PROJECT MANAGEMENT & CONTRACTING 101

THE PROCESS OF ACHIEVING YOUR GOALS

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A complex process to complete such seemingly simple tasks as unclogging a drain,
or so complex as putting a man on the moon

Requires you to follow a process to achieve YOUR Goal

(This Requires YOUR Involvement)
“Any fool can write a book and most of them are doing it; but it takes brains to build a house.”
— Charles Fletcher Lummis

Anybody can run a project, the talent is in realizing the goals that were set.
- Chris Craft- NASA

There are two ways to do this. My way or yours and it’s my money, don’t forget it.
-Cleo Mast
Clear, Itemized Goals are Key

Outcome(s)  
Time  
Cost  
Quality

Necessary to Prevent.......... 

Delays  
Cost Over-runs  
Mistakes  
Mis-communication

“I don’t know what I want.......  
I only know this is what I don’t want”  
- Actual former client
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OUTCOMES VARY

From Simple....... "TRUST ME I'M AN ENGINEER" HE SAID

"IT WILL BE A NORMAL DOOR" HE SAID

To Complex....... "IT WILL BE YOURS FOREVER" HE SAID

CHECK DAILY

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Why Bother? What Could Go Wrong?
It’s just a Home Office/Window Replacement/ _____________(Fill in the Blank)

What you thought you contracted for
What the Contractor Delivered

While you were away
<table>
<thead>
<tr>
<th>Levels of Service</th>
<th>Licenses</th>
<th>Insurance</th>
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<tbody>
<tr>
<td>Handyman</td>
<td>No Bus. License</td>
<td>No Insurance</td>
</tr>
<tr>
<td>Unlicensed Contractor</td>
<td>Bus. License</td>
<td>Gen. Liability</td>
</tr>
<tr>
<td>Licensed but No Insurance</td>
<td>Gen. Liability</td>
<td>Gen. Liability</td>
</tr>
<tr>
<td>Licensed Class “B’ or “C” License</td>
<td>Gen. Liability</td>
<td>Workman’s Comp</td>
</tr>
<tr>
<td>Licensed Class “A”</td>
<td>Gen. Liability</td>
<td>Workman’s Comp</td>
</tr>
</tbody>
</table>
CONTRACTING 101

METHODS OF CONTRACTING

- FIXED FEE
- COST PLUS
- COMPETITIVE BID

OPEN BOOK & FEE FOR SERVICES

DESIGN-BUILD

HYBRIDS

PROS & CONS
(OR TRYING TO CON THE PRO)

- YOU KNOW COST
- YOU DON’T GET SAVINGS
- YOU KNOW COSTS
- YOU DON’T GET REBATES
- PROJECT MAY TAKE LONGER
- SEMI-FIXED PRICE
- CHANGE ORDERS
- REQUIRES DETAILED DOCUMENTS
- YOU KNOW COST
- REQUIRES AN ACCOUNTANT’S MIND
- FEWER CHANGE ORDERS
- LONGER PLANNING PHASE

Disclaimer: I am not an attorney—always seek legal advice

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CONTRACTING 101

TYPES OF CONTRACTS

ORAL

WRITTEN- INFORMAL

ESTIMATE/QUOTE SHEET

WRITTEN SEMI-FORMAL

WRITTEN FORMAL

ELEMENTS OF CONSTRUCTION CONTRACTS

REQUIRED

LEGAL SAFEGUARDS FOR PARTIES

MUTUAL AGREEMENT

CONSIDERATION

LEGAL PURPOSE

PROTECTIVE

FULL WORK DESCRIPTION

SPECIFICATION OF PRODUCTS

METHODS OF INSTALLATION

TIME REQUIRED & ANY PENALTY

WORK BE FULLY COMPLETE

STANDARD OF QUALITY EXPECTED

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REQUESTS FOR PAYMENT

RULES

• Never pay in cash
• Never pay without an itemized statement
• Always set up payments based on verifiable completion of work tasks (such as completion of framing, roofing)
• Never pay for anticipated completion – even a day
• Always compare stated completions against reality-note discrepancies in writing
• Always keep accurate records- Do not rely on other’s records
• Obtain a lien waiver as a condition for payment, including subs.
GENERAL CONDITIONS OF THE CONTRACT
(A FEW EXAMPLES)

- DRAWINGS
- OWNERSHIP
- CONTRACT DOCUMENTS
- SHOP DRAWINGS & SAMPLES
- SURVEYS & PERMITS
- PROTECTION OF WORK
- SUPERVISION
- CHANGES TO WORK
- DELAYS AND EXTENSIONS
- OWNER’S RIGHT TO DO WORK
- OWNER’S RIGHT TO TERMINATE
- PAYMENT SCHEDULES
- RIGHT TO WITHHOLD PAYMENT

- LIENS & ASSIGNMENT
- SUBCONTRACTOR APPROVAL
- ALLOWANCES
- USE OF PREMISES
- CUTTING, PATCHING & DIGGING
- DISPOSALS & CLEAN-UP
- TEMPORARY FACILITIES
- UTILITIES
- STORAGE & LAY-DOWN
- BUILDER’S RISK
- PROPERTY PROTECTION
- SAFETY
- PROHIBITED ACTS
Your ability to influence the project outcome decreases as the project progresses.
BASIC CONSTRUCTION PROJECT PROCESS

Owner Degree of Control

Owner Degree of Control

Pre-Construction

Owner

Contractor

CONTRACTOR

Construction

CONTRACTOR

Post-Construction

Owner

Contractor Degree of Control
PROJECT MANAGEMENT & CONTRACTING 101

PHASE I
PRE-CONSTRUCTION

Seven “P” Rule
Proper Prior Planning Prevents Piss Poor Performance

Required Inputs
- Standards
- Max Budget
- Completion Date

OWNER
- Pre-Construction Inputs
- Approved Budget
- Approved Schedule

CONTRACTOR
- Quality Levels
- Fixed Budget
- Schedule
- Permits
- Product Levels

Pre-Construction Outputs
- Required Inputs
- Qualifications
- Insurance
- Resume
- Projects
- References

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PHASE 2
CONSTRUCTION

"Let's take another look at the plans, shall we?"

Trust but verify Daily
(It isn't rocket science)
**PHASE 3**

**POST-CONSTRUCTION**

- Final Walk-Throughs
- Punch Lists
- Final Adjustments
- MEP Understanding

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**Required Inputs**

**OWNER**
- Post Construction

**CONTRACTOR**
- Changes Made
- Pending Last Items
- Walk-Throughs
- Equip. Commissioning
- MEP Explanation

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**Payment Less Retainage**
- Resolved Punch List Items
- Final Decisions

**Post Construction Outputs**
- Site & Bldg. Clean-Up
- Certificate of Substantial Completion
- Certificate of Occupancy
- Pass-Through Warranty
- Product Manuals

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Additions To Contract:
Contractor eligible for
- Extra Money
- Extra Time
- Extra Mark-ups
- Net Cost of Change

Deletions To Contract:
Owner eligible for
- Cost Savings
- Time Savings
- Re-stocking Charge
- Net Cost of Change

CHANGE ORDERS

Request For Information
RFI – No Cost

Change Order Proposal
Acceptance

Contract Changed
(Cost & Savings)

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<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
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<tbody>
<tr>
<td>General Conditions</td>
<td>01</td>
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<tr>
<td>Existing Conditions</td>
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<tr>
<td>Concrete</td>
<td>03</td>
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<tr>
<td>Masonry</td>
<td>04</td>
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<tr>
<td>Metals</td>
<td>05</td>
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<tr>
<td>Wood, Plastics &amp; Composites</td>
<td>06</td>
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<tr>
<td>Thermal &amp; Moisture Protection</td>
<td>07</td>
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<tr>
<td>Openings</td>
<td>08</td>
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<td>Finishes</td>
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<tr>
<td>Specialties</td>
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<td>Equipment</td>
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<td>Furnishings</td>
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<tr>
<td>Special Construction</td>
<td>13</td>
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<td>Conveying Equipment</td>
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<td>Materials Processing &amp; Handling</td>
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<tr>
<td>Electrical Power Generation</td>
<td>27</td>
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COMMON PROBLEMS

EVERYTHING IS A SYSTEM

- Designed and engineered as a system
- Installed and serviced by trained and authorized representatives
- For more and more specific applications
- Forcing the local trades to specialize

- Chimney Sweeps
- Foundation Repairs
- Plumbers who specialize in
  - Water Heaters
  - Sinks & Faucets
- Decks & Patios
- Insulation
- Moisture
- Disposals & Clogs
COMMON PROBLEMS

BUILDING PERMITS AND CODE INSPECTIONS

FACT: Most Va. Localities require a building permit form any replacement
FACT: Many repair men don’t have a license capable of pulling a permit
FACT: Any homeowner can pull a building permit
FACT: The permit holder is responsible for inspections & meeting code

You take out the permit and the locality holds you responsible for meeting permit requirements
COMMON PROBLEMS

REVIEWS AND CODE INSPECTIONS

USUAL REVIEW & APPROVALS

- Site Plan
- Erosion & Sedimentation Control Plan
- Storm water Management Plan
- Architectural & HOA approvals

USUAL INSPECTIONS

<table>
<thead>
<tr>
<th>Rough-In</th>
<th>Complete</th>
<th>Final</th>
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</thead>
<tbody>
<tr>
<td>Site Plan &amp; E/S</td>
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<td></td>
</tr>
<tr>
<td>Land Clearing &gt; 2,000 sf</td>
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<tr>
<td>Footer</td>
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<tr>
<td>Foundation &amp; Crawl Space</td>
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<tr>
<td>Special</td>
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</table>

DOMINION WILL NOT SET METER AND ENERGIZE HOUSE WITHOUT

Certificate Of Occupancy

CALL MISS UTILITY

Homeowners & Contractors
Request a Ticket Here!

Call Before You Dig

Va811.com
Dial 811 in Virginia

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COMMON PROBLEMS

A WORD ABOUT THE BUILDING CODE

Dates at least back to the Code of Hammurabi
US-City of Baltimore 1859, Chicago Fire 1871
Hurricane Andrew-Florida

“IT MEETS CODE, IT PASSES”


THE BUILDING CODE IS A MINIMUM STANDARD

ONE STEP LESS IN ANY AREA AND THE HOUSE IS CONDEMNED FROM HABITATION

Yea!! Our house got a D−
CONTRACTING 101

ADMINISTRATION

BASIC CONSTRUCTION BUSINESS TENENTS:

1. Use other people’s money
2. Get as much as you can upfront
3. Add profit to everything
4. Use the next job to pay for the last job, if you have to

SMALL CONTRACTOR REALITIES

1. Chronically under capitalized- cash basis
2. Chronically bad business people
3. Little understanding of accounting
4. Chronically understaffed
5. May have supplier liens against past work
6. Usual and customary to trade is not quality

RISE OF THE FRANCHISE

One Hour Serve Pro
Michael & Son Mr. Electric Mr. Sparky

SMALL CONTRACTOR PRACTICES

1. Ask for 50% as an advance for materials
2. Ask for frequent payments
3. Promise anything- there’s always an excuse
4. Always work on the job nearest a billing point
5. As long as it looks good and passes inspection, it’s quality.
CONTRACTING 101

HELP!!

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CONTRACTING 101

REALITY

NOTHING EVER GOES AS PLANNED

FOLLOW THE BOY SCOUT MOTTO

BE PREPARED !!
RULES

NOTHING ALWAYS GOES AS PLANNED.

1. DOCUMENT EVERYTHING