



Elements of Cash Flow Management and Getting Paid – Turning Project Managers into Business Managers

**Construction Financial Management Association
Associated Subcontractors of Massachusetts**

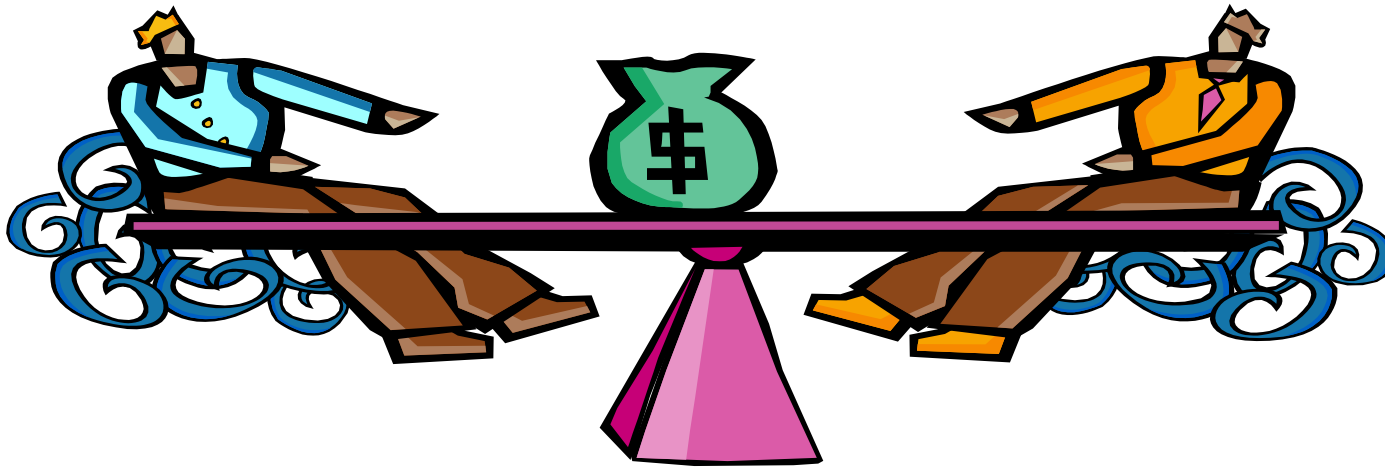
**Presented by:
Dave Berry**

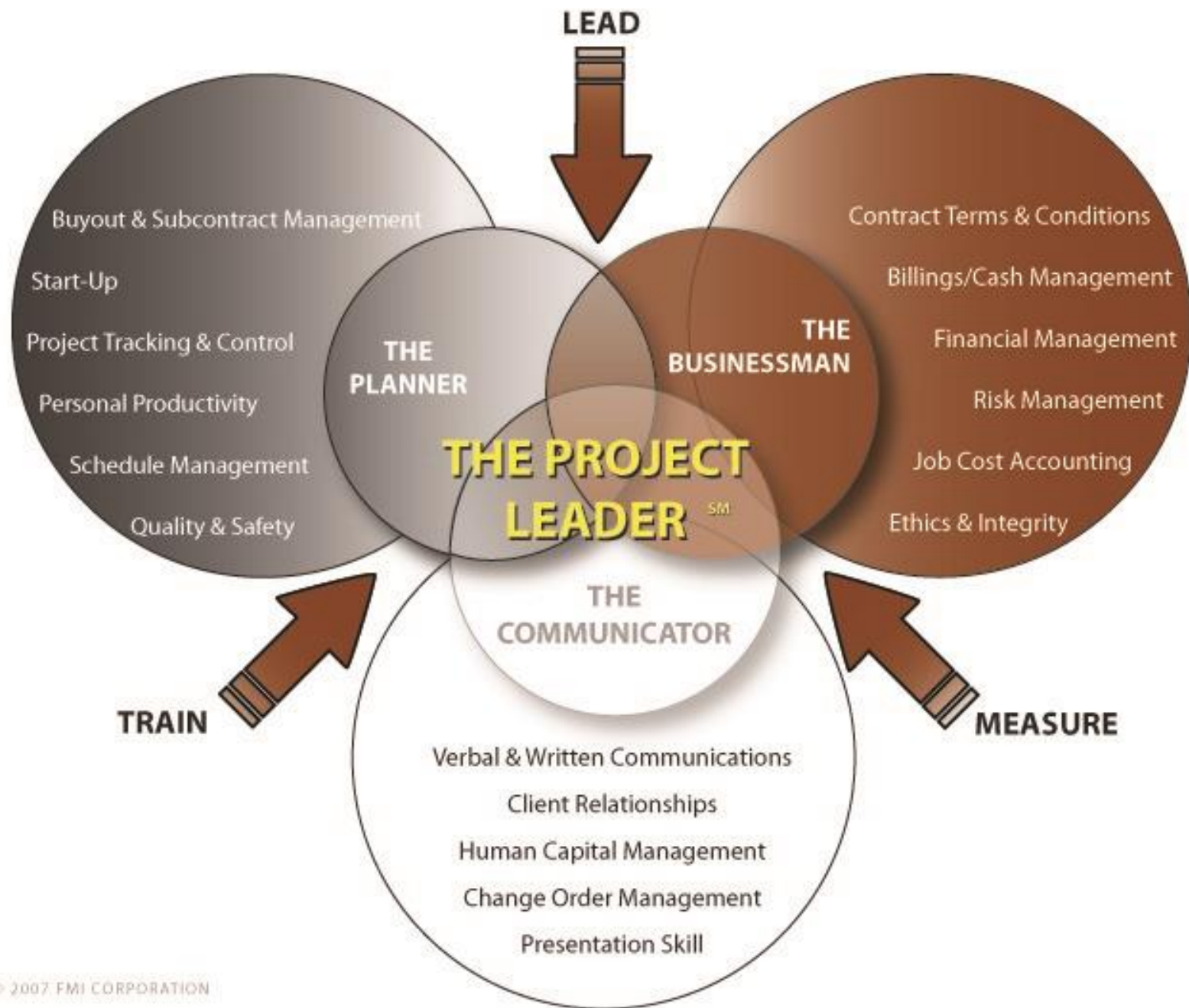
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Developing a Culture of Project Leaders

Builders

Business
Managers





Learning objectives

- **Maintain a positive cash flow for projects and the company**
- **Continually monitor and act on the current cash situation**
- **Close out all projects quickly and completely**
- **Collect outstanding receivables and retainage**
- **Complete all contract requirements to ensure timely release of cash**

What is the common theme with these firms?

- Encompass Services Group
- Guy F. Atkinson
- IT Group
- J.A. Jones
- Morrison Knudsen
- Railworks Corporation
- Stone & Webster
- JWP Group
- Raymond International
- Modern Continental
- The Austin Company
- Dillingham Construction
- Morse Diesel
- Fishback and Moore

Most Often Cited Causes

- **Strategic**

1. Unrealistic growth/over expansion
2. Unfamiliar new markets and/or entry into new types of construction
3. Volume obsession
4. Poor project selection/bad contracts
5. Unrealistic promises

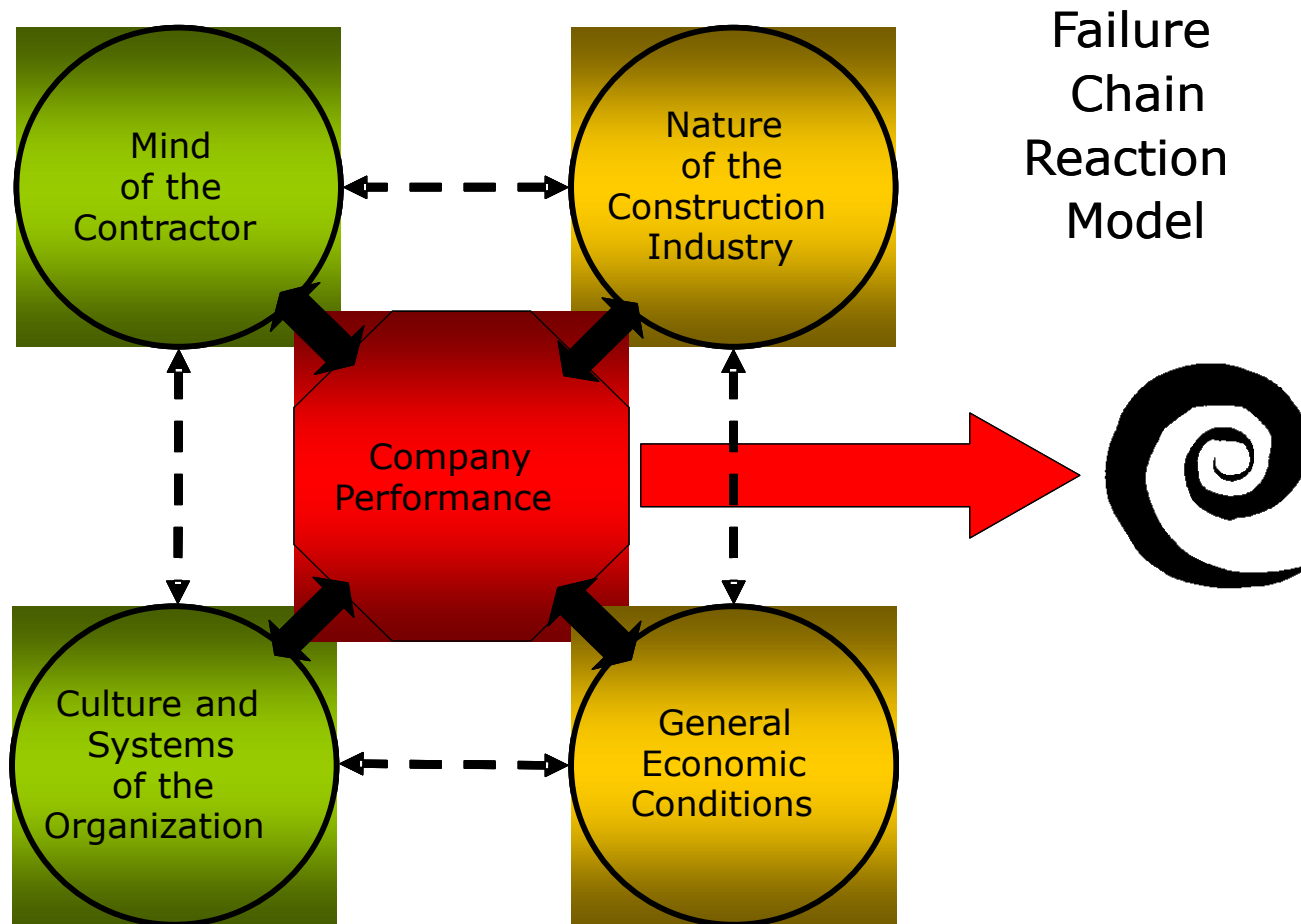
- **Organizational**

1. Insufficient capital/profits
2. Poor sales skills/inadequate marketing
3. Lack of business knowledge/poor financial management
4. Project losses/poor field performance
5. Poor leadership/poor leadership transfer
6. Owner court battles/owner bankruptcy

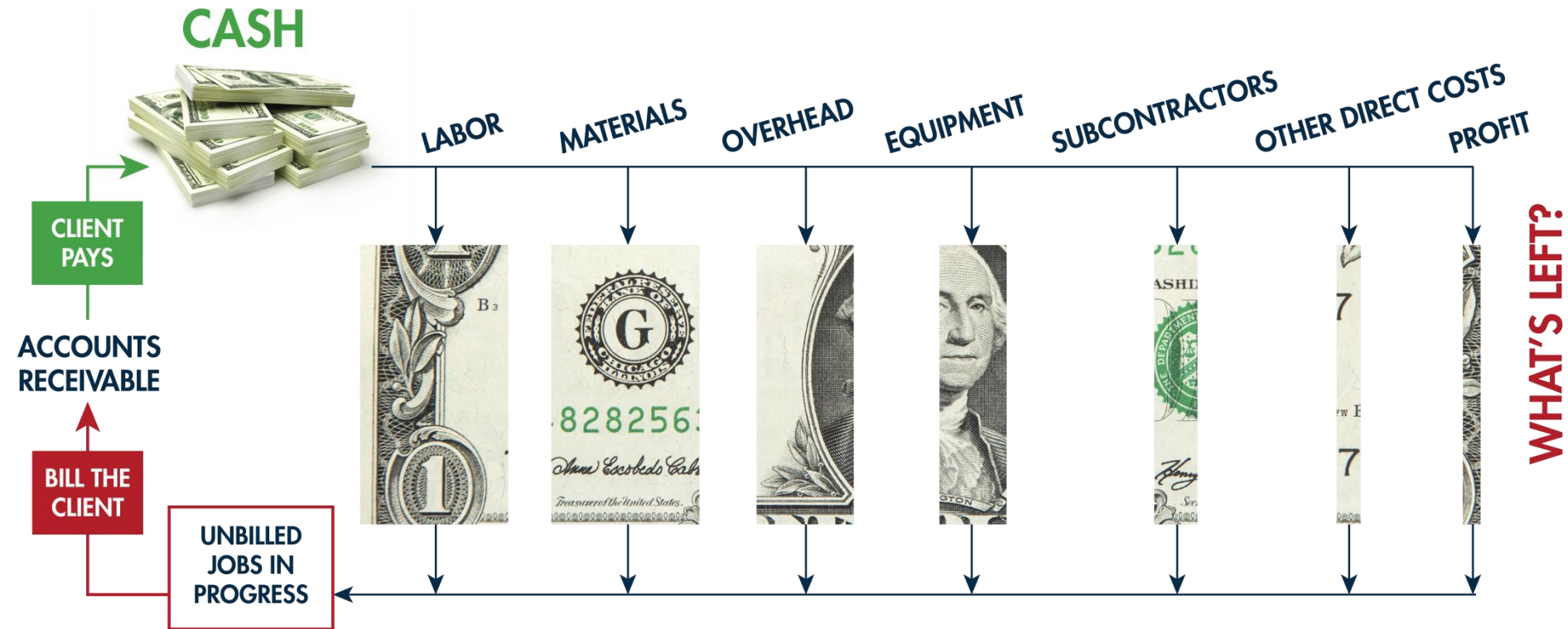
- **Uncontrollable**

1. Industry/economic weakness
2. Banking and surety changes

Contractor Failure Chain



The cash flow cycle



Budget and cash flow alternatives (30-day terms)

	Month	Month	Month	Month	Month	Month	Month	Month	Month
	1	2	3	4	5	6	7	8	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		

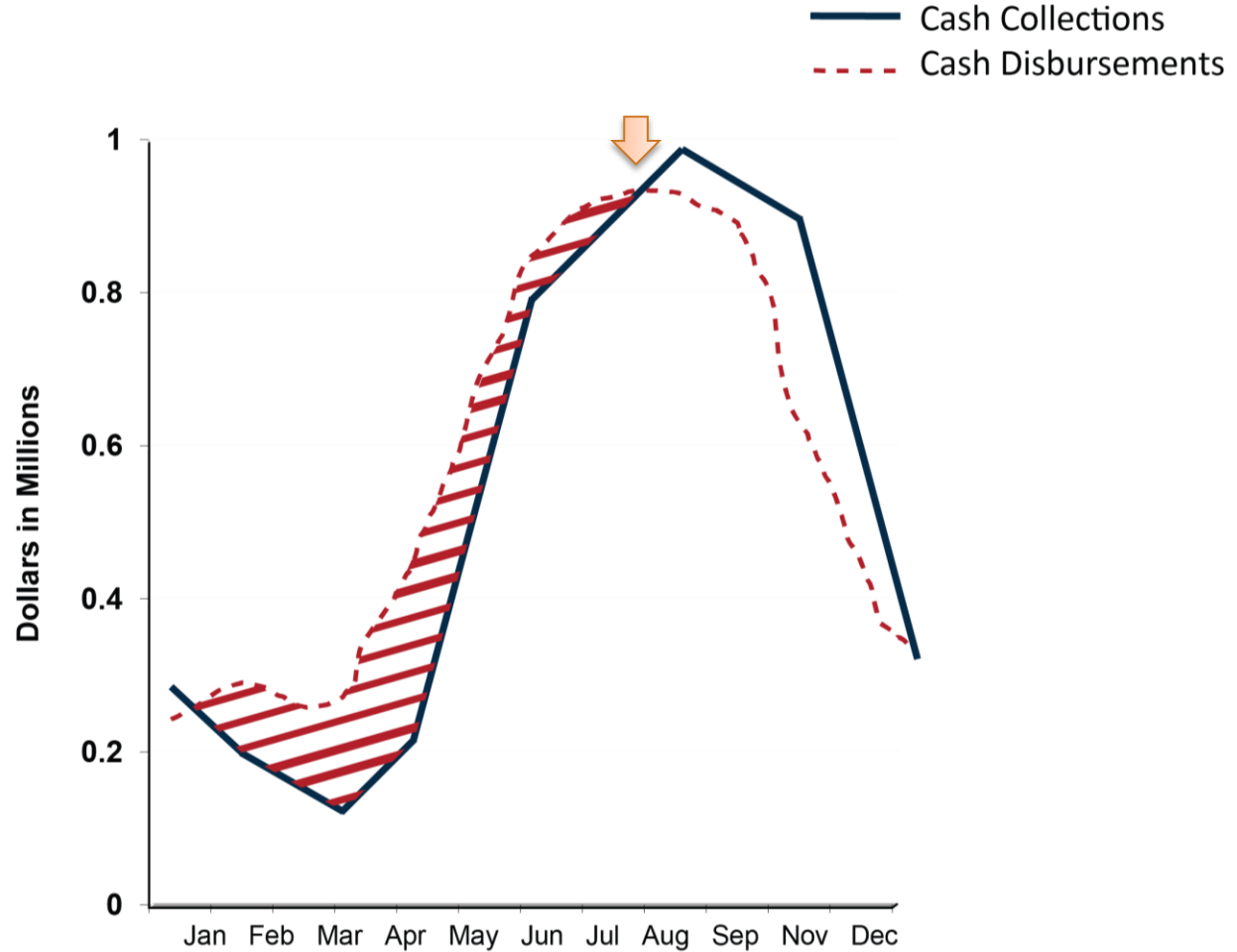
Budget and cash flow alternatives (60-day terms)

	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	<u>1,991</u>	<u>9,954</u>	<u>16,590</u>	<u>19,908</u>	9,954	<u>7,963</u>			
Retainage Billed						<u>66,360</u>			
Net Billing	17,917	89,587	149,311	179,173	89,587	138,030			
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)	<u>3,063</u>	<u>15,313</u>	<u>25,521</u>	<u>30,626</u>	<u>15,313</u>	<u>12,250</u>			
Equipment (30)		<u>2,208</u>	<u>11,040</u>	<u>18,400</u>	<u>22,080</u>	<u>11,040</u>	<u>8,832</u>		
Other (30)		1,116	5,582	9,303	11,163	5,582	4,465		
Overhead (0)	7,665	7,665	7,665	7,665	7,665	7,665			
Total	10,728	37,946	108,027	163,025	172,659	94,756	59,873		
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	

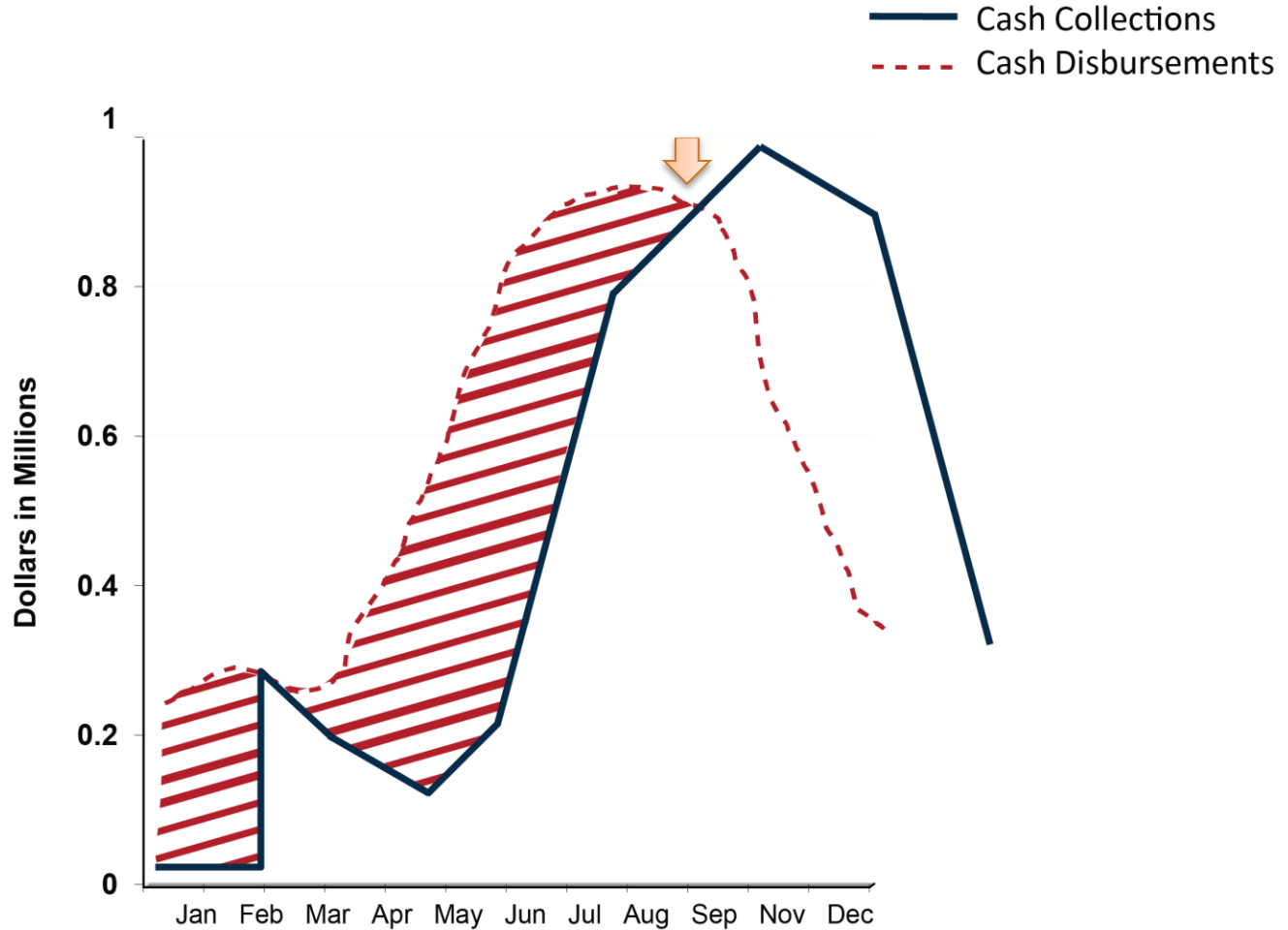
Budget and cash flow alternatives (90-day terms)

	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	<u>1,991</u>	<u>9,954</u>	<u>16,590</u>	<u>19,908</u>	9,954	<u>7,963</u>			
Retainage Billed						<u>66,360</u>			
Net Billing	17,917	89,587	149,311	179,173	89,587	138,030			
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Material (30)		2,943	14,715	24,525	29,430	14,715	11,772		
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Equipment (30)		<u>2,208</u>	<u>11,040</u>	<u>18,400</u>	<u>22,080</u>	<u>11,040</u>	<u>8,832</u>		
Other (30)		1,116	5,582	9,303	11,163	5,582	4,465		
Overhead (0)	7,665	7,665	7,665	7,665	7,665	7,665			
Total	10,728	37,946	108,027	163,025	172,659	94,756	59,873		
60-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

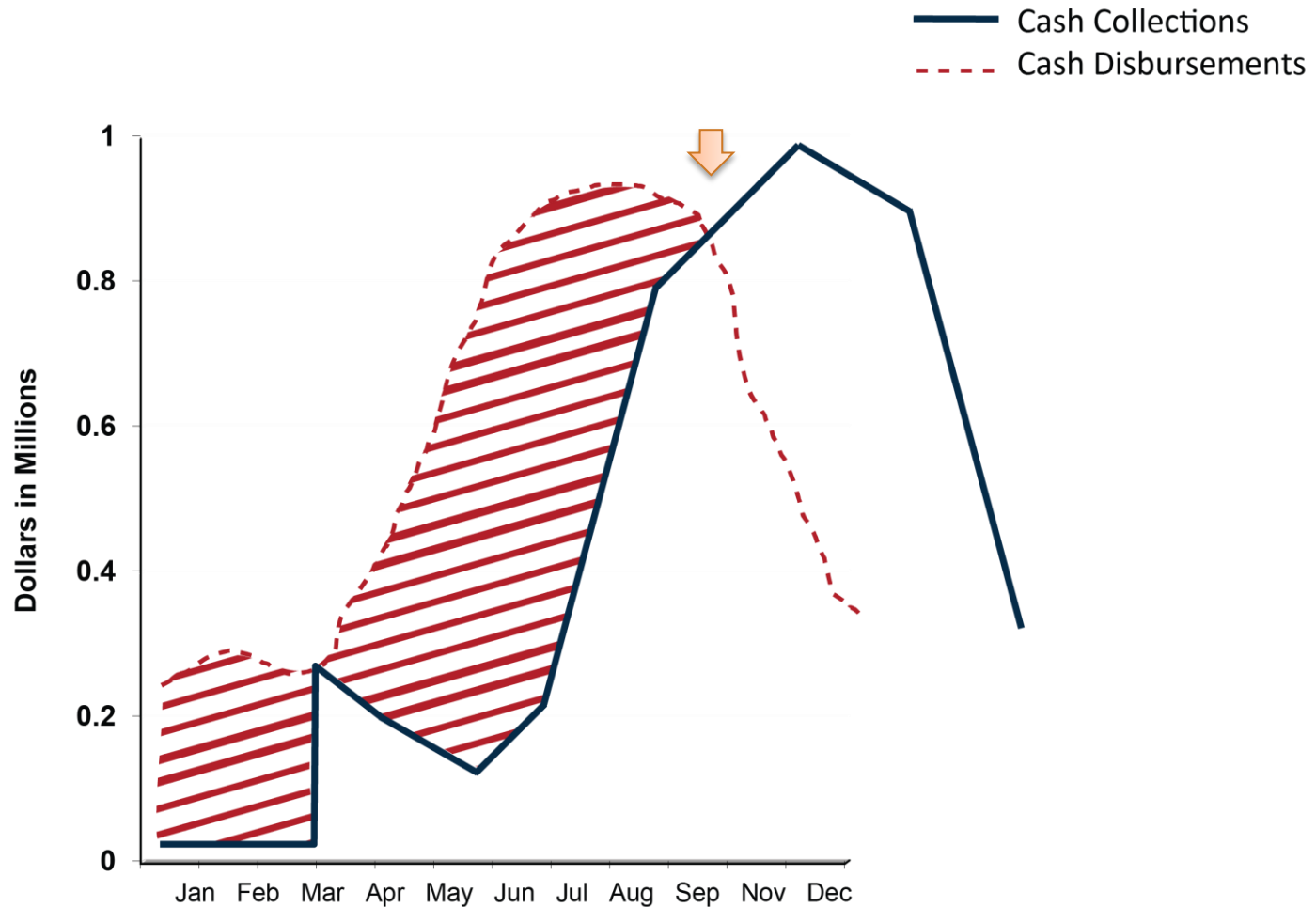
The cash trap



The cash trap – 30-day terms



The cash trap – 60-day terms



In this session, we will:

Discuss the cash-flow cycle and the impact of receivables in our industry

Identify proactive collections strategies

Examine the financial impacts of change orders

Discuss the importance of timely close-out



Steps in cash management strategies



Does your company have...

	YES	NO
A well-documented credit and collection policy that is understood by all employees and customers?		
An established procedure to determine a customer's credit limit?		
Its own terms of sale?		
An individual that regularly reviews the credit status of existing customers?		
A system for immediate identification of non-payment?		

Does your company have...

	YES		NO
Monthly or weekly aged accounts receivable reports?			
Weekly status report and follow-up action list on all overdue accounts?			
An individual assigned to collect each account?			
Specific plans for legal actions where required to collect accounts?			
Former customers for whom you refuse to work because of poor payment experience?			

Do your homework

- Know the buyer and the players
- Investigate credit history
- Understand contract terms and conditions
- Develop job cash flow
- Establish ground rules
- Educate the buyer if necessary or possible
- Know the available remedies and safeguards
- Have an aggressive billing and collection policy
- Know the source of funds
- Determine existence and applicability of existing laws

Sources of credit information

- **Dun & Bradstreet**
- **Credit bureau**
- **Banks**
- **National Association of Credit Managers**
- **Other contractors**
- **Other customers**
- **Suppliers**
- **Financial statements**
- **Company brochures**
- **Project funding agreement**
- **Clerk of the court**
- **LMCC and other funds**

Credit risk evaluation

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

Pre-construction payment requirements (1 of 2)

- **Reconfirm financial arrangements and source of funds**
- **Plan ahead with the project manager**
- **Chart the owner's receipt and approval process**
- **Meet the players**

Pre-construction payment requirements (2 of 2)

- **Determine the type of requisition required**
- **Review schedule of values form, if appropriate**
- **Be familiar with documentation and substantiation required**
- **Identify authority and timing for approval and certification**
- **Ensure agreement on dates submission and time of payment**

Prompt payment considerations

- Bill all work on time
- Ensure accuracy
- Train your subs and suppliers
- Obtain authorized approval prior to billing
- Deliver the invoice expeditiously
- Follow the invoice
- Establish most expeditious method for receiving check
- Receive payment and respond
- Consider sending statements in addition to invoices
- Get the first check on time!!!



Accounts receivable – asset or liability

- **An average of 30% to 50% of a contractor's total assets is in accounts receivable**
- **Management of your receivables in this era of competition and high capital costs is exceedingly important**
- **Do we staff this appropriately?**
- **Do we hold project staff accountable?**
- **Do we spend enough leader time?**

Collecting receivables (1 of 2)

- **Create and communicate formal collection system**
- **Assign individual responsibility**
- **Match receipts to accounts receivable daily**
- **Review aged accounts receivable weekly**
- **Develop collection priorities**

Collecting receivables (2 of 2)

- Obtain a “commitment to pay”
- Develop a follow-up system for past due accounts
- Develop effective communication tools
- Communicate nonpayment within your organization
- Write off bad debts
- Know your legal remedies and resources

Recovery of past due receivables

<u>Days Past Due</u>	<u>Percent Recovered</u>
30 Days	97%
90 Days	90%
120 Days	80%
180 Days	67%
1 Year	45%
2 Years	23%
3 Years	12%
Remember: Old receivables get older!!!	

Why invoices are held up (1 of 2)

- **Defective work not remedied**
- **Third-party claims filed**
- **Failure of contractor to pay subs or vendors**
- **Evidence that the work can't be completed for the unpaid balance**
- **Damage to owner or other contractor**

Why invoices are held up (2 of 2)

- Evidence that work won't finish in time and remaining balance wouldn't cover anticipated liquidated damages
- Persistent failure to perform the work in accordance with the contract
- Insurance/bonding requirements not met
- Disputed quantities or value of work billed or errors on invoice
- Necessary documentation not provided (i.e., affidavits, certifications, approvals, etc.)

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 10 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**

Results of reducing average age of accounts receivable

$$\text{Average Age of Accounts Receivable} = \frac{([\text{Beginning A/R} + \text{Ending A/R}] / 2) \times \text{Days in Period}}{\text{Period Sales}}$$

Average Age	50 days	45 days	40 days
Average Accounts Receivable	\$1,650,000	\$1,480,000	\$1,315,000
Period Sales	\$12,000,000	\$12,000,000	\$12,000,000
Days in period	365	365	365

- A one-day reduction in the average age of accounts receivable is equivalent to an additional \$33,500 in cash
- A 10-day reduction provides the company with an additional \$335,000 in cash!



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