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The goal of the IMPACT Webcast Series on Growing a Business is to provide our contractors with information, tools, and resources that they can use to grow and improve their business. We conduct one webcast every month, and each webcast covers a business topic relevant to the operations of an ironworker contractor. IMPACT provides recorded versions of our monthly Growing a Business webcasts. We also provide copies of the speakers' presentations.

**March 2016**

Episode 13

TITLE:

**Getting Paid**

**INSTRUCTOR: Ken Roper, FMI**



Any questions regarding this series please contact Dr. Cindy Menches  
at [cmenches@impact-net.org](mailto:cmenches@impact-net.org)



# Quote: Running Out of Cash

“All sins are forgivable but one, running out of cash”

—famous CEO



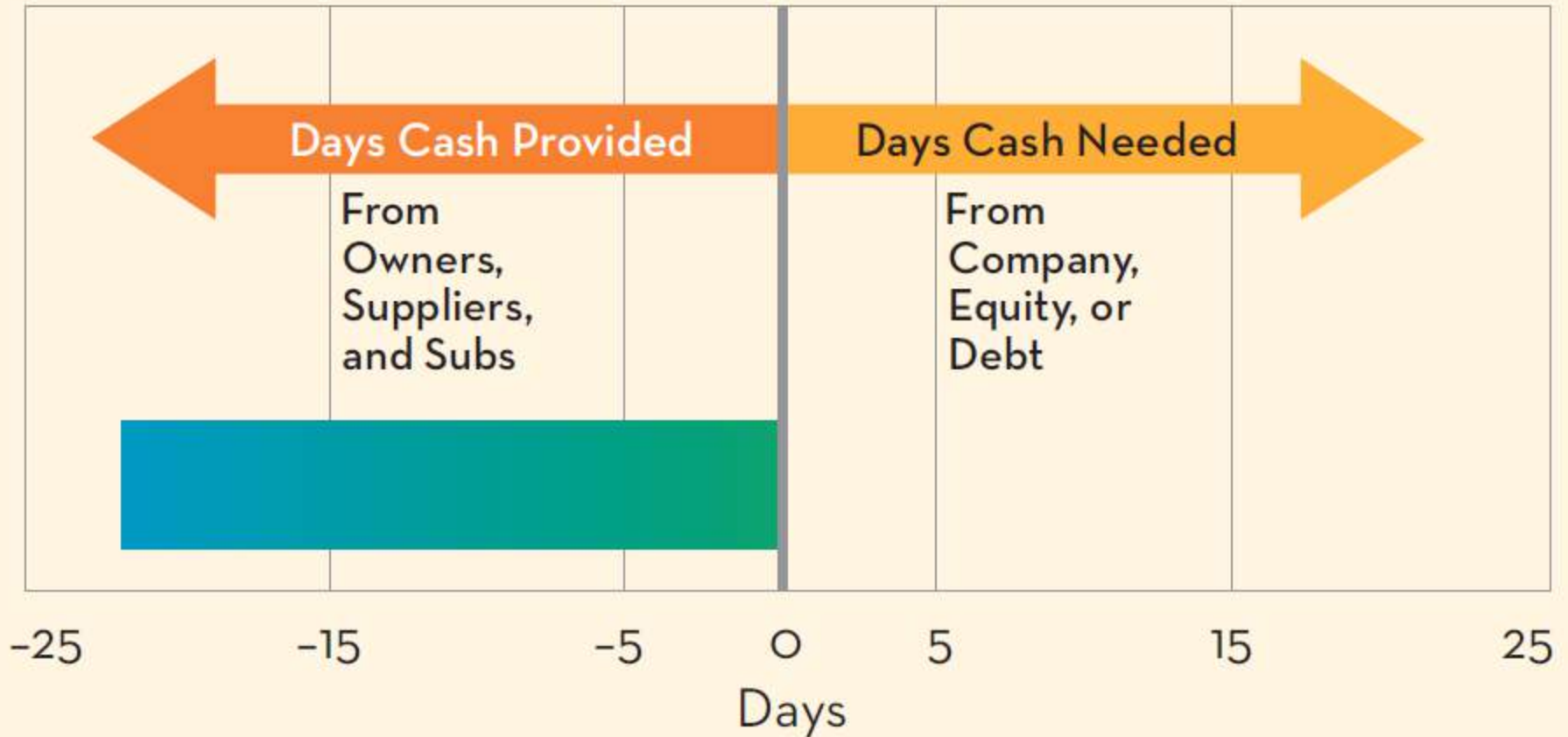
# Liquidity Indicator

Contractor Revenue	\$22,120,246	RMA			
<b>Assets</b>	<b>Account Balance</b>	<b>Days by Account</b>	<b>Top ¼</b>	<b>Median</b>	<b>Lower ¼</b>
Accounts Receivable	\$1,727,898	29	59	76	93
Retainage Receivable	\$1,443,366	24	**	**	**
Under-Billings	\$508,351	8	**	**	**
Cash Conversion	\$3,679,615	61			
<b>Liabilities</b>	<b>Account Balance</b>	<b>Days by Account</b>	<b>Top ¼</b>	<b>Median</b>	<b>Lower ¼</b>
Accounts Payable	\$2,027,022	33	19	29	45
Accounts Payable Retainage	\$1,726,652	28	**	**	**
Over-Billings	\$1,250,823	22	**	**	**
Cash Funding	\$5,004,497	83			
Total Cash/Days (Provided/Needed)	-\$1,324,882	-22			

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**BFA-1**

# Liquidity Indicator





# Liquidity Indicator

- Defining project cash flow
- Impact on the company liquidity
- Establishing good habits and processes
- Providing incentives to maintain the discipline



# Liquidity Indicator

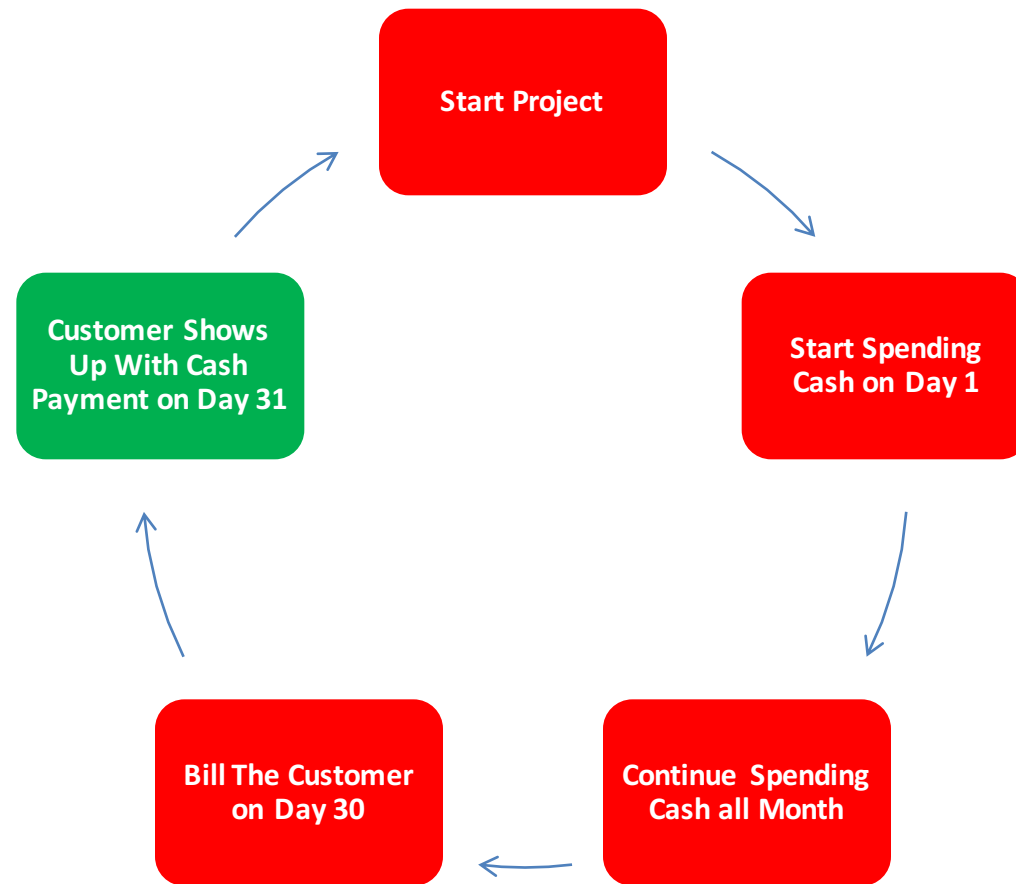
## (Days by Account; Cash Demand by Region)

Assets	Rocky Mountain Region	Southwest Region	San Diego Region	Southern California Region	Northern California Region
Accounts Receivable	55.9	75.5	58.5	60.0	65.1
Retainage Receivable	12.8	18.2	14.7	25.2	16.2
Under-Billings	0.9	7.8	7.7	8.3	3.7
Cash Conversion	69.6	101.6	80.9	93.4	85.0
<b>Liabilities</b>					
Accounts Payable	(22.3)	(19.3)	(20.3)	(18.7)	(27.0)
Accounts Payable Retainage	(2.1)	(1.6)	(1.8)	(2.7)	(8.1)
Over-Billings	(47.0)	(34.5)	(36.5)	(38.9)	(56.1)
Cash Funding	(71.4)	(55.4)	(58.6)	(60.3)	(91.2)
Total Cash/Days (Provided/Needed)	(1.8)	46.1	22.3	33.1	(6.2)

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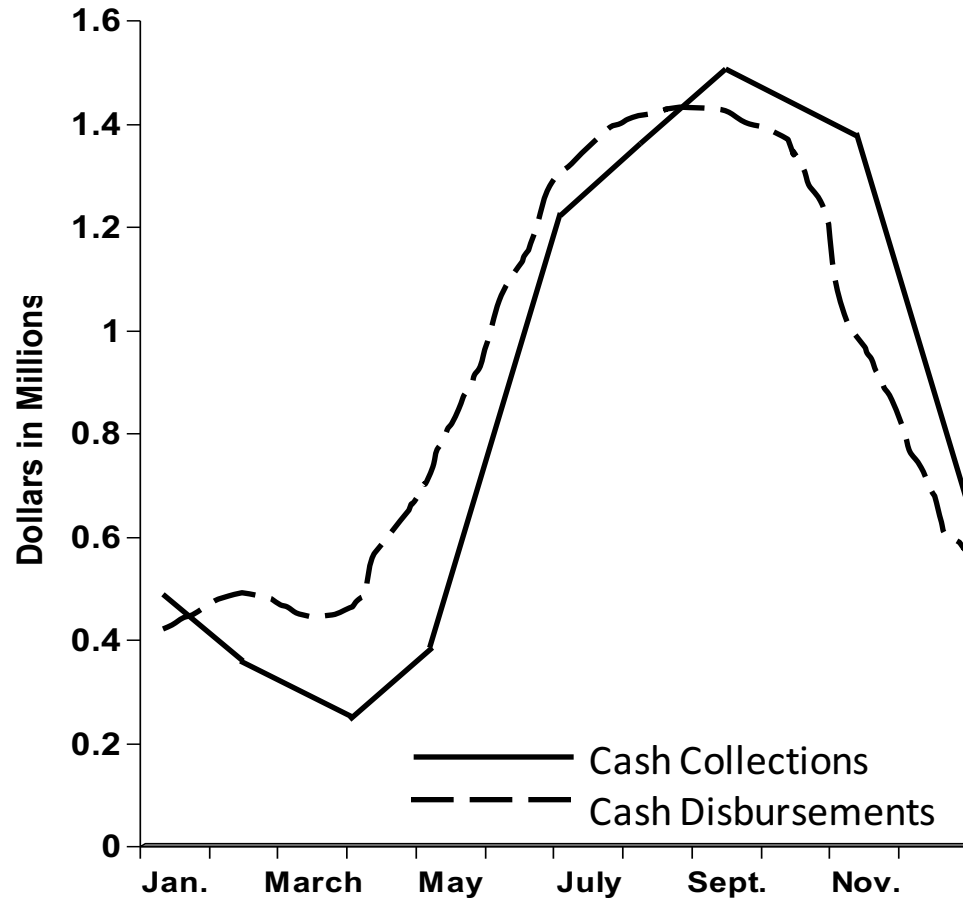
**BFA-1**

# Project Cash Flow





# The Cash Trap



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# Job Budget and Cash Flow Analysis

## Direct cost

Material	98,100	
Subcontracts	290,029	
Labor	102,085	
Equipment	73,600	
Other direct costs	<u>37,210</u>	
<b>Total direct costs</b>		<b>601,024</b>

## Overhead

On material and subs	6.38%	24,763	
On labor	25.32%	<u>25,848</u>	
Unadjusted overhead		50,611	
"M" factor	0.9087		
<b>Total overhead</b>			<b><u>45,990</u></b>

Break even		647,014
Operating profit at	2.50%	<u>16,590</u>
<b>Total price</b>		<b><u>663,604</u></b>

Retainage	10.00%
Opportunity Cost	12.00%

	<b>Month</b>	<b>Month</b>	<b>Month</b>	<b>Month</b>	<b>Month</b>	<b>Month</b>
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>

% Complete	3%	15%	25%	30%	15%	12%
Cumulative %	3%	18%	43%	73%	88%	100%
% Remaining	97%	82%	57%	27%	12%	0%

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# Budget and Cash Flow Alternatives (30-Day Terms)

	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9
Gross Billing	19,908	99,541	165,901	199,081	99,541	79,632			
Retainage Held	1,991	9,954	16,590	19,908	9,954	7,963			
Retainage Billed						<u>66,360</u>			
Net Billing	<u>17,917</u>	<u>89,587</u>	<u>149,311</u>	<u>179,173</u>	<u>89,587</u>	<u>138,030</u>			
Receipts:									
30-Day Terms		17,917	89,587	149,311	179,173	89,587	138,030		
Disbursements:									
Material (30)		2,943	14,715	24,525	29,430	14,715	11,772		
Subcontracts (30)		8,701	43,504	72,507	87,009	43,504	34,803		
Labor (0)	3,063	15,313	25,521	30,626	15,313	12,250			
Equipment (30)		2,208	11,040	18,400	22,080	11,040	8,832		
Other (30)		1,116	5,582	9,303	11,163	5,582	4,465		
Overhead (0)	<u>7,665</u>	<u>7,665</u>	<u>7,665</u>	<u>7,665</u>	<u>7,665</u>	<u>7,665</u>			
Total	<u>10,728</u>	<u>37,946</u>	<u>108,027</u>	<u>163,025</u>	<u>172,659</u>	<u>94,756</u>	<u>59,873</u>		
30-Day Terms Cash Flow									
Net	(10,728)	(20,029)	(18,441)	(13,714)	6,541	(5,169)	78,157		
Cumulative	(10,728)	(30,756)	(49,197)	(62,911)	(56,397)	(61,567)	16,590		



# Budget and Cash Flow Alternatives (60-Day Terms)

	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9
Gross Billing	19,908	99,541	165,901	199,081	99,541	79,632			
Retainage Held	1,991	9,954	16,590	19,908	9,954	7,963			
Retainage Billed						66,360			
Net Billing	<u>17,917</u>	<u>89,587</u>	<u>149,311</u>	<u>179,173</u>	<u>89,587</u>	<u>138,030</u>			
Receipts:									
60-Day Terms			17,917	89,587	149,311	179,173	89,578	138,030	
Disbursements:									
Material (30)		2,943	14,715	24,525	29,430	14,715	11,772		
Subcontracts (30)		8,701	43,504	72,507	87,009	43,504	34,803		
Labor (0)	3,063	15,313	25,521	30,626	15,313	12,250			
Equipment (30)		2,208	11,040	18,400	22,080	11,040	8,832		
Other (30)		1,116	5,582	9,303	11,163	5,582	4,465		
Overhead (0)	<u>7,665</u>	<u>7,665</u>	<u>7,665</u>	<u>7,665</u>	<u>7,665</u>	<u>7,665</u>			
Total	<u>10,728</u>	<u>37,946</u>	<u>108,027</u>	<u>163,025</u>	<u>172,659</u>	<u>94,756</u>	<u>59,873</u>		
60-Day Terms Cash Flow									
Net	(10,728)	(37,946)	(90,110)	(73,439)	(23,349)	84,417	29,714	138,030	
Cumulative	(10,728)	(48,673)	(138,783)	(212,222)	(235,570)	(151,153)	(121,440)	16,590	



# Budget and Cash Flow Alternatives (90-Day Terms)

	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9
Gross Billing	19,908	99,541	165,901	199,081	99,541	79,632			
Retainage Held	1,991	9,954	16,590	19,908	9,954	7,963			
Retainage Billed						<u>66,360</u>			
Net Billing	<u>17,917</u>	<u>89,587</u>	<u>149,311</u>	<u>179,173</u>	<u>89,587</u>	<u>138,030</u>			
Receipts:									
90-Day Terms				17,917	89,587	149,311	179,173	89,578	138,030
Disbursements:									
Material (30)		2,943	14,715	24,525	29,430	14,715	11,772		
Subcontracts (30)		8,701	43,504	72,507	87,009	43,504	34,803		
Labor (0)	3,063	15,313	25,521	30,626	15,313	12,250			
Equipment (30)		2,208	11,040	18,400	22,080	11,040	8,832		
Other (30)		1,116	5,582	9,303	11,163	5,582	4,465		
Overhead (0)	<u>7,665</u>	<u>7,665</u>	<u>7,665</u>	<u>7,665</u>	<u>7,665</u>	<u>7,665</u>			
Total	<u>10,728</u>	<u>37,946</u>	<u>108,027</u>	<u>163,025</u>	<u>172,659</u>	<u>94,756</u>	<u>59,873</u>		
30-Day Terms Cash Flow									
Net	(10,728)	(37,946)	(108,027)	(145,108)	(83,073)	54,555	119,300	89,587	138,030
Cumulative	(10,728)	(48,673)	(156,700)	(301,808)	(384,881)	(330,326)	(211,026)	(121,440)	16,590

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# Company Cost of Capital is 12% Annualized Rate

	Month <u>2</u>	Month <u>3</u>	Month <u>4</u>	Month <u>5</u>	Month <u>6</u>	Month <u>7</u>	Month <u>8</u>	Month <u>9</u>
Cost to finance on 30-day terms								
Monthly cost of money	(107)	(308)	(492)	(629)	(564)	(616)		
Cumulative	(107)	(415)	(907)	(1,536)	(2,100)	<u>(2,716)</u>		
Cost to finance on 60-day terms								
Monthly cost of money	(107)	(487)	(1,388)	(2,122)	(2,356)	(1,512)	(1,214)	
Cumulative	(107)	(594)	(1,982)	(4,104)	(6,460)	(7,971)	<u>(9,186)</u>	
Cost to finance on 90-day terms								
Monthly cost of money	(107)	(487)	(1,567)	(3,018)	(3,849)	(3,303)	(2,110)	(1,214)
Cumulative	(107)	(594)	(2,161)	(5,179)	(9,028)	(12,331)	(14,441)	<u>(15,656)</u>



# Pricing and Payment Terms Alternative Summary

	<u>30-Day Terms</u>	<u>60-Day Terms</u>	<u>90-Day Terms</u>
Desired operating profit	16,590	16,590	16,590
Total cost of money	(2,716)	(9,186)	(15,656)
Effective operating profit	13,875	7,404	934
Needed operating profit	19,306	25,776	32,246
Needed operating profit margin	2.90%	3.83%	4.75%
Needed sale price	666,319	672,790	679,260
Needed gross profit margin	9.80%	10.67%	11.52%
Needed direct cost markup	10.86%	11.94%	13.02%



# Schedule of Values – Project Cash Flow

	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month Totals
Gross Billing	19,908	99,541	165,901	199,081	99,541	79,632	-		
Retainage Held	1,991	9,954	16,590	19,908	9,954	7,963	-		
Retainage Billed							<u>66,360</u>		
Net Billing	<u>17,917</u>	<u>89,587</u>	<u>149,311</u>	<u>179,173</u>	<u>89,587</u>	<u>71,669</u>	<u>66,360</u>		
Receipts:									
30-Day Terms		17,917	89,587	149,311	179,173	89,587	71,669	66,360	<b>\$ 663,604</b>
Disbursements:									
Material (30)			2,943	14,715	24,525	29,430	14,715	11,772	
Subcontracts (30)			8,701	43,504	72,507	87,009	43,504	34,803	
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Overhead (0)		<u>7,665</u>	<u>7,665</u>	<u>7,665</u>	<u>7,665</u>	<u>7,665</u>	<u>7,665</u>		
Total	<u>-</u>	<u>10,728</u>	<u>37,946</u>	<u>108,027</u>	<u>163,026</u>	<u>172,660</u>	<u>94,756</u>	<u>59,872</u>	<b>\$ 647,015</b>
30-Day Terms Cash Flow									
Net		7,189	51,641	41,284	16,147	(83,073)	(23,087)	6,488	<b>\$ 16,589</b>
Cumulative	-	7,189	58,830	100,114	116,261	33,188	10,101	16,589	

# Use Aggressive Cash Management Strategies



- Objective
  - Identify the steps to aggressive cash management
- Timeline
  - One month to design education and training regimen
  - Six months to implement and observe measurable improvement
- Results Expected
  - Reduction in borrowing amounts and interest expense
  - Increase in accounts receivable collection speed
  - Improvement in profitability





# Steps in Cash Management Strategies

- Homework before bidding or negotiation
- Preconstruction prompt payment setup
- Eliminate underbillings
- Ensure prompt payment
- Last Resort: Collection



# Do Your Homework (1 of 3)

- Know the buyer and the players
- Investigate credit history
- Know the source of the funds
- Understand contract terms and conditions
- Evaluate credit risk
- Develop job cash flow (See Workshop 4 & 5 for example)



# Do Your Homework (2 of 3)

## Sources of Credit Information

- National Association of Credit Managers
  - <http://www.nacm.org/>
- Financial Statements
- Project Funding Agreement
- Clerk of the Court
  - [http://www.gov-resources.com/landingpages/court\\_record\\_search.html](http://www.gov-resources.com/landingpages/court_record_search.html)
  - <http://www.govcourtsrecords.com/>
- Dun & Bradstreet
  - <http://www.dnb.com/us/>
- Credit Bureau
  - [http://www.experian.com/business\\_services/](http://www.experian.com/business_services/)
- Banks
- Suppliers
- Other Contractors
- Other Customers



# Do Your Homework (3 of 3)

## Credit Risk Evaluation

- Establish a limit
- Monitor performance
- Revise ratings and limits regularly
- Reevaluate all creditors annually
- Define the risk groups
- Use credit applications when appropriate
- Investigate credit history
- Appraise your risk



# Preconstruction Prompt Payment Setup

- Reconfirm financial arrangements and source of funds
- Be familiar with documentation and substantiation required
- Chart the owner's receipt and approval process
- Meet the players
- Determine the type of requisition required



# Eliminate Underbillings (1 of 2)

- Bill aggressively upon completion of project milestones
- Review each job that contributes significantly to the balance of underbillings:
  - Review each phase against the schedule of values to determine why billings are not keeping up with costs
- **Get change orders processed and paid!**



# Eliminate Underbillings (2 of 2)

- Unbalance the bid to get costs billed before they are incurred
- Areas such as mobilization typically do not have enough money in area of the budget
  - So ... load the job with mobilization
- Measure indicating an excessive balance is when Underbillings exceed ten days of sales



# Ensure Prompt Payment

- Bill all work on time!
- Ensure accuracy
- Establish most expeditious method for receiving check
- Obtain authorized approval prior to billing
- Get the first check on time!





# Last Resort: Collecting Receivables

- Create and communicate formal collection system
- Assign individual responsibility
- Review aged accounts receivable weekly
- Develop collection priorities
- Obtain a commitment to pay
- Know your legal remedies and recourse



# Best Practices for Accounts Receivable – Does Your Company Have ... (1 of 2)

A well-documented credit and collection policy that is understood by all employees and customers?

Yes

No

An established procedure to determine a customer's credit limit?

Yes

No

Its own terms of sale?

Yes

No

An individual that regularly reviews the credit status of existing customers?

Yes

No

A system for immediate identification of non-payment?

Yes

No



# Best Practices for Accounts Receivable – Does Your Company Have ... (2 of 2)

- |   |                                     |                                    |
|---|-------------------------------------|------------------------------------|
| Monthly or weekly aged accounts receivable reports?                                 | <b>Yes</b> <input type="checkbox"/> | <b>No</b> <input type="checkbox"/> |
| Weekly status report and follow-up action list on all overdue accounts?             | <b>Yes</b> <input type="checkbox"/> | <b>No</b> <input type="checkbox"/> |
| An individual assigned to collect each account?                                     | <b>Yes</b> <input type="checkbox"/> | <b>No</b> <input type="checkbox"/> |
| Specific plans for legal action where required to collect accounts?                 | <b>Yes</b> <input type="checkbox"/> | <b>No</b> <input type="checkbox"/> |
| Former customers for whom you refuse to do work because of poor payment experience? | <b>Yes</b> <input type="checkbox"/> | <b>No</b> <input type="checkbox"/> |



# Summary of Financial Management for Construction Managers

- Construction Industry Reporting
- Project Management and Control
- Cash Flow Enhancement
- Risk Mitigation
- Increasing Organizational Value



# Presenter



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Building successful construction organizations is Ken's passion. Ken, a Principal with FMI, has been implementing profitable growth strategies with construction companies across the country for the past 35 years. His competitive drive, industry experience and unique background blend strategy development, financial mastery and organizational efficiency into establishing market leadership for contractors.

Clients experience growth in profitability and value working with Ken. His personable style and in-depth understanding of his clients and the construction industry have enabled him to sustain long-term client relationships. Ken currently serves as a Director and Board Member for several of his clients.

His extensive industry knowledge, engaging sense of humor and creative approach to presentations make him a highly sought after speaker. He has spoken at Trade Associations, Industry Conferences, Corporate Annual Meetings and Software Conventions. Clients retain Ken to provide numerous in-house training courses on strategy development, customer satisfaction, productivity improvement, financial management and organization development.

Ken holds a bachelor's degree in accounting from Michigan State University. Prior to joining FMI, Ken worked for a National Public Accounting firm in New York City before returning to Colorado to build an accounting firm specializing in the construction industry.



# About FMI

FMI is a leading provider of management consulting, investment banking<sup>†</sup> and research to the engineering and construction industry. We work in all segments of the industry providing clients with value-added business solutions, including:

- Strategic Advisory
- Market Research and Business Development
- Leadership and Talent Development
- Project and Process Improvement
- Mergers, Acquisitions and Financial Consulting<sup>†</sup>
- Compensation Benchmarking and Consulting
- Risk Management Consulting

Founded by Dr. Emol A. Fails in 1953, FMI has professionals in offices across the U.S. We deliver innovative, customized solutions to contractors, construction materials producers, manufacturers and suppliers of building materials and equipment, owners and developers, engineers and architects, utilities and construction industry trade associations. FMI is an advisor you can count on to build and maintain a successful business, from your leadership to your site managers.

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<sup>†</sup> Investment banking services provided by FMI Capital Advisors, Inc., a registered broker-dealer and wholly owned subsidiary of