$0.00	$0.00
496												-	-	-	-	$0.00	
497	12	Windows installed in shingle / shake siding have sills which hold water against the windows.										-	-	-	-	$0.00	$0.00
498												-	-	-	-	$0.00	
499	**N**	**Vinyl Sliding Glass Doors**	Additional Locs	9	ea					1,495.92		-	-	13,463	-	$13,463.28	$14,959.20
500	a	Mobilize		1	ls	RC1&3	0.4	23.53	2.00			24	2	-	-	$25.53	
501	b	Remove existing trim		24	lf	RC1&3	0.2	0.49		0.10		12	-	2	-	$14.16	
502	c	Siding removal	?INCL in Siding?	1	ls	RC1&3	0.5	29.41		0.10		29	-	0	-	$29.51	
503	d	Remove and replace with new SGD		1	ls	RC1&3	1.5	88.23	500.00			88	500	-	-	$588.23	
504	e	Repair framing		1	ls	RC1&3	1	58.82	20.00			59	20	-	-	$78.82	
505	f	Install sill flashing (tray)		1	ls	RC1&3	0.8	47.06	100.00			47	100	-	-	$147.06	
506	g	Flash with peel & stick flexible flashing - integrate w- WRB		24	lf	RC1&3	0.4	0.98	1.00			24	24	-	-	$47.53	
507	h	Cut new trim to length		24	lf	RC1&3	0.2	0.49	2.00			12	48	-	-	$59.76	
508	i	Pre-prime new trim on all 6 sides		24	lf	RC1&3	0.4	0.98	0.25			24	6	-	-	$29.53	
509	j	Install new trim		24	lf	RC1&3	0.5	1.23	0.10			29	2	-	-	$31.81	
510	k	Install new rigid head flashing and integrate w- WRB		6	lf	RC1&3	0.3	2.94	5.00			18	30	-	-	$47.65	
511	l	Re-install existing siding	?INCL in Siding?	1	ls	RC1&3	0.5	29.41	20.00			29	20	-	-	$49.41	
512	m	Install backer rod and sealant		24	lf	RC1&3	0.3	0.74	1.00			18	24	-	-	$41.65	
513	n	Repair interior GWB		1	ls	RC1&3	2	117.64	20.00	10.00		118	20	10	-	$147.64	
514	o	Paint interior to match		1	ls	RC1&3	2	117.64	30.00	10.00		118	30	10	-	$157.64	
515	p	Paint exterior to match	See Painting	1	ls							-	-	-	-	$0.00	
516												-	-	-	-	$0.00	
517	1	Wood framing is damaged around the sliding glass doors										-	-	-	-	$0.00	$0.00
518												-	-	-	-	$0.00	
519	2	Sliding glass doors were not installed per industry standards										-	-	-	-	$0.00	$0.00
520												-	-	-	-	$0.00	
521	3	Correct fasteners were not used to install the sliding glass doors										-	-	-	-	$0.00	$0.00
522												-	-	-	-	$0.00	
523	4	Most sliding glass doors were installed without flexible flashing										-	-	-	-	$0.00	$0.00

Cuban's Manor v Doc Jones Builders

Estimate Details

								Unit Cost				Direct Cost				Total	Total
Line	CSI	Description	Notes / Ref.	Qty	Unit	Crew	Hrs	Labor	Material	Other	Subc.	Labor	Material	Other	Subc.	Cost	Item
524												-	-	-	-	$0.00	
525	5	Sealant was not installed under sliding glass door nailing fins										-	-	-	-	$0.00	$0.00
526												-	-	-	-	$0.00	
527	6	Many sliding glass doors have broken nailing fins										-	-	-	-	$0.00	$0.00
528												-	-	-	-	$0.00	
529	7	Sheet metal door sill pans are missing under the sliding glass doors										-	-	-	-	$0.00	$0.00
530												-	-	-	-	$0.00	
531	8	Sliding glass doors installed on top of vertical panel siding										-	-	-	-	$0.00	$0.00
532												-	-	-	-	$0.00	
533	9	Sliding glass door sill nailing fins were removed										-	-	-	-	$0.00	$0.00
534												-	-	-	-	$0.00	
535	10	Some interior sliding glass doors slightly racked or have bowed jambs										-	-	-	-	$0.00	$0.00
536												-	-	-	-	$0.00	
537	11	Stains from water intrusion at door sills.										-	-	-	-	$0.00	$0.00
538												-	-	-	-	$0.00	
539	**O**	**Paint**			sf							-	-	-	-	$0.00	$147,542.50
540												-	-	-	-	$0.00	
541	1	Building A	2 Units	3,748	sf						1.75	-	-	-	6,559	$6,559.00	
542	2	Building B	2 Units	3,748	sf						1.75	-	-	-	6,559	$6,559.00	
543	3	Building C	1 Unit	2,696	sf						1.75	-	-	-	4,718	$4,718.00	
544	4	Building D	1 Unit	2,696	sf						1.75	-	-	-	4,718	$4,718.00	
545	5	Building E	3 Units	5,314	sf						1.75	-	-	-	9,300	$9,299.50	
546	6	Building F	4 Units	6,000	sf						1.75	-	-	-	10,500	$10,500.00	
547	7	Building G	4 Units	6,000	sf						1.75	-	-	-	10,500	$10,500.00	
548	8	Building H	4 Units	6,000	sf						1.75	-	-	-	10,500	$10,500.00	
549	9	Building I	2 Units	3,748	sf						1.75	-	-	-	6,559	$6,559.00	
550	10	Building J	2 Units	3,748	sf						1.75	-	-	-	6,559	$6,559.00	
551	11	Building K	2 Units	3,748	sf						1.75	-	-	-	6,559	$6,559.00	
552	12	Building L	2 Units	3,748	sf						1.75	-	-	-	6,559	$6,559.00	
553	13	Building M	2 Units	3,748	sf						1.75	-	-	-	6,559	$6,559.00	
554	14	Building N	3 Units	5,314	sf						1.75	-	-	-	9,300	$9,299.50	
555	15	Building O	2 Units	3,748	sf						1.75	-	-	-	6,559	$6,559.00	
556	16	Building P	2 Units	3,748	sf						1.75	-	-	-	6,559	$6,559.00	
557	17	Building Q	2 Units	3,748	sf						1.75	-	-	-	6,559	$6,559.00	
558	18	Building R	2 Units	3,748	sf						1.75	-	-	-	6,559	$6,559.00	
559	19	Building S	2 Units	3,748	sf						1.75	-	-	-	6,559	$6,559.00	
560	20	Building T	3 Units	5,314	sf						1.75	-	-	-	9,300	$9,299.50	
561		Total All Buildings		84,310								-	-	-	-	$0.00	
562			Need QTO									-	-	-	-	$0.00	
563	1	The paint has failed at many locations										-	-	-	-	$0.00	$0.00
564												-	-	-	-	$0.00	
565	**P**	**Mechanical**										-	-	-	-	$0.00	$0.00
566												-	-	-	-	$0.00	
567	1	Rain drain piping is exposed and unburied		0	allow							-	-	-	-	$0.00	$0.00
568												-	-	-	-	$0.00	
569	2	Rain drain risers are unused and uncapped		1	allow					500.00		-	-	500	-	$500.00	$500.00
570												-	-	-	-	$0.00	
571	3	Rain drain piping transition is broken		0								-	-	-	-	$0.00	$0.00
572												-	-	-	-	$0.00	
573	4	Rain drain riser is improperly located		0	allow							-	-	-	-	$0.00	$0.00
574												-	-	-	-	$0.00	
575	5	Gas pipes enter the crawl space through the vent screen	Clear vents	12	loc	RC3	16	50.08	10.00			601	120	-	-	$720.96	$720.96

Cuban's Manor v Doc Jones Builders

Estimate Details

Line	CSI	Description	Notes / Ref.	Qty	Unit	Crew	Hrs	Unit Cost Labor	Unit Cost Material	Unit Cost Other	Unit Cost Subc.	Direct Cost Labor	Direct Cost Material	Direct Cost Other	Direct Cost Subc.	Total Cost	Total Item
576												-	-	-	-	$0.00	
577	6	Driveway is damaged at an unburied rain drain pipe		1	allow					1,000.00		-	-	1,000	-	$1,000.00	$1,000.00
578												-	-	-	-	$0.00	
579	7	Exhaust vents are damaged			loc							-	-	-	-	$0.00	$0.00
580												-	-	-	-	$0.00	
581	8	Water meter vaults are poorly installed			loc							-	-	-	-	$0.00	$0.00
582												-	-	-	-	$0.00	
583	9	Dryer hoses with excessive bending			loc							-	-	-	-	$0.00	$0.00
584												-	-	-	-	$0.00	
585	10	Exterior vents for kitchen and bathroom fans incorrectly placed near intake locations such as windows or intake vents.										-	-	-	-	$0.00	$0.00
586												-	-	-	-	$0.00	
587	11	Uneven heating in multi-story units	Service Call	5	unit	SUB@100	4				400.00	-	-	-	2,000	$2,000.00	$2,000.00
588												-	-	-	-	$0.00	
589	12	Rooms with ventless fireplaces missing carbon monoxide sensors.		0	loc							-	-	-	-	$0.00	$0.00
590												-	-	-	-	$0.00	
591	13	Bathroom fans too small to handle volume of rooms		0	loc							-	-	-	-	$0.00	$0.00
592												-	-	-	-	$0.00	
593	14	Whole House Fan missing in one unit, incorrectly timed or disabled in some units	Service Call	1	loc	SUB@100	4				400.00	-	-	-	400	$400.00	$400.00
594												-	-	-	-	$0.00	
595	15	Some units with fireplace fan failures	Service Call	2	loc	SUB@100	4				400.00	-	-	-	800	$800.00	$800.00
596												-	-	-	-	$0.00	
597	16	Some heating ducts improperly installed.	See P11		loc							-	-	-	-	$0.00	$0.00
598												-	-	-	-	$0.00	
599	17	Attic ventilation. Organic growth observed at underside of roof sheathing, indicating poor ventilation. Attic insulation blocking venting.	4 HR/BLDG	2	loc	RC3	8.0	150.24	20.00			300	40	-	-	$340.48	$340.48
600												-	-	-	-	$0.00	
601	**Q**	**Electrical**	Allow 4 HR/BLDG	20	bldg	SUB@75	4		50.00		300.00	-	1,000	-	6,000	$7,000.00	$7,000.00
602												-	-	-	-	$0.00	
603	1	Hole for the electrical soffit light fixture is poorly cut			allow							-	-	-	-	$0.00	$0.00
604												-	-	-	-	$0.00	
605	2	Wiring penetrations through walls are unsealed			allow							-	-	-	-	$0.00	$0.00
606												-	-	-	-	$0.00	
607	3	Light fixture mounting blocks are broken		0	allow							-	-	-	-	$0.00	$0.00
608		See siding sections for any repairs like these										-	-	-	-	$0.00	
609												-	-	-	-	$0.00	
610	4	Light fixtures are installed without mounting blocks			allow							-	-	-	-	$0.00	$0.00
611		See siding sections for any repairs like these										-	-	-	-	$0.00	
612												-	-	-	-	$0.00	
613	5	Unused electrical wiring has not been removed		0	loc							-	-	-	-	$0.00	$0.00
614												-	-	-	-	$0.00	
615	6	Telephone junction box is unsecured		1	allow	RC3	1.0	37.56	5.00			38	5	-	-	$42.56	$42.56
616												-	-	-	-	$0.00	
617	**R**	**Gypsum Wallboard**										-	-	-	-	$0.00	$0.00
618												-	-	-	-	$0.00	
619	1	Minimal drywall cracking adjacent to the racked and bowed windows/doors at several corners of the window/door sills and heads.		0	loc							-	-	-	-	$0.00	$0.00
620												-	-	-	-	$0.00	
621	2	Drywall cracking at the first floor ceilings related to deficiently sized beam between the kitchen and living room.		0	loc							-	-	-	-	$0.00	$0.00

Cuban's Manor v Doc Jones Builders

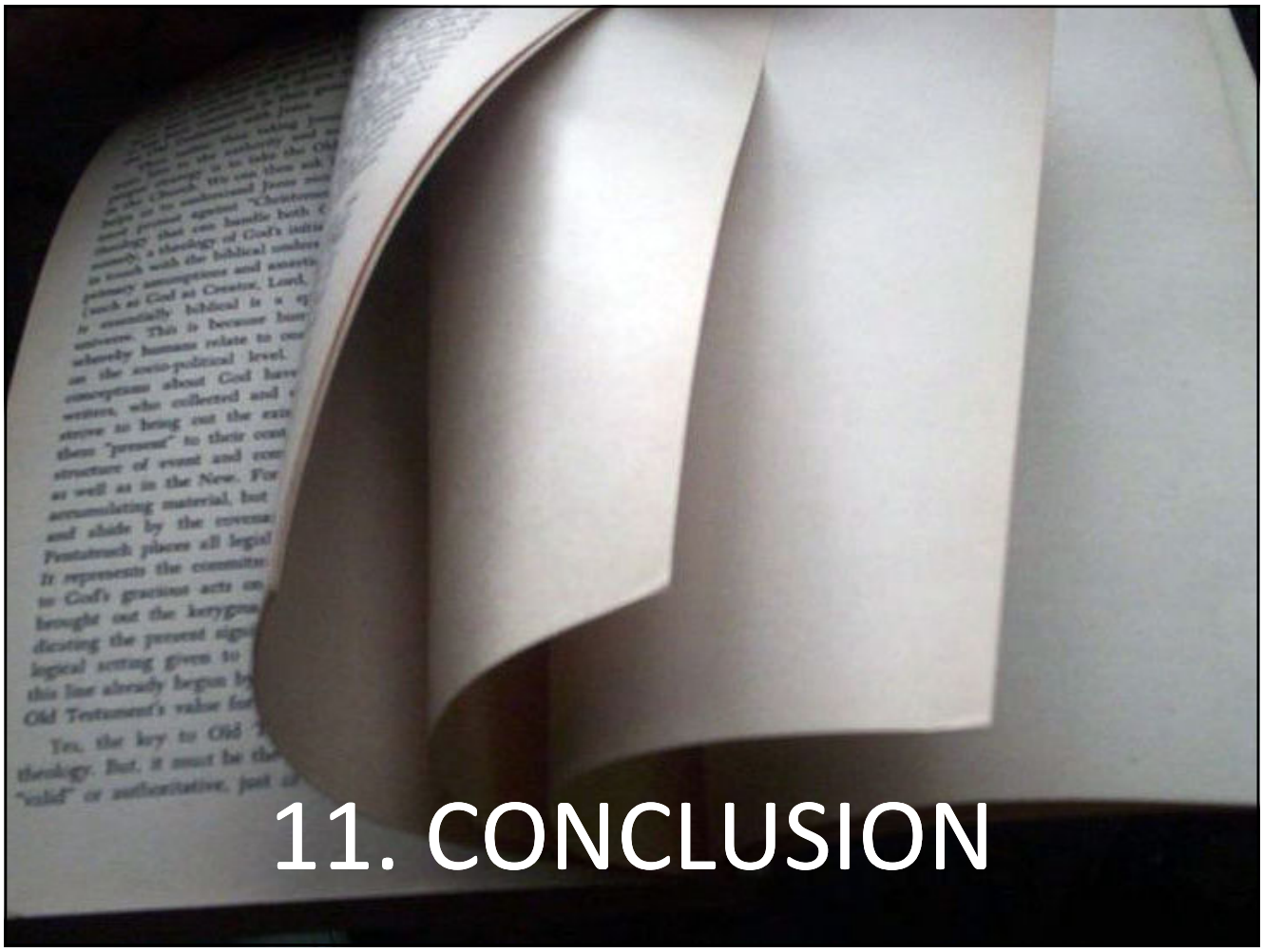
Estimate Details

Line	CSI	Description	Notes / Ref.	Qty	Unit	Crew	Hrs	Unit Cost				Direct Cost				Total Cost	Total Item
								Labor	Material	Other	Subc.	Labor	Material	Other	Subc.		
622		See Framing section for this repair and collateral damage										-	-	-	-	$0.00	
623												-	-	-	-	$0.00	
624	3	Drywall cracking at the second floor above the deficiently sized beam between the kitchen and living room.		0	loc							-	-	-	-	$0.00	$0.00
625		See Framing section for this repair and collateral damage										-	-	-	-	$0.00	
626												-	-	-	-	$0.00	
627	**S**	**Doors**										-	-	-	-	$0.00	$0.00
628												-	-	-	-	$0.00	
629	1	Door racking in relation to beam deflection.		0	loc							-	-	-	-	$0.00	$0.00
630		See Framing section for this repair and collateral damage										-	-	-	-	$0.00	
631												-	-	-	-	$0.00	
632	2	Garage doors not closing fully, leaving gap at bottom of door	2 HR/LOC	1	loc	RC3	2.0	75.12	25.00			75	25	-	-	$100.12	$100.12
633												-	-	-	-	$0.00	
634	**T**	**Plumbing**										-	-	-	-	$0.00	$23,500.00
635		Assume plumbing service call with PLMR & Helper		47	units	SUB@100	4		100.00		400.00	-	4,700	-	18,800	$23,500.00	
636												-	-	-	-	$0.00	
637	1	Dishwasher air gap receptacle at sink is loose	See Service Call	47	units							-	-	-	-	$0.00	$0.00
638												-	-	-	-	$0.00	
639	2	Angle stops under kitchen sink loose	See Service Call	47	units							-	-	-	-	$0.00	$0.00
640												-	-	-	-	$0.00	
641	3	Angle stops under bathroom sinks loose	See Service Call	47	units							-	-	-	-	$0.00	$0.00
642												-	-	-	-	$0.00	
643	4	Tub spout loose below mixer valve or missing proper caulking	See Service Call	47	units							-	-	-	-	$0.00	$0.00
644												-	-	-	-	$0.00	
645	5	Shower head loose	See Service Call	47	units							-	-	-	-	$0.00	$0.00
646												-	-	-	-	$0.00	
647	6	Water heaters without containment tubs or trays present underneath tanks.	See Service Call	47	units							-	-	-	-	$0.00	$0.00
648												-	-	-	-	$0.00	
649	7	Water heaters missing drain line to exterior of building	See Service Call	47	units							-	-	-	-	$0.00	$0.00
650												-	-	-	-	$0.00	
651	8	Water heaters missing expansion tanks or tanks placed incorrectly (horizontally).	See Service Call	47	units							-	-	-	-	$0.00	$0.00
652												-	-	-	-	$0.00	
653	9	"Water Hammer" noise when shutting off kitchen faucets required water suppression device.	See Service Call	47	units							-	-	-	-	$0.00	$0.00
654												-	-	-	-	$0.00	
655	10	Water heater contains a pressure reduction valve which does not drain to the exterior.	See Service Call	47	units							-	-	-	-	$0.00	$0.00
656												-	-	-	-	$0.00	
657												-	-	-	-	$0.00	
658												-	-	-	-	$0.00	
659												-	-	-	-	$0.00	
660		Note: Red numbers in the Notes column are the plaintiff's unburdened costs.										-	-	-	-	$0.00	
661																	
662												28,741	22,516	181,007	286,553	$518,816.40	$518,816.40

Cuban's Manor v Doc Jones Builders

Labor Rates - OR 2006

Code	Unit	Rate	Description									Asst.				
			Laborer			Carpenter			Conc. Fin.			Project	Project			
			App	Jou	For.	App	Jou	For.	App	Jou	For.	Manager	Manager	Supt.	Average	
														.		
Cost Unburdened			9.00	13.00	21.00	15.00	21.00	25.00	15.00	21.00	25.00	20.00	35.00	30.00	27.78	
Health Care	$0	/Hr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Vacation	$0	/Hr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Education	$0.00	/Hr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Fica	7.65%	%	0.69	0.99	1.61	1.15	1.61	1.91	1.15	1.61	1.91	1.53	2.68	2.30	2.13	
State	0.00%	%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Federal Unemp	0.80%	%	0.07	0.10	0.17	0.12	0.17	0.20	0.12	0.17	0.20	0.16	0.28	0.24	0.22	
Futa	8.00%	%	0.72	1.04	1.68	1.20	1.68	2.00	1.20	1.68	2.00	1.60	2.80	2.40	2.22	
SDI	0.00%	%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
State Unemp	3.50%	%	0.32	0.46	0.74	0.53	0.74	0.88	0.53	0.74	0.88	0.70	1.23	1.05	0.97	
Workmans Comp BLW $21	48.00%	%	4.32	6.24		7.20			7.20			1.00	1.75		4.62	
Workmans Comp ABV $21	16.00%				3.36		3.36	4.00		3.36	4.00			4.80		
Vehicle	$0	%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Liability Insurance	10.00%	%	0.90	1.30	2.10	1.50	2.10	2.50	1.50	2.10	2.50	2.00	3.50	3.00	2.78	
															0.00	
Burdened $/Hr.			**16.02**	**23.13**	**30.65**	**21.26**	**28.23**	**37.56**	**26.69**	**30.65**	**36.49**	**26.99**	**47.23**	**43.79**	**40.97**	
Percent Overhead			44%	44%	31%	29%	26%	33%	44%	31%	31%	26%	26%	31%	44.18%	**Crew Cost**
															Crew Cost	**per Hour**
Demolition															**per Hour**	**w/ 20% O&P**
D 1				1											**$23.13**	**$27.76**
D 2			1	1											**$39.15**	**$46.98**
D 3				2											**$46.27**	**$55.52**
D 4			1	2											**$62.28**	**$74.74**
D 5				2			1								**$74.50**	**$89.40**
D 6			1	2			1								**$90.51**	**$108.62**
D 7			2	2											**$78.30**	**$93.96**
D 8			2	2			2								**$134.76**	**$161.71**
Site Work																
SW 1			1												**$16.02**	**$19.22**
SW 2			2												**$32.03**	**$38.44**
SW 3			1	1											**$39.15**	**$46.98**
SW 4			2	1											**$55.16**	**$66.20**
SW 5			0	1			1			1					**$82.01**	**$98.42**
SW 6			0	2			2			2					**$164.03**	**$196.83**
SW 7						1	1								**$49.49**	**$59.39**
SW 8						1	2								**$77.72**	**$93.26**
SW 9						2	2								**$98.98**	**$118.78**
SW 10				1			1								**$51.36**	**$61.64**
Concrete																
C 1										1					**$30.65**	**$36.78**
C 2									1	1					**$57.34**	**$68.81**
C 3									1	2	1				**$124.48**	**$149.37**
C 4							1			3					**$120.18**	**$144.21**
C 5				1			2			3					**$171.54**	**$205.85**
C 6			1	1		1	1		1	3					**$207.28**	**$248.74**
C 7			1	1		1	2		1	2	1				**$241.35**	**$289.62**
Rough Carpentry																
RC 1						1									**$21.26**	**$25.51**
RC 2							1								**$28.23**	**$33.88**
RC 3								1							**$37.56**	**$45.07**
RC 4						1	2								**$77.72**	**$93.26**
RC 5						2	2								**$98.98**	**$118.78**
RC 6						3	3	1							**$186.03**	**$223.24**
RC 7				1		2	2								**$122.11**	**$146.54**
RC 8				2		2	2	1							**$182.81**	**$219.37**
Finish Carpentry																
FC 1						1									**$21.26**	**$25.51**
FC 2							1								**$28.23**	**$33.88**
FC 3								1							**$37.56**	**$45.07**
FC 4						1	2								**$77.72**	**$93.26**
FC 5						2	2								**$98.98**	**$118.78**
FC 6						2	2	1							**$136.54**	**$163.85**



11. CONCLUSION

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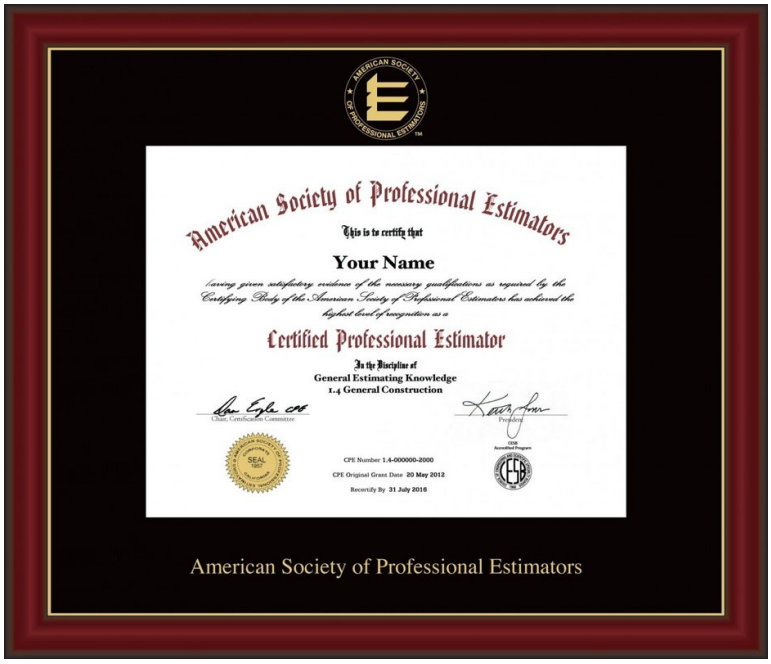
7. CONCLUSION

Estimating is a Skill and Profession



7. CONCLUSION

Estimator Certification



7. CONCLUSION

Learning Objectives

- **Part 1: Understanding & Evaluating Cost Estimates**
  - Understand how to summarize a construction cost estimate.
  - Understand the basics of estimate analysis.
  - Learn what project and labor burden are.
  - Discuss the power and dangers of Xactimate.
  - Review some case studies and real-world examples of construction cost estimate summary & analysis.



7. CONCLUSION

Learning Objectives

- **Part 2: Budgeting and Estimating**
  - Understand the fundamentals of estimating
  - Orientation to estimate components
  - PFCS 5 Levels – 10 steps of estimating
  - Introduction to analysis of estimates and construction costs

7. CONCLUSION

Backup Materials

- **Part 1: Understanding & Evaluating Cost Estimates**
  - Level 5 Estimating
  - Estimate Summary and Estimate Detail Page
  - Estimate Backup Samples
  - Estimate (by Others) for Analysis #1
  - Estimate Analysis & Memo (of #1)
  - Estimate Analysis Worksheet
  - Estimate to Demonstrate Burden Calculations
  - Estimate (by Others) for Analysis #2
  - Estimate Comparison
  - Comparison of Multiple Estimates
  - Estimate Comparison Worksheet
  - Xactimate Estimate (by Others) for Analysis #3
  - Xactimate Discussion Memo



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7. CONCLUSION

Backup Materials

- **Part 2: Budgeting and Estimating**
  - Order of Magnitude (Level 1) Estimate
  - Blank Estimate Worksheets
  - Uniformat Codes
  - Detailed Estimate (Level 5) w Many Components
  - Conceptual Estimate for a $222 Million Hotel
  - Sample Estimate: Siding Repair on a Hotel
  - Sample Estimate: Construction Defect Repairs on Condos
  - A List of Awesome Estimating Articles



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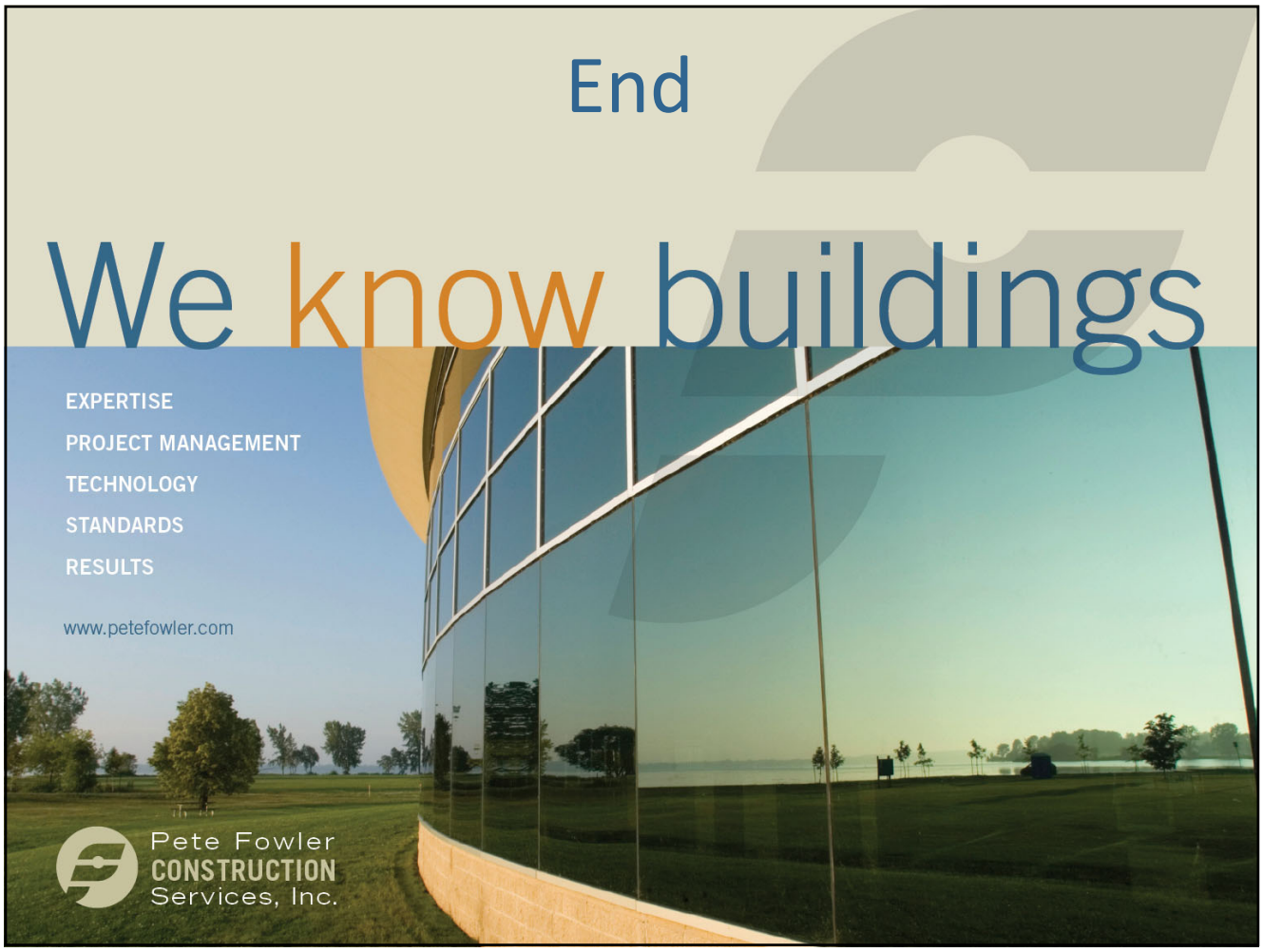
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Campaign Note

Date: 12/06/2018
To: FILE
From: Kelton Lampkin
Campaign: 2019-01 Portland Cost Estimating Seminar
Regarding: Campaign Note

A List of Awesome Cost Estimating Articles

- The Nine Secrets of Estimating (pfcs.co/8p39)
- Teaching and Learning the Foundation of Construction Estimating (pfcs.co/hpqs)
- Bidding Large Jobs (pfcs.co/4jrq)
- How to Estimate the Cost of an Office Building Using Uniformat II - Part 1 (pfcs.co/7xk7)
- How to Estimate the Cost of an Office Building Using Uniformat II - Part 2 (pfcs.co/v73u)
- Level 5 Estimating Matrix (pfcs.co/592e)
- Building a Unit Price - JLC (pfcs.co/bfm5)
- Developing Unit-Cost Assemblies for Estimating (pfcs.co/fqw6)
- Unit Price Estimating (pfcs.co/wzxp)
- Conceptual Estimating (pfcs.co/j7f6)
- Careful Estimating (pfcs.co/c34t)
- Remodeler's Estimating Checklist (pfcs.co/yhzq)
- Taking The Guess Out of Guestimating (pfcs.co/3dzy)