CORPORATE FINANCE

Landscape Business Management Series

NATIONAL
ASSOCIATION OF
LANDSCAPE
PROFESSIONALS

LEARNING OBJECTIVES:

The information provided in this publication is intended to help you:

- Analyze an income statement.
- Analyze a balance sheet.
- Understand changes in financial positions.
- Apply key financial ratios.
- Evaluate your company's financial performance.
- Compare your company's financial performance to industry benchmarks.
- Make management decisions based on financials.
- Apply credit management procedures.
- Understand the business cycle.
- Understand and determine what necessary general ledger accounts are needed for your business.
- Manage your working capital and finances.
- Apply concepts of inventory management.
- Construct and use budgets.
- Make cash flow projections.
- Understand the principles of risk management.
- Work effectively with your financial partners.
- Understand lease vs. buy decisions.

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CHAPTER 1: UNDERSTANDING FINANCIAL STATEMENTS

INTRODUCTION

Developing a financially successful venture is demanding work and the path is full of pitfalls. Managers can ease the process by knowing where their company wants to go, how to get there, and where they are currently. For businesses, this translates into having a strategic plan, a budget, and accurate and current financial statements.

Evaluating the financial health of a business requires an understanding of its current financial condition, how that is changing over time, and how the results compare to similar businesses. Not understanding a business's financial condition can lead to failure, as illustrated in Table 1.

Table 1: *Common Conditions That Lead Companies To Fail*

CONDITION	CONSEQUENCE
Not having a financial plan	Not being able to reach company goals
Poor cash management	"You pay taxes on profit, but you run your business with poor cash flow "
Not managing accounts receivable or payable	Too much inventory and too many uncollected accounts receivable lead to too many accounts payable and no cash
Not knowing the cost of production	Bidding below the real cost of the job and losing money on the project
Not controlling expenses	Losing money
Improper financing	Using working capital to fund long-term assets
Unmanaged growth	Uncontrolled growth, expenses, finances

To avoid these problems, managers should have a thorough understanding of the items outlined in Table 2. This financial checklist is from the Small Business Cycle Financial Checklist.

Table 2: *Financial Status Checklist*

DAILY – WEEKLY
☐ Balance of cash on hand
☐ Bank balance
☐ Daily summaries of sales and cash receipts
☐ Any errors or problems that have occurred in collections
☐ A record of monies paid out, both by cash and by check, or electronic payments
WEEKLY – BIWEEKLY
☐ Accounts receivable
☐ Accounts payable
☐ Payroll
☐ Taxes
MONTHLY
☐ Confirm journal entries are classified according to appropriate account numbers.
☐ Ensure profit and loss statement for the month is available within a reasonable time, usually 10 to 15 days following the close of the month.
☐ Ensure the balance sheet accompanies the profit and loss statement.
☐ If you engage an outside accounting service, provide records, receipts, disbursements, bank accounts, and journals to the accounting firm.
☐ Reconcile bank account each month so that any variations are recognized, and necessary adjustments are made.
☐ Balance the petty cash account.
☐ Review federal tax requirements and make deposits.
☐ Review and age accounts receivable so that slow and bad accounts are recognized and handled.
☐ Inventory control is worked to remove dead stock and order new stock.

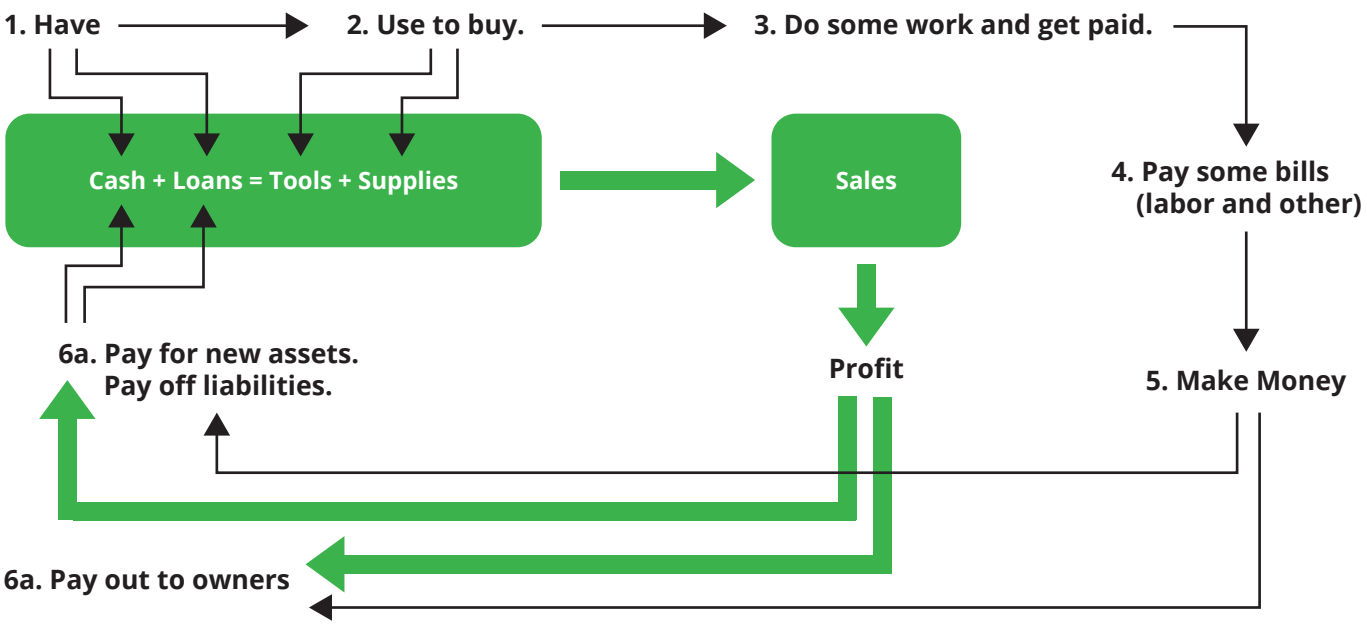
BUSINESS CYCLE

A business exists to produce goods or services that are sold to generate profit (cash) for the owners. This profit can be left in the company and reinvested or taken out of the company by way of dividends. Table 3 outlines the business cycle of a landscape company. We assume that while you really enjoy what you are doing, the basic reason for operating a business is earn money to feed your family, to enjoy life, and to fund your retirement objectives.

Table 3: *How the Business Cycle Works*

BUSINESS CYCLE	EXAMPLE
1. Identify a need, job, or service that needs to be done.	Mow lawns.
2. Identify potential customers.	A new condominium complex just opened.
3. Buy tools with money you have and some that you borrow.	Buy a lawn mower and a pickup truck.
4. Approach potential customers.	Talk to the condo developers/management.
5. Negotiate a price for the work to be done.	Discuss the scope of work and possibly get a deposit.
6. Pay for the expenses to do the work.	Mow the lawn, load the clippings onto the truck, and take clippings to an organic waste dumping site. Pay for fuel for the truck, the dumping charge on the clippings, and the salaries of the people who do the work.
7. Collect the money for the job.	Take payment by any means acceptable to the customer such as cash, check, credit card, or electronic transfer.
8. Pay overhead.	Pay for rent, equipment repairs, taxes, etc.
9. Determine your profit.	
10. With your profit you: a. Invest in the business. b. Pay back the money you borrowed. c. Take an owner's draw dividend.	a. Buy a rake. b. Pay the bank. c. Buy yourself a fishing rod.
11. As this cycle is repeated, business grows.	

Figure 1: *A Simple Business Cycle*



See Figure 1 for an illustration of a simple business cycle.

ACCOUNTING TERMS AND PRINCIPLES

The financial information of a business is summarized in a series of statements commonly referred to as financial statements or accounting statements. Below are some commonly used accounting terms.

Accounting Period. The length of time covered by a financial statement or operation. It could be weekly, monthly, quarterly, or yearly.

Accounts Payable. Tracks money owed to creditors, such as bank loans, unpaid bills, invoices, debts to suppliers, credit cards, or lines of credit. Also known as liabilities.

Accounts Receivable. Tracks money owed to the business by its debtors or customers. Accounts receivables are considered assets.

Accrual Basis Accounting. Records revenue- and expense-related items as they occur.

Administrative Expense. Expenses related to the support of ownership, office operations, information processing.

Assets. Items of value that a business owns or controls. Cash, real estate, equities, and commodities are all assets.

Balance Sheet. A standard financial statement specifying the business' current state regarding assets, liabilities, and equity.

Break-Even Point. The point at which profit is neither made nor lost.

Budget. A projection of the impact of coming events for a particular timeframe in the development of income and expense estimates.

Capital. Any asset or resource a business can use to generate revenue.

Cash Basis Accounting. Records revenues and expenses when the money involved in each transaction officially changes hands.

Cash Flow. Describes the balance of cash that moves into and out of a company during a specific accounting period.

Chart of Accounts. A main list of all accounts in an organization's general ledger. The five main types of accounts are assets, equity, expenses, liabilities, and revenues. Each has numerous sub-accounts or line items.

Cost of Goods Sold. Describes the total costs a company incurred in creating a product or service, including materials, labor, and overhead.

Credit. Money leaving an account. A credit entry increases liability, revenue, or equity accounts, or it decreases an asset or expense account.

Current Assets. All assets on a balance sheet that can be converted into cash quickly. Examples include cash, accounts receivable, and inventory.

Current Liabilities. Debts or obligations of the company that are due in the short term. Examples are accounts payable, credit card payables, payroll taxes, credit lines payable.

Debit. Money coming into an account. It increases an asset or expense account and decreases a liability or equity account.

Departmentalization. The practice of separating your income statement into the various profit centers or types of work performed by your company.

Depreciation. Applies to a class of assets known as fixed assets. When fixed assets decline in value, accountants record those declines as depreciation.

Dividends. Portions of the company profits voluntarily paid out to investors.

Double-Entry Bookkeeping. Records each financial transaction twice, once as a credit and once as a debit. When the sum total of all recorded debits and credits equals zero, the accounting books are considered balanced.

Earned Revenue. The value of what you sold and produced in your business during a certain time period.

EBITDA. Earnings before interest, taxes, depreciation, and amortization. Another term for cash flow.

Equipment Expense. Costs associated with ownership, repair, and operation of your fleet of equipment and vehicles.

Equity. Describes the amount of money that would remain if a business sold all its assets and paid off all its debts.

Fixed Cost. A cost that stays the same regardless of increases or decreases in a company's outputs or revenues. Examples include rent, employee compensation, and property taxes.

Gross Profit. Defines the value of the products and services sold by a business before factoring in the cost of goods sold.

Income Statement. A financial document that specifies the total revenues earned by a company in a given accounting period, minus all expenses incurred during the same period. Also known as an earnings statement, profit and loss statement, statement of financial results.

Inventory. Describes the assets that a company intends to liquidate through sales operations.

Liability. Occurs when an individual or business owes money to another person or business. Bank loans and credit cards are examples of liabilities. Current liabilities are short-term, due within a month or less than one year; long-term liabilities are one year or longer.

Liquidity. Describes the relative ease with which an asset (often called liquid assets) can be sold for cash.

Net Profit. The amount of money left over after subtracting the costs of taxes and goods sold from the total value of all products or services sold during an accounting period. Also known as net income.

Overhead. Expenses necessary to sustain business operations that do not directly contribute to a company's product or service. Examples are rent, marketing and advertising, and administrative costs.

Operating Expenses. Expenses used to run the business that are not directly associated with production or service. Examples include office rent, utilities, marketing and sales, and office staff salaries. These may also be called fixed costs.

Profit. The difference between the price you sell your service or product for, and the expenses associated with producing that item or service.

Retained Earnings. The profits that remain after the business has paid all costs in a given accounting period.

Return on Investment. Usually expressed as a percentage, describes the level of profit or loss generated by an investment.

Revenue. The income a business earns by selling products or services associated with its main operations.

Variable Costs. Expenses that can change depending on the volume of goods or services sold.

The following internet sites are sources of information related to financial terms and definitions:

+ Global Investor Glossary www.finance-glossary.com
+ Excellence in Financial Management www.exinfin.com
+ Investopedia www.investopedia.com

GENERALLY ACCEPTED ACCOUNTING PRINCIPLES (GAAP)

The basis of financial statements is to report the financial condition of a company in a specified format and according to the rules that apply to all businesses. This allows for an accurate assessment of an individual business as well as a comparison to

other enterprises. These rules are called Generally Accepted Accounting Principles or GAAP.

GAPP, as well as the International Financial Reporting System (IFRS) and Canadian Accounting Standards for Private Enterprises (ASPE) all represent rules developed by the accounting profession to ensure that the information in financial statements is reported consistently across businesses and accurately reflect the financial condition of a business.

CASH ACCOUNTING VERSUS ACCRUAL ACCOUNTING METHODS

The two basic methods of tracking a company's accounting are the **cash method** and the **accrual method**. The cash accounting method reports income and expenses only when cash is received, or a payment is made. Accrual accounting reports income and expenses when they occur, regardless of when the cash is received, or payment is made.

Although cash accounting is a less complex process, it may not provide an accurate measure of profitability. For example, assume that you complete a job in December. During the job, you rented and paid for some equipment. At the end of the job, you sent the customer an invoice and you received a check in mid-January.

Using cash accounting, the income statement for December would record the expenses for the job (equipment rental) but would not include the revenue. From this, you might assume that you lost money on the job. Nevertheless, the income statement for January would include the revenue received but not the expenses incurred to generate the revenue. From this, you might conclude that the job was more profitable than it is.

The accrual method is based on the matching principle: The revenue from a job must be reported at the same time as the costs incurred to do the job, rather like using your credit card. Even though you have purchased something, the money has not left your account yet.

ACCOUNTING CYCLE

The accounting cycle typically begins with a transaction and tracks a company's finances through a series of steps that includes:

+ A transaction occurs (i.e., a sale). Details of the transaction are recorded in a journal.
+ Journal entries are summarized in a book of accounts called the general ledger.
+ All of the accounts in the general ledger are totaled to create a trial balance (this includes entries made at month end for bank interest and automatic withdrawals).
+ Adjustments are made to the trial balance to produce the financial statements.

FINANCIAL STATEMENTS

Financial statements are the most common place to begin looking at a business's financial condition. This series of reports is often produced at the end of an accounting period (at least once a year, but usually monthly) and summarizes what has happened financially in the business during that time period. A set of financial statements consists of an income statement, balance sheet, and changes in financial position statement, often called a cash flow statement. It is important to note that these components are linked; the entries in the changes in financial position component are calculated from the income statement and balance sheet.

Income Statement

An income statement (or profit and loss statement) reports the activity during the period. It compares the sales during the period with the expenses incurred to generate them (see Tables 4 and 5).

The income statement answers the big question, "How profitable is the business?" and, in doing so, it looks at the following specific questions:

+ What revenue was generated by the goods or services sold?
+ What was the cost of buying or making the goods or services that sold?
+ What were the costs related to marketing the goods and services and administering the business?
+ What were the financing costs (interest costs)?
+ What was the cost of taxes?

The business owner can see the trends in their business by looking at changes in specific areas of the income statement between periods. The most important trends to note are changes in the gross profit over time and, of course, changes in the net profit.

Changes in the gross profit reflect the efficiency with which your projects are being managed and bid. Since the gross profit does not include administrative overhead, it provides a picture of the revenue-generating operations. For example, if the sales between two periods are equal but the gross profit has declined, this indicates that the cost of doing the work has increased. Or, if the sales are constant but the gross margin has increased, then

Table 4: *Simple Income Statement*

Sales – Cost of Goods Sold (COGS) =	← **Operating Activities**
Gross Margin / Profit	
Gross Margin / Profit – Marketing and Selling Expenses – Administrative (operating) Expenses =	← **Operating Activities**
Operating Income (Earnings Before Interest and Taxes – EBIT)	
EBIT – Interest Expenses =	← **Financing Activities**
Earnings Before Taxes	
Earnings Before Taxes – Taxes =	← **Financing Activities**
Net Profit	

the work is being conducted more efficiently or goods are being purchased at better prices. Changes in net profit while gross profit remains constant or is the same percentage of sales as previous periods indicate changes in the administrative overhead of the company.

Note that working on an accrual basis, reporting a positive net income does not mean that we have any cash. This can be a problem as it is cash, not profit, that pays the bills.

Questions to ask when reviewing the income statement are:

1. Did sales meet objectives for this period?
2. Why did sales increase compared to last period?
3. What expenses are out of line?
4. What are the trends over the last three years?
5. What were the cost of goods and expense categories as a percentage of sales compared to previous years?

Table 5: *Income Statement for Green Landscaping*

INCOME STATEMENT GREEN LANDSCAPING		
	Last Year Actual	
Earned Revenue	**$5,100,000**	**100%**
Direct Costs		
Plant Material	796,900	15.63%
Hard Materials	496,600	9.74
Direct Labor	989,940	19.41
Subcontractors	80,250	1.57
Other Direct Costs	33,630	0.66
Total Direct Job Costs	**2,397,320**	**47.01%**
Gross Margin	**2,702,680**	**52.99%**
Overhead Expenses		
Indirect Expenses		
Indirect Labor	140,610	2.76
Premium Compensation	40,310	0.79
Payroll Taxes	230,470	4.52
Worker's Compensation	64,220	1.26
Replacement Expenses	37,800	0.74
Small Tools and Supplies	57,320	1.12
Stock Loss	23,300	0.46
Trash Removal	36,660	0.72
Uniform Expense	20,160	0.4
Total Indirect Expenses	**650,850**	**12.76**
Equipment Expenses		
Depreciation	119,360	2.34
Equipment Rental	8,980	0.18
Fuel and Oil	115,700	2.27
Insurance	36,130	0.71
License and Fees	9,410	0.18
Repair Expenses	122,890	2.41
Total Equipment Expenses	**412,470**	**8.09%**
Adminstrative Expenses		
Advertising	43,100	0.85
Communications	40,400	0.79
Depreciation	12,480	0.24
Dues and Subscriptions	6,860	0.13
Facility Repair & Maintenance	16,510	0.32
Insurance-Business	53,670	1.05
Insurance-Employee Benefit	50,000	0.98
Interest Expense	17,220	0.34
Office Expense	26,170	0.51
Professional Fees	32,100	0.63
Rent	130,600	2.56
Salaries Administrative	166,260	3.25

Salaries Sales and Operations	666,000	13.06
Selling Expenses	23,450	0.46
Travel Expense	13,340	0.26
Taxes Property	16,000	0.31
Utilities	25,200	0.49
Total Administrative Expense	**1,339,360**	**26.26%**
Total Overhead	**2,402,680**	**47.11%**
Net Profit	**300,000**	**5.88%**

Balance Sheet

Unlike the income statement, which reports what happened during the specified period, the balance sheet provides a snapshot of the business at a particular time. As such, the report reflects the total effect of earlier decisions.

Tables 6 and 7 outline what a balance sheet records, including what the business owns (assets), what it owes (liabilities), and the amount of money retained, after dividends, since its inception (retained earnings).

Table 6: *Example of a Balance Sheet*

ASSETS	LIABILITIES AND EQUITY
OTHER ASSETS	**OWNER'S EQUITY**
+ Investments + Patents	+ Retained Earnings + Investments
FIXED ASSETS	**LONG-TERM LIABILITIES**
+ Machinery and Equipment + Buildings + Land + Trucks	+ Long-term Debt + Shareholders' Loans
CURRENT ASSETS	**CURRENT LIABILITIES**
+ Cash + Accounts Receivables + Inventory + Prepaid Expenses	+ Accounts Payable + Current Payroll Payable + Accrued Expenses + Current Income and Payroll Taxes + Current Portion of Long-Term Debt

Table 7: *Green Landscaping Balance Sheet*

GREEN LANDSCAPING BALANCE SHEET	
Assets	
Current Assets	
Cash	145,120
Accounts Receivable	1,147,770
Work in Progress (Net)	178,040
Inventory	174,470
Prepaid Expenses	37,350
Other Current Assets	17,780
Total Current Assets	**1,700,530**
Fixed Assets	
Buildings/Improvements	267,750
Vehicles and Equipment	2,570,880
Furniture and Fixtures	98,725
Gross Fixed Assets	2,937,355
Less Depreciation	-1,826,325
Total Fixed Assets	**1,111,030**
Other Assets	
Cash Value Life Insurance	28,345
Deposits	8,370
Other Assets	18,290
Total Other Assets	**55,005**
Total Assets	**2,866,565**
Liabilities and Equity	
Current Liabilities	
Accounts Payable	875,760
Notes Payable/Credit Line	0
Taxes Payable	37,100
Accrued Expenses	56,900
Current Portion-Long term debt	350,140
Other Current Liabilities	30,125
Total Current Liabilities	**1,350,025**
Long Term Liabilities	
Term Notes Payable	1,048,050
Capital Leases	39,750
Total Long Term Liabilities	1,087,800
Less due within one year	-350,140
Net LongTerm Liabilities	737,660
Total Liabilities	**2,087,685**
Stockholders Equity	
Common Stock	1,000
Paid-in Surplus	65,000
Retained Earnings	712,880
Total Stockholders Equity	**778,880**
Total Liabilities and Equity	**2,866,565**

READING FINANCIAL STATEMENTS

Reading an income statement or balance sheet is critical to your success. Using the income statement for Green Landscaping, Landscape Division (Table 8) as an example, key components are discussed below.

Earned Revenue. This is the value of work in place. Earned revenue is the total of the company's billings for the period, plus the value of the work installed and not yet billed.

Direct Costs. This category represents the raw cost of what we sold to our customers. Direct costs tend to be unique in that they are easily identifiable with work we have done or products we have sold. In a landscape contracting environment, direct costs resemble the job estimate. That is, its elements are those that are normally taken off by our estimator, costed, and marked up for overhead and profit. No overhead, or cost not easily identifiable to the job, is included in direct costs.

Plant Material. Plant material doesn't so much refer to green goods we install as it refers to that material which we guarantee. Whenever we say that we will guarantee something, chances are that there will be a cost involved in providing that warranty. So, plant material means guaranteed material as opposed to hard material (see below), which is all other material we sell our customers.

Direct Labor. This is probably the toughest line item to track accurately, and the most important. In the service business, we sell labor; our clients come to us for our skills, not the material we sell (that they can pick up almost anywhere). Payroll is the largest expense in our business, and it is the most variable. To price our goods and services accurately, we must be able to distinguish between the labor functions our estimator figures are required to perform the work versus the labor functions that are meant to be picked up in our markups. From a financial standpoint, perhaps the easiest way to track direct labor is to ensure our estimator and our bookkeeper are on the same page regarding what is estimated as direct labor and what is meant by the various categories of overhead labor.

Direct Costs Percentage. According to the sample income statement, we spend 51.18% of earned revenue in direct cost. This simply means that we spent 51.18 cents in direct costs (labor, material, etc.) to produce each dollar of revenue. If we look further down the percentage column, we can see that we will spend 42.81 cents of every revenue dollar to pay for the overhead of the division, and that once the dust clears and all costs are recorded, there is 6.01 cents left for profit (see Figure 2).

Gross Margin. This refers to the amount of money remaining from earned revenue once the out-of-pocket costs to provide the work are expensed. In the case of the Landscape Division, from an earned revenue of $1,700,000, $829,970 is the margin remaining once the specific costs to perform the work (labor, material, subcontracts, etc.) are expensed. The gross margin

Figure 2: *Direct Costs Percentage*

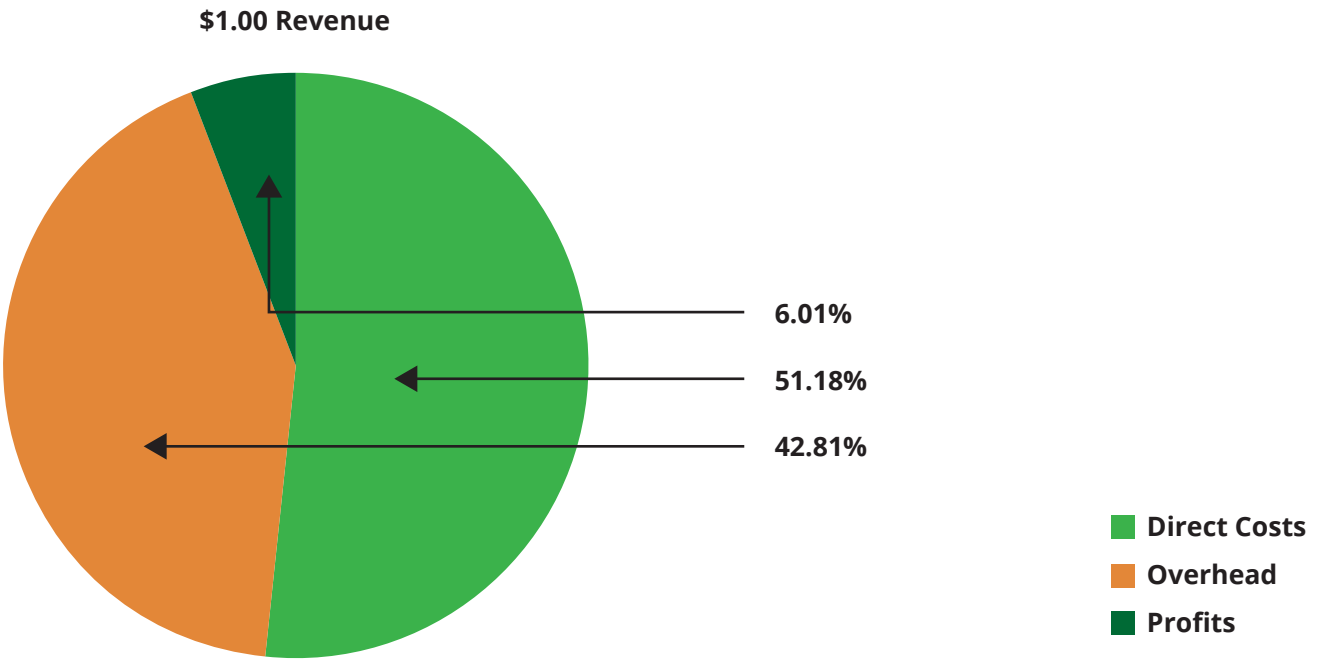


Table 8: *Green Landscaping Landscape Division Income Statement*

GREEN LANDSCAPING LANDSCAPE DIVISION INCOME STATEMENT		
	Last Year Actual	
Earned Revenue	**1,700,000**	**100%**
Direct Costs		
Plant Material	425,000	25%
Hard Materials	123,250	7.25%
Direct Labor	246,500	14.50%
Subcontracts	61,250	3.60%
Other Direct Costs	14,030	0.83%
Total Direct Job Costs	**870,030**	**51.18%**
Gross Margin	**829,970**	**48.82%**
Overhead Expenses		
Indirect Expenses		
Indirect Labor	61,200	3.60%
Premium Compensation	12,480	0.73%
Payroll Taxes	69,690	4.10%
Worker's Compensation	22,070	1.30%
Replacement Expenses	31,400	1.85%
Small Tools and Supplies	18,360	1.08%
Stock Loss	0	0%
Trash Removal	7,100	0.42%
Uniform Expense	3,400	0.20%
Total Direct Expenses	**225,700**	**13.28%**
Equipment Expenses		
Depreciation	17,850	1.05%
Equipment Rental	2,480	0.15%
Fuel and Oil	32,200	1.89%
Insurance	9,770	0.57%
License and Fees	2,760	0.16%
Repair Expenses	35,140	2.07%
Total Equipment Expenses	**100,200**	**5.89%**
Administrative Expenses		
Advertising	4,500	0.26%
Communications	6,040	0.36%
Depreciation	2,150	0.13%
Dues and Subscriptions	2,400	14.0%
Facility Repair and Maintenance	3,490	0.21%
Insurance-Business	14,170	0.83%
Insurance Employee Benefit	13,000	0.76%
Interest Expense	6,120	0.36%
Office Expense	4,180	0.25%
Professional Fees	7,400	0.44%
Rent	31,000	1.82%
Salaries Administrative	45,800	2.69%

Salaries Sales and Operations	240,000	14.12%
Selling Expenses	7,650	0.45%
Travel Expense	4,120	0.24%
Taxes Business and Property	4,130	0.24%
Utilities	5,780	0.34%
Total Administrative and Expense	**401,930**	**23.64%**
Total Overhead	**727,830**	**42.81%**
Net Profit	**102,140**	**6.01%**

generated from our work is then used to pay for the overhead expenses of the division. After overhead is paid, any moneys remaining from the gross margin is profit. In this case, $102,140 remains as profit.

Overhead Expenses. Overhead expenses are the costs spent in support of the sale. Many of these expenses could be identified with the job being installed or the product being sold, but typically they are not because of the difficulty in estimating and tracking them uniformly. Therefore, these costs are placed in their own accounts in Overhead and are applied to the direct cost of what we sell through our markup procedures.

In our Exterior Landscape Division, overhead expenses are divided into three subcategories: Indirect Expense, Equipment Expense, and Administrative Expense. The rationale behind these breakdowns is to generate as much meaning as possible from the overhead listings for the division. The number of subcategories is purely a matter of choice. We opted for three subcategories but could have just as easily had five or six or two or none. In your company, have as many subcategories as you wish, so long as the detail you generate does not detract from the readability of your income statement.

Though indirect expenses are overhead expenses, they are the most susceptible to being estimated and charged against what you are selling. This is because the types of expenses found in direct costs and the types of expenses found in indirect overhead expenses are identical in nature.

For example, in the case of the Landscape Division, compensation for our crew labor is divided into both direct and indirect costs. Holiday pay is a good illustration. If we do not estimate it as a cost of a job, it is an overhead item — same person but parts of his gross pay are found in two accounts on the income statement. “Time on the job” goes to Direct Costs, and “time on holiday” goes to Overhead. Remember, the costs in Direct Costs are those we identify and specifically sell to a client. If an account is in Overhead, we are still including it in the price of the job, but because it is not identified as a Direct Cost of the job, it is applied to our price through our markups.

Here’s another example: If we don’t make a take-off and extend consumable supplies (forming lumber, burlap, twine, nails, etc.) as a specific cost to the job, then they are charged to an Overhead account (Small Tools and Supplies) even though the majority of our material is charged to Direct Costs. The message here is simple: Be consistent. If a cost is easily identifiable, if it is estimated and expensed to a client, then it is a Direct Cost. If not, find a home for it in Overhead.

Indirect Labor. This category comprises the biggest control challenge of all for management in a contracting company. A typical subcontractor is in the service business — the business of selling labor. The fact that he/she also sells material is almost irrelevant; selling his labor is where he will succeed first and foremost. The more labor he sells, the more successful he will be — unless, of course, he is not very efficient in controlling the non-billable side of his labor force.

Indirect labor represents the non-billable side of your production labor force. Examples of time you cannot bill specifically to a job are paid time-off, callbacks, preventative maintenance, equipment breakdowns, injuries, inclement weather, office time, yard time, paperwork, and the premium pay associated with overtime. Your success will be based on how effectively you can control this non-billable side of your production force.

Every company has a certain amount of unbillable time, and every company’s indirect time will differ based on that company’s internal policy. For example, one company might have four paid holidays, and another may have six. On the operations side of things, consider the time consumed every day loading

Table 9: *Green Landscaping Departmental Income Statement*

GREEN LANDSCAPING DEPARTMENTAL INCOME STATEMENT										
	Total Company Actual		Landscape Division		Maintenance Division		Enhancements		Retail Sales	
Earned Revenue	**5,100,000**	**100%**	**1,700,000**	**100%**	**2,000,000**	**100%**	**700,000**	**100%**	**700,000**	100%
Direct Costs										
Plant Material	796,900	15.63%	425,000	25.00%	65,300	3.27%	105,000	15.00%	201,600	28.80%
Hard Material	496,600	9.74%	123,250	7.25%	157,650	7.88%	84,000	12.00%	131,700	18.81%
Direct Labor	989,940	19.41%	246,500	14.50%	625,000	31.25%	118,440	16.92%	0	0
SubContracts	80,250	1.57%	61,250	3.60%	0	0.00%	19,000	2.71%	0	0
Other Direct Costs	33,630	0.66%	14,030	0.83%	12,500	0.63%	7,100	1.01%	0	0
Total Direct Job Costs	**2,397,320**	**47.01%**	**870,030**	**51.18%**	**860,450**	**43.02%**	**335,540**	**47.65%**	**333,300**	**47.61%**
Gross Margin	**2,702,680**	**52.99%**	**829,970**	**48.83%**	**1,139,550**	**56.98%**	**366,460**	**52.35%**	**366,700**	**52.39%**
Overhead Expenses										
Indirect Expenses										
Indirect Labor	140,610	2.76%	61,200	3.60%	68,750	3.44%	10,660	1.52%	0	0
Premium Compensation	40,310	0.79%	12,480	0.73%	24,280	1.21%	3,550	0.51%	0	0
Payroll Taxes	230,470	4.52%	69,690	4.10%	112,560	5.63%	24,160	3.45%	24,060	3.44%
Worker's Comp	64,220	1.26%	22,070	1.30%	31,330	1.57%	8,730	1.25%	2,090	0.30%
Replacement Expenses	37,800	0.74%	31,400	1.85%	0	0.00%	6,400	0.91%	0	0
Small Tools and Supplies	57,320	1.12%	18,360	1.08%	25,000	1.25%	11,560	1.65%	2,400	0.34%
Stock Loss	23,300	0.46%	0	0.00%	0	0.00%	2,100	0.30%	21,200	3.03%
Trash Removal	36,660	0.72%	7,100	0.42%	20,700	1.04%	6,460	0.92%	2,400	0.34%
Uniform Expense	20,160	0.40%	3,400	0.20%	12,500	0.63%	2,900	0.41%	1,360	0.19%
Total Indirect Expenses	**650,850**	**12.76%**	**225,700**	**13.28%**	**295,120**	**14.76%**	**76,520**	**10.93%**	**53,510**	**7.64%**
Equipment Expenses										
Depreciation	119,360	2.34%	17,850	1.05%	80,900	4.05%	20,610	2.94%	0	0.00%
Equipment Rental	8,980	0.18%	2,480	0.15%	6,500	0.33%	0	0.00%	0	0.00%
Fuel and Oil	115,700	2.27%	32,200	1.89%	51,000	2.55%	25,250	3.61%	7,250	1.04%
Insurance	36,130	0.71%	9,770	0.57%	13,200	0.66%	7,320	1.05%	5,840	0.83%
License and Fees	9,410	0.18%	2,760	b	3,690	0.18%	1,720	0.25%	1,240	0.18%
Repair Expenses	122,890	2.41%	35,140	2.07%	61,900	3.10%	20,500	2.93%	5,350	0.76%
Total Equipment Expenses	**412,470**	**8.09%**	**100,200**	**5.89%**	**217,190**	**10.86%**	**75,400**	**10.77%**	**19,680**	**2.81%**
Administrative Expenses										
Advertising	43,100	0.85%	4,500	0.26%	5,000	0.25%	0	0.00%	33,600	4.80%
Communications	40,400	0.79%	6,040	0.36%	12,910	0.65%	4,150	0.59%	17,300	2.47%
Depreciation	12,480	0.24%	2,150	0.13%	3,380	0.17%	1,200	0.17%	5,750	0.82%
Dues and Subscriptions	6,860	0.13%	2,400	0.14%	2,660	0.13%	800	0.11%	1,000	0.14%
Facility Repair and Maintenance	16,510	0.32%	3,490	0.21%	4,160	0.21%	1,500	0.21%	7,360	1.05%
Insurance Business	53,670	1.05%	14,170	0.83%	24,800	1.24%	7,000	1.00%	7,700	1.10%
Insurance Employee Benefit	50,000	0.98%	13,000	0.76%	18,500	0.93%	4,100	0.59%	14,400	2.06%
Interest Expense	17,220	0.34%	6,120	0.36%	6,090	0.30%	2,020	0.29%	2,900	0.43%

Office Expense	26,170	0.51%	4,180	0.25%	6,540	0.33%	1,970	0.28%	13,480	1.93%
Professional Fees	32,100	0.63%	7,400	0.44%	10,530	0.53%	4,000	0.57%	10,170	1.45%
Rent	130,600	2.56%	31,000	1.82%	37,000	1.85%	13,000	1.86%	49,600	7.09%
Salaries Administrative	166,260	3.26%	45,800	2.69%	52,770	2.64%	16,450	2.35%	51,240	7.32%
Salaries Sales and Operations	666,000	13.06%	240,000	14.12%	208,000	10.40%	61,000	8.71%	157,000	22.43%
Selling Expenses	23,450	0.46%	7,650	0.45%	13,000	0.65%	1,300	0.19%	1,500	0.21%
Travel Expense	13,340	0.26%	4,120	0.24%	3,300	0.17%	0	0.00%	5,920	0.85%
Taxes Business/Property	16,000	0.31%	4,130	0.24%	4,900	0.25%	1,610	0.23%	5,360	0.77%
Utilities	25,200	0.49%	5,780	0.34%	7,320	0.37%	2,400	0.34%	9,700	1.39%
Total Administrative Expense	**1,339,360**	**26.26%**	**401,930**	**23.64%**	**420,860**	**21.04%**	**122,500**	**17.50%**	**394,070**	**56.30%**
Total Overhead	**2,402,60**	**47.11%**	**727,830**	**42.81%**	**933,170**	**46.66%**	**274,420**	**39.20%**	**467,260**	**66.75%**
Net Profit	**300,000**	**5.88%**	**102,140**	**6.01%**	**206,380**	**10.32%**	**92,040**	**13.15%**	**-100,560**	**14.37%**

materials and equipment and traveling to and from jobs. One company may estimate travel and loading time as a direct expense while another company may choose not to.

Regardless of how your company chooses to handle indirect time, it is imperative that you track it on a monthly, if not weekly, basis. And be consistent! If in analyzing your profitability, you feel you are falling short of your potential, one of the primary reasons will be the lack of control in this account.

Premium Compensation. This is the compensation in excess of straight time pay for hours worked in an overtime environment. This expense is often hidden from our view because it is lumped into the various payroll accounts. However, in many companies, this can be a major expense item. A wise man once said, "If you can't track it, you can't control it." And, if ever there was an expense in need of control, this one is it.

My suggestion is to isolate the expense in its own Overhead account such that it is center stage in your key management reports. Doing so will allow you to compare and control overtime spending within your budget guidelines.

Replacement Expense. The raw cost of material and labor required to uphold your company's warranty program is replacement expense. Most companies who offer warranties include in their pricing a charge for the expense of plant or service guarantees. But how much do you allow for? You will never know how much to charge unless you track your replacement cost against the cost of the work you are warranting. The solution is to set up accounts in your Overhead structure to track the various costs of your warranty exposure. You may be surprised at the results.

Equipment Expense. This category identifies the total expenses associated with the ownership, repair, and operation of equipment. All of the accounts representing these items are grouped in the subcategory of Equipment Overhead. Unfortunately, contractors have a reputation for collecting equipment. It's as though we have this driving desire to be able to look out our back window and see all of our yellow soldiers lined up, ready to go to work. If all our equipment works every day, then this may not be a concern; but, if it doesn't, this could be a huge drain on our ability to make a profit. Knowing what our equipment costs to own, maintain, and fuel is useful relative to our ability to control expenses, and it is particularly important to make sure that we are able to pass these costs back to our clients.

Another benefit of isolating equipment costs is that if ever we wanted to charge our own equipment to jobs based upon its actual use, the grouping of all the equipment expenses in one area of the Income Statement makes accomplishing this goal a relatively easy task. We could create hourly rates for each piece of equipment we own, and charge jobs based on how many hours that piece was working. The hours extended by the cost per working hour become a direct cost to the job.

Depreciation and Net Profit. Added together, these elements comprise a key ratio banks use to evaluate your creditworthiness, i.e., your ability to pay back the money they have loaned you. Seldom will a financial institution loan more than 80% of this formula, annualized. Ideally, this number should always be

positive; yet in a seasonal business, this number can fluctuate wildly. Better monitoring and planning of this relationship can ease many of the pressures on the cash management side of your business.

Administrative Expenses. Also known as fixed expenses, these are the expenses that are ongoing regardless of whether we work or not. Unlike many of the other expenses on the Income Statement, which tend to move up and down as sales activity moves, the administrative expenses typically will not rise and fall, regardless of the seasonal swings of our year.

If by chance the administrative expenses do fluctuate, it probably will not be because of changes in field activities but due to the specific impact of decisions made by management. This is because Administrative Expenses is the area of the Income Statement that comprises the company's permanent Depreciation and Net Profit Administrative expenses — its standard of living— and to create a fluctuation in these expenses generally requires an overt decision by ownership.

Salaries – Administrative. Note that the name of our company is Green Landscaping Inc. The "Inc." says that we are a corporation, not a proprietorship or a partnership. This means that ownership takes a salary, and that salary is recorded as an expense in the overhead structure.

Total Overhead Expense. On our Income Statement, as a percentage of Earned Revenue, total overhead expense is 42.81%. This means that out of every dollar of sales, I can expect to spend an average of 42.81 cents in overhead. This percentage has absolutely nothing to do with pricing. It simply means that, on average, we as a company spend 42.81 cents of every dollar, we bring in to support the activity of what we are selling.

Net Profit. This represents the bottom-line margin we earn for what we do for a living. It is the result of earned revenue earned from the work we perform, less the direct cost to produce that work, less the overhead to support our operations. Ideally, if all systems are in sync, the profit we see at year-end is the spitting image of the sum of the profit markup we placed on all the jobs we performed.

The above financial statements and notes from the key components are from *Pricing for the Green Industry 2022*, written by Frank H. Ross and published by NALP.

Retained earnings. Sometimes called owner's equity, this represents profit made since the company started that has not been paid out in dividends but kept in reserve to either grow the company or reduce debt. It is possible to have negative retained earnings. This happens when the company owes more than it owns. This can happen in companies that are growing rapidly but have yet to turn the growth into cash generators; however, it can also be a red flag on the company's finances and increases the risk of bankruptcy if it continues for an extended period.

It is not unusual for lenders to have restrictions on the minimum retained earnings a company must maintain, and this in turn will affect dividends that might be paid. In many jurisdictions it is illegal to pay a dividend if a company has negative retained earnings; this is done to protect the creditors from assets being stripped and leaving the company insolvent.

Net worth and working capital are commonly used terms and also warrant discussion. At its simplest, net worth is the accounting value of a company and is the sum of shareholder loans, shareholder equity, and retained earnings — basically, what the owners have claim to. It is important to note that net worth does not determine what you might sell your business for; it is simply an accounting calculation of the money invested and the money made by the company. Valuation to establish a selling price is much different.

Working capital indicates a company's ability to meet its short-term obligations. It is calculated from the balance sheet by subtracting current liabilities from current assets. While negative working capital is bad, positive working capital can still be a problem if the current assets are not generating enough cash to pay the bills.

Questions to ask about the balance sheet include:

1. What changed since the last report? Why?
    - » In particular, were there significant changes in accounts receivable or accounts payable?
    - » Was there an increase in debt?
2. Who is funding the business (the business, owners, debtholders, suppliers)?

CHANGES IN FINANCIAL POSITION (STATEMENT OF CHANGES)

The Changes in Financial Position statement, also known as the "Sources and Uses of Cash" and the "Cash Flow" statement, is often the least-understood of the statements but is possibly the most important for a small business owner. The objective of this statement is to show where cash came from and where it went between two dates. This statement is typically developed by the firm's accountants for the year-end statements. It is, however, important to understand changes in financial position.

To understand the statement of changes, it is helpful to understand how it is constructed.

Table 10: *Basic Changes in Financial Position*

Net Income	**Cash from operations**
+ Increase in accounts payable and prepaid expenses	
- Increase in current accounts receivable	
+ Depreciation expense	
= Cash from operations	
Capital expenditures	**Cash to and from investing in long-term assets**
+ Sales of capital assets (net of depreciation)	
= Cash to / from investments	
Cash to / from investments + increase in loans (or minus if paying down loans)	**Cash to and from change in financing activities**
- Owner withdrawals	
= Cash to / from financing	
= Changes in cash during the year	

Table 10 shows the items that are accounted for in basic changes in the financial position of a company.

Step 1.

Convert the net income from an accrual basis to a cash basis.

Step 2.

Adjust the short-term assets and liabilities for non-cash entries. Remember, we are recording sales and expenses when they happen, not when the cash is exchanged, so if we make a sale and do not receive any money (increase accounts receivable), we must adjust the net income by this amount.

Step 3.

The entries that we need to consider are if:

+ Current assets increase, cash decreases.
+ Current assets decrease, cash increases.
+ Current liabilities increase, cash increases.
+ Current liabilities decrease, cash decreases.

Step 4.

Add back any depreciation expense. Depreciation is a noncash entry — no cash is exchanged — and we have deducted this amount from revenue, so it is added back. At this point, we have calculated the change in cash due to operating activities (i.e., the change in cash related only to the day-to-day sales activity in which the business is involved).

Step 5.

Look at the changes in long-term assets. What is the net change made in property, plant, and equipment? If you purchase a new machine (increase long-term asset), you reduce the amount of cash you have. However, if you sell a machine for more than its depreciated value, you generate cash. Most companies have an accountant handle more complex entries at year-end.

Step 6.

Look at the changes in financing activities. Borrowing more money and increasing contributions from the owners add cash to the business. Paying down loans, paying dividends, or other owner withdrawals reduce cash.

Step 7.

Adjust for changes in non-cash tax expenses. Taxes expensed against current earnings but not yet due (deferred taxes) reduce net income, but they are not a cash entry, and the amount must be added back to cash flow. Most companies an accountant take care of more complex entries at year-end.

ACCOUNTING SYSTEMS AND RECORDS

The information found in the financial statements is only as good as the information it is based on. Since most small business owners are not accountants, before establishing an accounting system, you should discuss its setup with your accountant. Additional information is available a from the **SME Toolkit Bookkeeping and Record Keeping Basics**.

An accounting system should accomplish the following:

1. Provide an accurate picture of operating results.
2. Allow quick comparisons of current data with prior years' results and budgets.
3. Provide information for financiers (banks, creditors, investors).
4. Assist in preparing regulatory reports and taxes.
5. Reveal fraud, theft, and record-keeping errors.

Depending on the nature and complexity of the business, a variety of information must be monitored. The following items are the common records that are maintained.

GENERAL LEDGER

A general ledger, which should be initially set up with assistance from an accountant, is a summary book that records transactions and balances of individual accounts using a pre-determined "chart of accounts" or cost codes (see Tables 11 and 12). While a chart of accounts can be tailored to suit business needs, its structure must be organized into five classes of accounts:

+ Assets — A record of all items that the business owns
+ Liabilities — A record of all debts the business owes
+ Capital — A record of all ownership or equity
+ Sales — A record of all income earned for a specific period
+ Expenses — A record of all expenditures incurred during a given period

ACCOUNTS RECEIVABLE RECORDS

At a minimum, an aged list of accounts receivable must be kept ensuring all accounts are paid. Additional details on credit decision-making, collection, and credit effectiveness will permit you to fine-tune the credit-granting and collection process. You must carefully track accounts receivables, as this will affect your cash flow. The use of automated payment systems helps with tracking and accuracy.

Table 11: *Chart of Accounts Balance Sheet*

ACCOUNT NUMBER	ASSETS
	Current Assets
1000	Cash on Hand
1020	Cash in Banks
1050	Investments
1100	Accounts Receivable-Trade
1110	Accounts Receivable-Leases
1120	Accounts Receivable-Employee
1150	Accounts Receivable-Other
1300	Notes Receivable
1400	Cost in Excess of Billings
1500	Inventory
1600	Prepaid Assets
1650	Other Current Assets
	Fixed Assets
1700	Land
1710	Buildings
1720	Improvements
1730	Furniture and Fixtures
1750	Equipment
1770	Trucks, Autos and Trailers
1810	Depreciation-Buildings
1820	Depreciation-Improvements
1830	Depreciation- Furniture & Fixtures
1850	Depreciation-Equipment
1870	Depreciation- Trucks, Autos and Trailers
	Other Assets
1900	Cash Value Life Insurance
1910	Goodwill
1920	Customer Lists
1940	Organization Expense
1950	Amortization- Goodwill
1960	Amortization-Customer Lists
1980	Amortization-Organization Expense

ACCOUNT NUMBER	LIABILITIES AND CURRENT STOCKHOLDER EQUITY
	Current Liabilities
2000	Accounts Payable-Trade
2100	Notes Payable
2200	Notes Payable-current
2250	Capital Leases-current
2300	Accrued Payroll
2320	Accrued Taxes
2340	Accrued Insurance
2360	Accrued Benefits Plan
2380	Accrued Expenses-Other
2450	Warranty Reserve
2500	Income Taxes Payable
	Long-Term Liabilities
2700	Notes Payable-Banks
2720	Notes Payable-Equipment
2740	Notes Payable-Mortgages
2760	Notes Payable-Stockholders
2780	Notes Payable-Other
2800	Capital Leases
2850	Deferred Income Taxes
	Stockholder's Equity
2900	Capital Stock
2920	Paid in Surplus
2940	Treasury Stock
2950	Subordinated debt
2960	Retained Earnings
2970	Net Profit
2990	Dividends

Table 12: *Chart of Accounts Income Statement*

ACCOUNT NUMBER	
	Gross Revenue
3000	Earned Revenue
3900	Returns and Allowances
	Direct Costs
4000	Plant Material
4100	Hard Material
4200	Materials Sales tax
4300	Direct Labor
4500	Casual Labor
4600	Equipment
4650	Equipment rental
4700	Subcontractors
4900	Other
	Overhead Expenses Indirect Expense
5000	Bad Debt
5050	Bidding expense
5100	Benefits Labor
5200	Indirect Labor
5260	Supervisors Wages
5290	Premium Compensation
5300	Payroll Tax-FICA
5320	Payroll Tax-SUTA
5340	Payroll Tax-FUTA
5360	Payroll Tax-Other
5380	Worker's Comp Ins
5400	Job Travel Expense

ACCOUNT NUMBER	
5500	Replacement Materials
5600	Safety Expenses
5750	Small Tools and Supplies
5800	Trash Removal
5850	Uniform Expenses
	Equipment and Truck Expense
6000	Depreciation
6050	Lease Expense
6100	Equipment Rental
6150	Fuel and Oil
6180	Insurance-Equipment
6190	Insurance-Vehicles
6250	License and fees
6300	Mechanic's Wages
6400	Outside repairs
6500	Parts Expenses
6600	Shop Maintenance
6650	Shop Toll and Supplies
6700	Tire Expense
	Material Handling Expense
7000	Freight on Materials
7100	Inventory Spoilage
7150	Inventory Variation
7250	Inventory Supplies
7280	Travel-Buying Trips
	Material Handling Expense

ACCOUNT NUMBER	
7300	Utilities
7320	Warehouse/Yards Maint.
7400	Delivery Wages
7420	Warehouse/Yard Wages
7430	Purchasing Wages
	Administrative Expense
8000	Advertising-HR
8020	Company Advertising
8050	Amortization Expense
8100	Communications
8180	Contributions
8190	Conventions/Meetings
8200	Credit Card Fees
8250	Depreciation Expense
8300	Dues & Subscriptions
8360	Employee Training
8380	Entertainment & Meals
8390	Facility Maintenance
8400	Insurance-Business
8450	Insurance-Employee
8500	Interest expense
8600	Mileage and Tolls
8620	Office expenses
8720	Rent
8800	Salaries-Management
8820	Salaries-Office

ACCOUNT NUMBER	
8840	Salaries-Sales
8960	Travel Expense
8980	Utilities
	Other Income
9000	Bad Debt Recovery
9050	Discounts on Purchases
9090	Finance Charges
9100	Gain on Sale of Fixed Assets
9200	Gain on Sale of Investments
9300	Interest Income
9450	Rental Income
9500	Miscellaneous Income
	Other Expense
9500	Dividends Paid
9520	Insurance Audit
9550	Insurance Claims
9600	Prior Period Adjustments
9900	Income Tax-Federal
9950	Income Tax-State
9999	Miscellaneous Expense

ACCOUNTS PAYABLE RECORDS

Accounts payable records show what the firm owes to suppliers and lists details and calculations of discounts. Most firms produce an aged list of accounts payable to track how long they are taking to pay specific suppliers. You must keep an eye on your accounts payable, as this will affect your cash flow and your credit lines with suppliers.

INVENTORY RECORDS

Inventory records detailed inventory required to ensure an adequate supply is on hand but also to ensure that an excess is not kept. Inventory records should be monitored to reflect shrinkage due to spoilage, obsolescence, theft, or fraud. Monthly, quarterly, and yearly inventories are essential.

PAYROLL RECORDS

Payroll records must be maintained for regulatory purposes in addition to internal needs. Payroll records must meet the requirements of the IRS, state and local departments of revenue, workers' compensation laws, wage and hourly laws, Social Security laws, and unemployment insurance regulations.

Most landscape companies also track payroll costs by job to allow for accurate job costing. Systems that can be integrated with the company's human resource system allow all an employee's information to be stored in one location.

CASH DISBURSEMENTS AND RECEIPTS

If companies keep petty cash, they should keep a record of all transactions related to the disbursement of this cash. Limit staff access to petty cash to eliminate problems with tracking issues.

FIXED ASSET SCHEDULES

Purchase price, useful life, depreciation, and major repairs are tracked under the fixed asset schedule. It is important to track fixed assets because they become a component of decision-making with respect to asset replacement. At some point, the repair costs for rolling stock, such as trucks, loaders, and so forth, outweigh the cost of replacing them with new equipment. To make informed decisions about lease versus purchase of large assets, business owners must have realistic figures on useful life and repair costs.

INTERNAL CONTROL PROCEDURES

Having internal control procedures in place ensures your business is accurately described in the financial statements. Internal control is about reducing the risk of error that could affect your financial records and also limiting the likelihood of fraud.

The **segregation of duties** is an important aspect of internal control. It entails establishing processes and accountability structures to ensure that, for instance, the person who collects cash is not also the person reconciling the bank statement or sending out the billing invoices. The following are some steps to consider:

1. Identify who has what authority to make what decisions (this may even include what decisions a single manager or partner can make versus decisions that require all the partners' input or approval).
2. Develop procedures for:
    - » Accepting personal checks or allowing sales on account.
    - » Who can pay invoices.
    - » Who can sign checks.
3. Limit access to accounting records.
4. Control access to computer facilities.

TAXES

Preparing taxes, keeping records for audits, and remembering filing deadlines can be overwhelming tasks. For most companies, it is advisable to have external accountants review your financial statements and prepare your taxes for filing.

The U.S. Internal Revenue Service offers an introductory course on preparing taxes and provides information and resources on its website: www.irs.gov.

TYPES OF YEAR-END ACCOUNTING STATEMENTS

In the United States, there are three types of financial statements: audited, reviewed, and compiled.

AUDITED STATEMENTS

Audited financial statements refer to a company's financial statements that have been prepared and certified by a Certified Public Accountant (CPA). In the United States, the auditor certifies that the financial statements meet the requirements of the GAAP, or generally accepted accounting principles. These statements can include the balance sheet, cash flow statement, or income statement. The auditor looks at risk assessment, internal controls, and statement verification.

An auditor can give an unqualified opinion, in which they agree with how the company prepared the

statements, or a qualified opinion, in which they state which aspects of the company's statements they believe have errors. They may give an adverse opinion, indicating more substantial errors. If the auditor renders a disclaimer of opinion or no opinion, that means the auditor doesn't have the information or time necessary to complete the audit.

REVIEWED

A less thorough examination is a review. In this instance, the auditor is not required to evaluate internal control or scour every detail of your financial reports. Instead, the accounting firm analyzes financial statements and submits inquiries to management.

Many accounting firms will compare your financial statement to what industry standards might have predicted, the current economic conditions, and prior experience with your type of business. If something significant seems out of line, they will then investigate that item.

If a third party, such as a bank or creditor, requests a financial statement from your business, they often accept reviewed statements, which saves the extra costs and time involved in an audit. A review provides some of the assurances of an audit, since a qualified, independent outsider has analyzed your financial statements.

COMPILED

Compiled financial statements are valuable for internal use and to comply with bank requirements regarding debt-to-equity ratios. The CPA does no testing or analysis of the financials, but having a CPA involved enhances the credibility that the statement contains the appropriate information and is presented in the proper GAAP format. In a compiled financial statement, monthly bank account reconciliation is reviewed, and transactions are assembled using generally accepted accounting standards, but records are not tested.

Compiled statements are usually sufficient to meet the needs of most small businesses because:

1. There are usually no external shareholders.
2. The company is not traded on the stock market.
3. The cost of a compilation is minimal in comparison to that of an audited financial statement.

PROFESSIONAL ACCOUNTING DESIGNATIONS

As they look for assistance with finance management, company owners will note there are a multitude of specialized financial designations in the United States. Most small businesses, however, will use CPAs for financial statement preparation and for tax purposes.

CERTIFIED PUBLIC ACCOUNTANTS (CPAS)

The Certified Public Accountant (CPA) designation is the most common professional accounting credential in the United States. Not all public accountants are CPAs; however, hiring a CPA can save small businesses time and money because they are tax experts, but they offer a variety of services. CPAs perform a broad range of accounting, auditing, tax, and consulting activities for their clients, who may be corporations, governments, nonprofit organizations, or individuals. For example, some CPAs concentrate on tax matters, such as advising companies of the tax advantages and disadvantages of business decisions. Some CPAs audit clients' financial statements and report to investors and authorities. They also may prepare individual or business income tax returns.

Some CPAs concentrate in such areas as compensation or employee healthcare benefits, accounting and data-processing system design, or controls to safeguard assets.

Public accountants, many of whom are CPAs, generally have their own businesses or work for public accounting firms.

CPAs are licensed by a state board of accountancy. The vast majority of states require CPA candidates to be college graduates, but a few states substitute a number of years of public accounting experience for a college degree.

All U.S. states use the Uniform CPA Examination prepared by the American Institute of CPAs. The CPA examination involves 14 hours of testing, is rigorous, and only about half of those who take it each year pass.

CERTIFIED MANAGEMENT ACCOUNTANTS (CMA)

The Institute of Management Accountants confers the Certified Management Accountant (CMA) designation on applicants who complete a bachelor's degree or attain a minimum score on specified graduate school entrance exams. Applicants, who must have worked at least two years in management accounting, must also pass a two-part examination, agree to meet continuing education requirements, and comply with standards of professional conduct. The CMA program is administered by the Institute of Certified Management Accountants, an affiliate of the IMA.

OTHER U.S. DESIGNATIONS

Graduates from accredited colleges and universities who have worked for two years as internal auditors and have passed a three-part examination may earn the Certified Internal Auditor (CIA) designation from the Institute of Internal Auditors (IIA). The IIA also confers specialty designations: Certification in Control Self-Assessment (CCSA), Certified Government Auditing Professional (CGAP), Certified Financial Services Auditor (CFSA), Certified Risk Management Assurance (CRMA), Certified Process Safety Auditor (CPSA) and Certified Professional Environmental Auditor (CPEA). The requirements for these certifications are similar to those of the CIA.

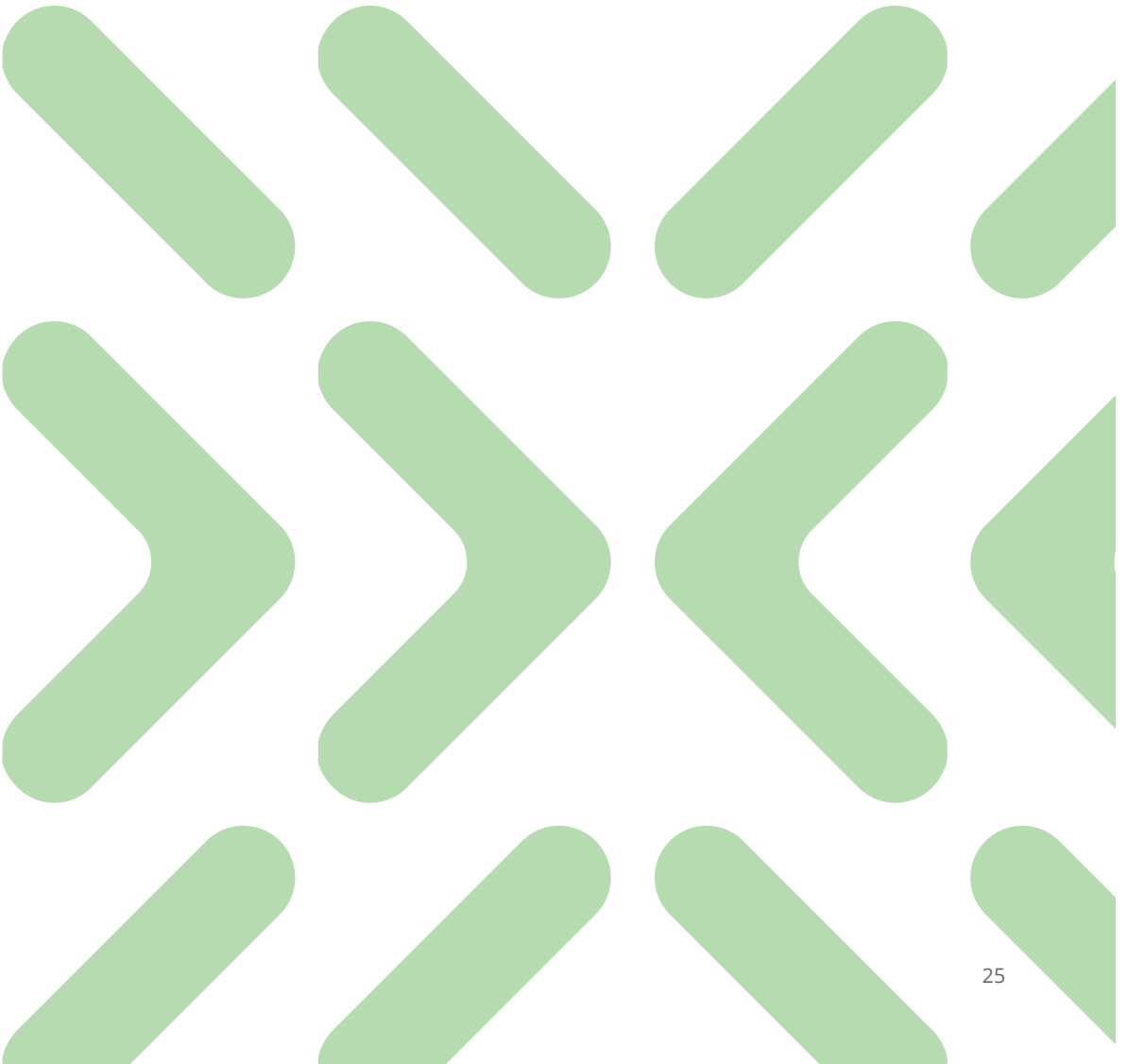
The Information Systems Audit and Control Association confers the Certified Information Systems Auditor (CISA) designation on candidates who pass an examination and have five years of experience in auditing information systems. An internal auditor might be a CPA, CIA, or CISA.

The Accreditation Council for Accountancy and Taxation, a satellite organization of the National Society of Public Accountants, confers three designations on accountants specializing in tax preparation for small- and medium-sized businesses: Accredited Business Accountant (ABA), Accredited Tax Advisor (ATA), and Accredited Tax Preparer (ATP). Candidates for the ABA must pass an exam, whereas candidates for the ATA and ATP must complete the required coursework and pass an exam. Often, a practitioner will hold multiple licenses and designations.

For more information about the different US certifications, see Investopedia http://www.investopedia.com/articles/professionaleducation/09/accounting-finance-certifications.asp or the American Institute of CPAs, www.aicpa.org

THINGS TO DO AND THINK ABOUT

+ Review accounting terminology.
+ Define cash accounting.
+ Define accrual accounting.
+ Read and understand an income statement.
+ Read and understand a balance sheet.
+ Know your company's financial/accounting cycle.
+ Review your company's inventory management system and suggest improvements.



CHAPTER 2:
EVALUATING FINANCIAL PERFORMANCE

Simply having a record of your company's financial transactions does not help you make smart management decisions. You must examine and evaluate the information collected to get a detailed picture of the business. Table 13 outlines the initial steps in a financial performance analysis.

RATIO ANALYSIS

Looking at relationships in the financial data will help you better understand what is happening in the company. You can use many different ratios to answer these four broad questions:

Table 13: *Steps to Begin Financial Performance Analysis*

STEP 1.	**Gather accurate information.**	Remember that it is "garbage in, garbage out." If you start with poor information, you will make poor decisions.
STEP 2.	**Organize the information so you can see relationships.**	There is a lot of financial information. Put it together in a way that makes sense and gives you an overview of what is happening.
STEP 3.	**Calculate financial ratios and summarize data.**	This continuation of Step 2 can drill down to provide even more insight into the company's finances.
STEP 4.	**Look for trends or changes.**	The numbers alone do not mean anything; you need to compare them with something. The first comparison is to see how they change over time.
STEP 5.	**Compare your business to other businesses.**	Once you have looked at how the numbers change over time, compare them to similar businesses.
STEP 6.	**Determine what is happening to cause the numbers.**	The numbers reflect what is happening in the real world. You need to understand what is generating the numbers, good and bad.
STEP 7.	**Determine what steps you can take to improve, fix, or maintain the results.**	The entire exercise is a waste of time unless you use the information to manage the business.

Table 14: *Liquidity Ratios*

RATIO	CALCULATION	WHAT IT MEANS	EXAMPLE CALCULATIONS	BENCHMARKS
Current Ratio	Current Assets / Current Liabilities	Short-term solvency – does the business have more short-term assets than short term liabilities?	1 868 / 1000 = 1.87	1.6
Quick Ratio (Acid Test)	Cash + Accounts Receivable/ Current Liabilities	Similar to current ratio but more restrictive. Does the business have the cash (or near to cash) to pay short-term obligations?	(355+555)/1000 = .91	1.2

Table 15: *Profitability Ratios*

PROFITABILITY	FORMULA
Gross Profit %	GP / Revenue
Operating Expense %	Operating Expenses / Revenue
Profit Margin	Net Income / Revenue
EBITDA	Earnings before Interest, Taxes, Depreciation / Amortization
Return on Assets	Net Income / Total Assets
Return on Equity	Net Income / Total Equity

Description	Build/ Design	Bid/ Build	Commercial Maintenance	Residential Maintenance	Lawn Care	Irrigation	Snow Removal	Other
Gross Profit %	38%	39%	33%	34%	47%	43%	34%	47%
Operating Expense %	30%	33%	29%	31%	36%	33%	25%	34%
Profit Margin	8%	6%	4%	3%	11%	11%	9%	13%
EBITDA	11%	9%	7%	7%	15%	16%	11%	17%

Profitability Ratios (Balance Sheet Items)	Mean	Median
Return on Assets	21%	20%
Return on Equity	51.50%	47.20%

1. Does the business have the capacity to meet its short-term financial commitments? Is the business able to pay the bills that are due this period?
2. Is the business producing adequate profits from its assets? How efficiently is the business using the resources (assets) it has?
3. How is the business financed? Who owns what part of the business — shareholders, suppliers, or bankers?
4. Are the owners receiving an acceptable return on their investment? Are the owners happy with the money they earn from the cash they have invested?

To answer these questions, we will look at four groups of ratios. Three groups, which together are referred to as "financial ratios," measure whether the business is able to meet its obligations, how profitable it is, and who has what invested in the business. The fourth group contains productivity ratios, which measure how well, or effectively, management is using the assets of the business.

The ratios provided as benchmarks are from the 2016 *Operating Cost Study for the Landscape Industry*, published by the National Association of Landscape Professionals.

LIQUIDITY

Liquidity is a measure of the viability of the business in the short term. Liquidity ratios gauge a business's ability to pay current period obligations. Will the business have, or will it soon have, adequate working capital to pay creditors as the obligations come due?

This is measured by comparing the assets that are cash or close to being cash (current assets: cash, accounts receivable, and inventory) with the payments coming due in the short term (current liabilities: accounts payable, current portion of long-term debt, any notes payable, and taxes payable). See Table 14 for an overview.

It is **strongly** recommended that the reader refer to the *NALP Financial Benchmark Report* to compare their performance to industry benchmarks. Be careful in your interpretation of benchmarks, as there is considerable variability between companies.

PROFITABILITY

Profitability ratios look at the long-term viability of a business. They evaluate a company's level of profitability by expressing sales and profits as a percentage of various other items, asking the question, "Is the business generating an acceptable return for what we have invested?" See Table 15.

SOLVENCY

Solvency ratios calculate how a company's assets are financed by debt (lenders and suppliers) or by equity (owners). The Interest Coverage Ratio (see Table 16) is technically not a solvency ratio, but it compares a business's cash flow to cover debt-servicing costs.

PRODUCTIVITY RATIOS

Productivity ratios (see Table 17) assess a business's operating efficiency — how effectively it uses its assets.

WHAT DOES IT TELL YOU?

Although financial information and ratios provide indications of positive or negative trends and help identify possible problem areas, they do not always

Table 16: *Solvency Ratios*

RATIO	CALCULATION	WHAT IT MEASURES	EXAMPLE CALCULATIONS	BENCHMARKS
Debt to Equity	Total Debt / Total Owner's equity (inc. Shareholder Loans)	Ratio of value borrowed to value owned	(1000+1350)/ (300+100+885) = 1.83	0.7 (Industry average)
Interest Coverage Ratio	EBIT + depreciation expected /Current Portion of Debt + Interest payments	Measures a company's margin of safety: how many times over the company can make its interest payments	(701+99) / (435 + 110) = 1.47	1.1 to 1.15 (Depending on the lender)

Table 17: *Productivity Ratios*

RATIO	CALCULATION	WHAT IT MEASURES	EXAMPLE CALCULATIONS	BENCHMARKS (INDUSTRY AVERAGE)
Asset Turnover	Sales / Assets	How efficiently you are using your assets to generate sales	3200 / 3635 = .88 times	4.1 times
Inventory Holding Period	365 / (COGS / Inventory)	How quickly inventory generates sales	365/ (1600/835) = 190.5 days	30.1 days
Accounts Receivable Days	365 / (Sales / Accounts Receivable)	How long it takes to get paid	365 / (3200 / 555) = 6.3 days	26.9 days
Accounts Payable Days	365 / (COGS / Accounts Payable)	How quickly you pay your bills	365 / (1600 / 450) = 102.7 days	50.3 days
Sales per Employee	Sales / (# of Full-time employee [FTE] equivalents)	How many sales dollars you generate per employee		$82,860 USD
Gross Margin per Employee	Gross Profits / # FTE	Gross margin per employee		$35,640 USD

identify the actual problem. For example, if your return on sales is poor but your gross margin is good, it is likely that there is a problem with your operating or financing expenses.

The next step in the analysis involves a bit of detective work. After pinpointing the problem area, you must determine what is actually happening in the field to generate the numbers that are being analyzed. Figure 3 shows some of the underlying relationships. For example, if the gross margin is low, look at the arrows leading to the "gross margin" box as possible causes.

TREND ANALYSIS

As with the actual financial statements, ratio analysis is more meaningful when you compare how ratios change over time and how they relate to other businesses. At the end of this publication is a sample record sheet to summarize the ratio data. Collecting the data on a page like this allows you to easily identify any trends.

Once you understand the concepts behind ratio analysis and how ratios are calculated, setting up a spreadsheet to do the math and generate a summary sheet allows you to spend more time looking at what is causing the results and exploring ways to improve performance. This is called trend analysis.

BENCHMARKING

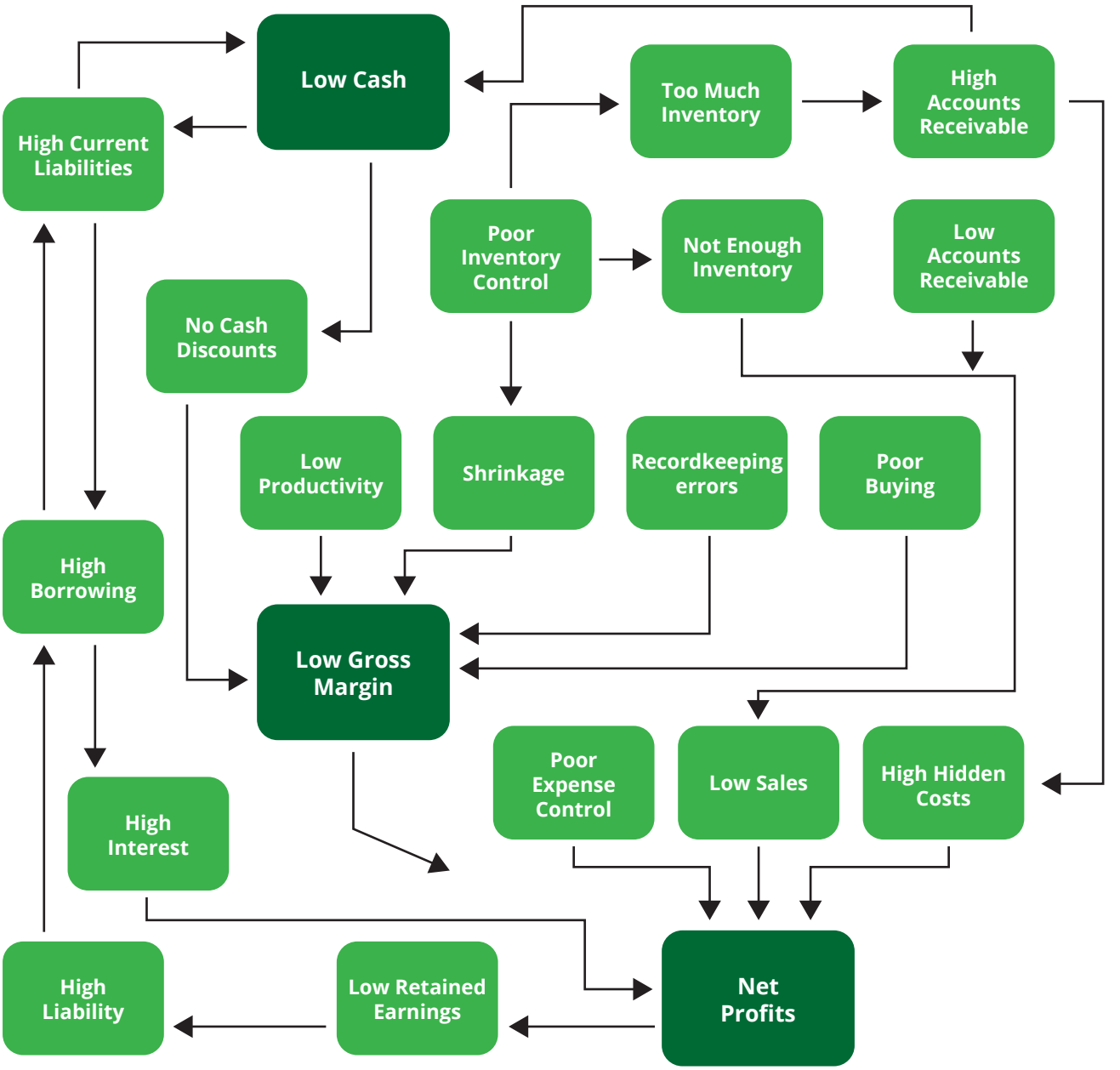
After you have examined how the business is doing and changing over time, you should compare it to other similar businesses – after all, these are your competitors. You can find generic information about small businesses on the websites of state, province, and federal government agencies such as USDA and Statistics Canada.

Another good source of information is industry trade association publications, such as the *Financial Benchmark Report*, the *Compensation and Benefits Report*, and *Pricing for the Green Industry*, published by the National Association of Landscape Professionals.

Additional benchmarking information is also available from James R. Huston's *Benchmarks for Landscape Construction Professionals*.

Another way to make comparisons is to form or join a peer group. These are groups of businesses

Figure 3: *Financial Road Map*



that are willing to share information and compare how they conduct their operations. Identify businesses similar to yours that are not your direct competitors and exchange information on how you are approaching situations and what results you are achieving.

THINGS TO DO OR THINK ABOUT

+ Perform a financial analysis of your company using liquidity ratios.
+ Perform an analysis using productivity ratios.
+ Develop benchmarks to compare your company to others.

CHAPTER 3:
MANAGING FROM FINANCIAL STATEMENTS

Managing your business from a financial perspective is just as important or more so than managing operations. Even if you leave all the accounting functions to others you must be able to understand income statements and other financial documents to make decisions. Your pricing methods, your balance sheet and income statement are critical to your daily success.

MANAGING THE INCOME STATEMENT

The income statement records the actual revenue and expenses incurred to generate income. You can improve the numbers on the income statement in several ways:

1. Increase sales by increasing the price per unit sold, increasing the number of units sold, or both. and/or
2. Reduce the direct cost of producing the goods or services by finding a less expensive supplier, negotiating price discounts, reducing production costs, and/or using labor more effectively.
3. Reduce operating expenses.
4. Reduce financing expenses.
5. Try to reduce taxes.

PRICING DECISIONS

Determining what to charge is a common dilemma for all business owners. If maximizing profit is the goal, it makes sense to charge as much as possible. However, if your prices are too high compared to your competitors,' your business will flounder. One tool to determine pricing is the break-even analysis. This process looks at the relationship of price and volume and the costs incurred to produce those goods or services.

A break-even analysis answers two questions:

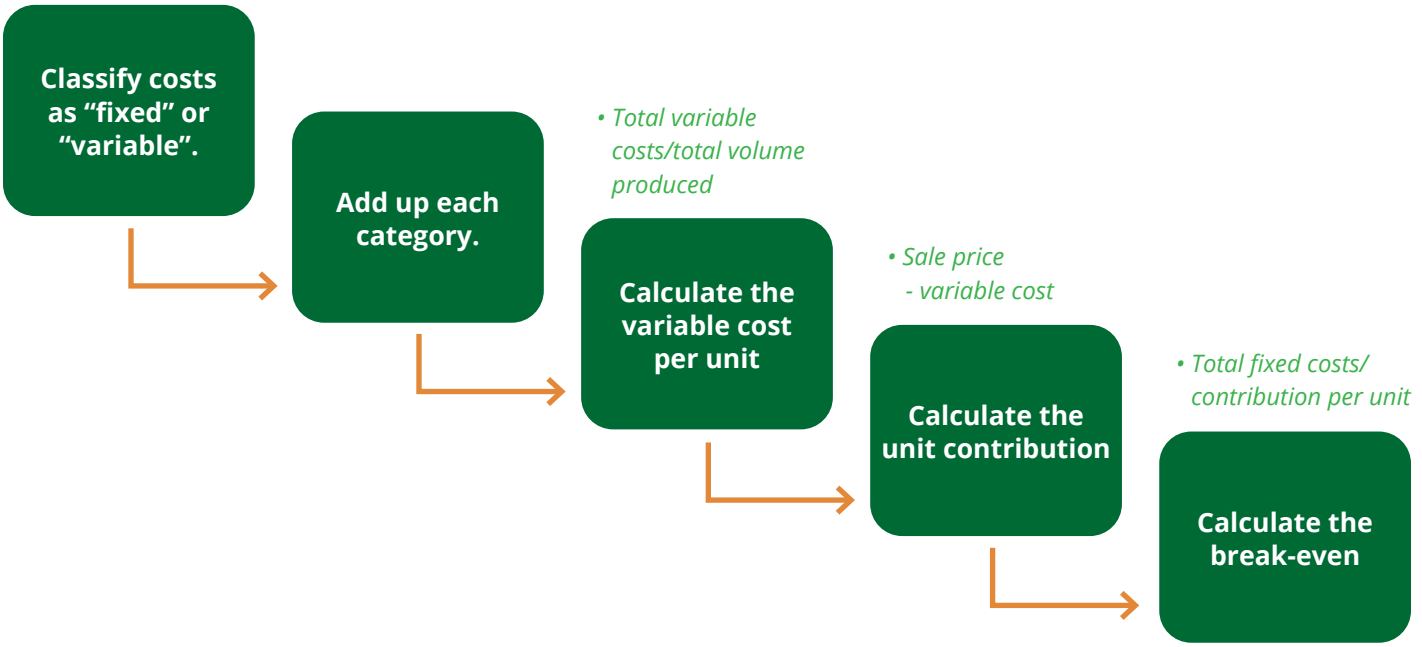
1. If costs increase by $1,000, how much more do I need to sell to keep the level of profits? *and*
2. If I increase prices by 5%, how many sales/ customers can I lose and still maintain the same level of profits?

The analysis is based on the fact that some of a business's expenses are fixed; that is, they do not change with a change in sales. Items such as insurance, management salaries, rent, and product development costs stay relatively the same no matter how many units of a product or service are sold. Some expenses are variable; they do change with a change in sales. Items such as production labor, fuel costs, truck expenses, and raw materials are directly related to production, so total expenses increase as you sell more. The challenge of course is to ensure what you earn goes up faster than what it costs and that is the essence of breakeven analysis. More information on break-even analysis is available from *Break-Even Analysis: Starting and Managing* from the U.S. Small Business Administration.

Figure 4 represents one way of looking at a break-even costing.

Figure 4: *Break-Even Analogy*

Figure 5: *Per-Unit Break-Even Analysis*

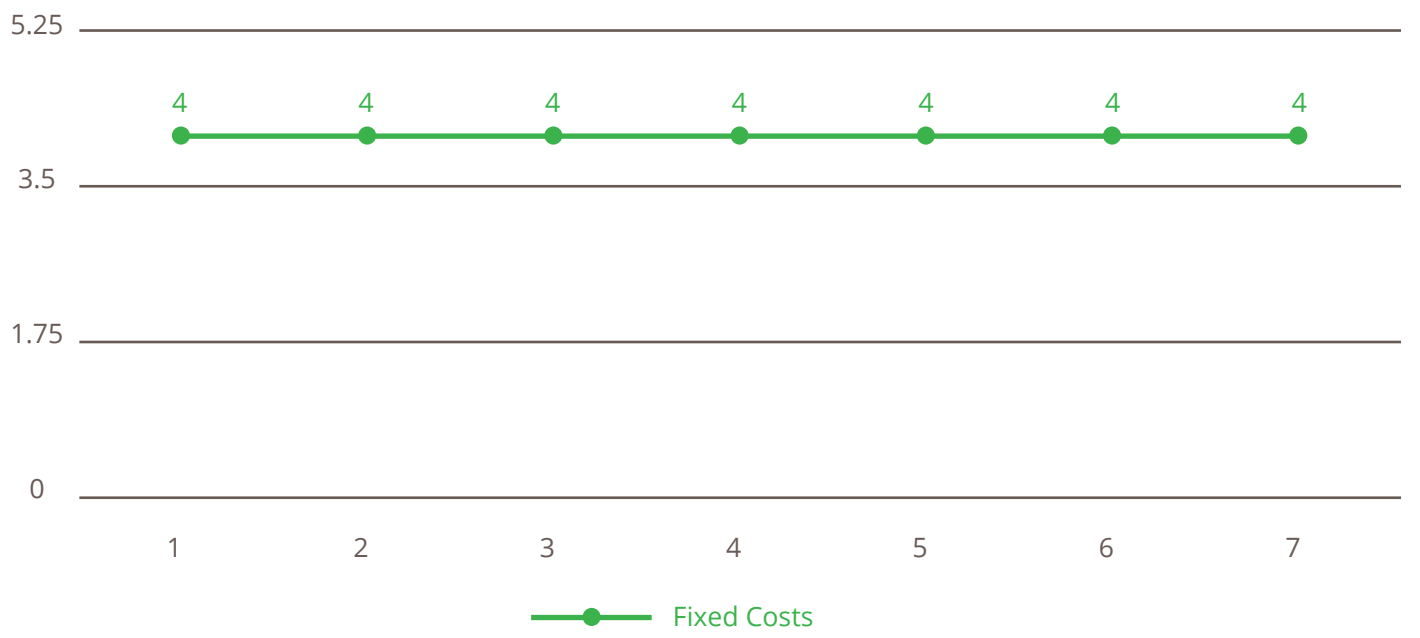


Contribution is defined as "revenue minus variable costs." It is the sum of money available to contribute to paying fixed costs. **Contribution Margin**, expressed as a percentage, is Contribution divided by Sales and represents what portion of your Sales is available to pay your fixed costs and generate profit.

Conducting a break-even analysis can be challenging for landscape construction companies because they do not usually know what projects they will acquire in an upcoming year.

Each project that is bid must contribute to a certain portion of the fixed costs of operating the company. In theory, if the company is not as successful in obtaining projects in any given year, then each project must contribute more to the fixed overhead of the company. By projecting the value of projects that should be successfully bid, the company can estimate the markup needed to reach break-even and make the projected profit. Figure 5 demonstrates how to conduct a per-unit break-even analysis.

Figure 6: *Fixed Costs Example*



In the graph above Figure 6 you can see that the fixed costs stay constant even as activity increases. Of course, at some point in time, additional projects may lead to office expansion and an increase in fixed costs.

The break-even is the number of units you need to sell to cover your fixed costs. You will make a profit starting with the next unit you sell. The discussion below provides an example of break-even analysis for a landscape maintenance company with a number of home sites to maintain.

Company fixed costs $40,000

Average revenue per home being maintained per year $4,000

Variable costs per home per year.....$2,000

Contribution margin..... $2,000 per year

How many homes must the company maintain to reach break-even?

Total fixed costs $40,000

Contribution margin / unit.....$2,000

Break-even number..... 20 homes

If the company projects a $20,000 profit, how many homes must it maintain?

The first 20 homes cover all the fixed costs. Therefore, to generate a $20,000 profit:

$20,000 divided by $2,000, contribution margin to profit, after the first 20 homes = 10 additional homes.

The company would have to maintain 30 homes in total to reach its profit objective.

Break-even analysis is more difficult in a landscape installation company. The following examples provide one way to apply break-even principles to a landscape construction company.

$$\textbf{Target Sales} = \frac{\textbf{(Fixed cost +Target Profit)}}{\textbf{Average Contribution Margin per Job}}$$

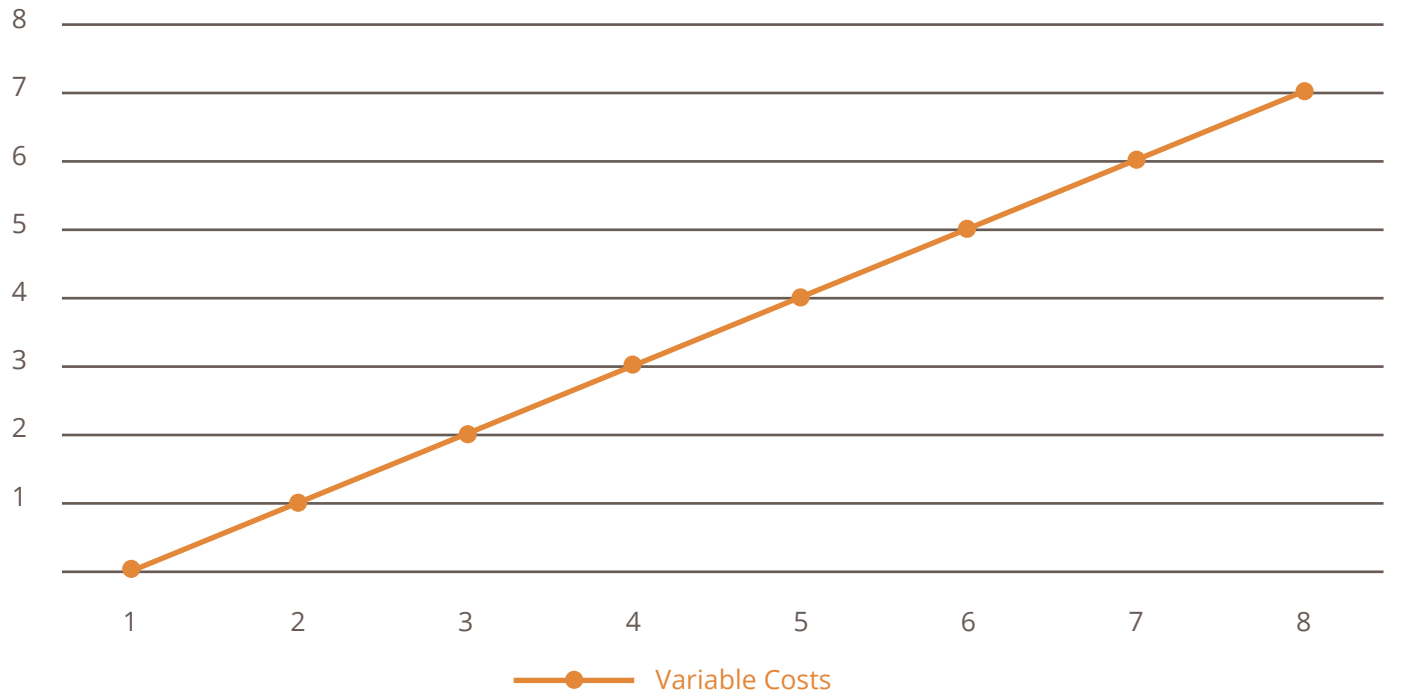
For example, if your fixed costs for a year are $200,000 and you wish to generate a $50,000 profit with a contribution margin per job of 20%, you need to generate sales of $1,250,000 to meet your target profit:

$$\frac{\textbf{200,000 + 50,000}}{\textbf{. 2}} = \textbf{1,250,000}$$

This is a simple example, but it shows the method of determining the amount of work needed to meet profit projections.

The following figures show the process of under-standing the break-even point of a business and

Figure 7: *Variable Costs Example*



In the graph above, Figure 7, you can see that as the activities increase (number of projects), the overall amount spent on project work increases.

Figure 8: *Combined Fixed and Variable Costs Example*

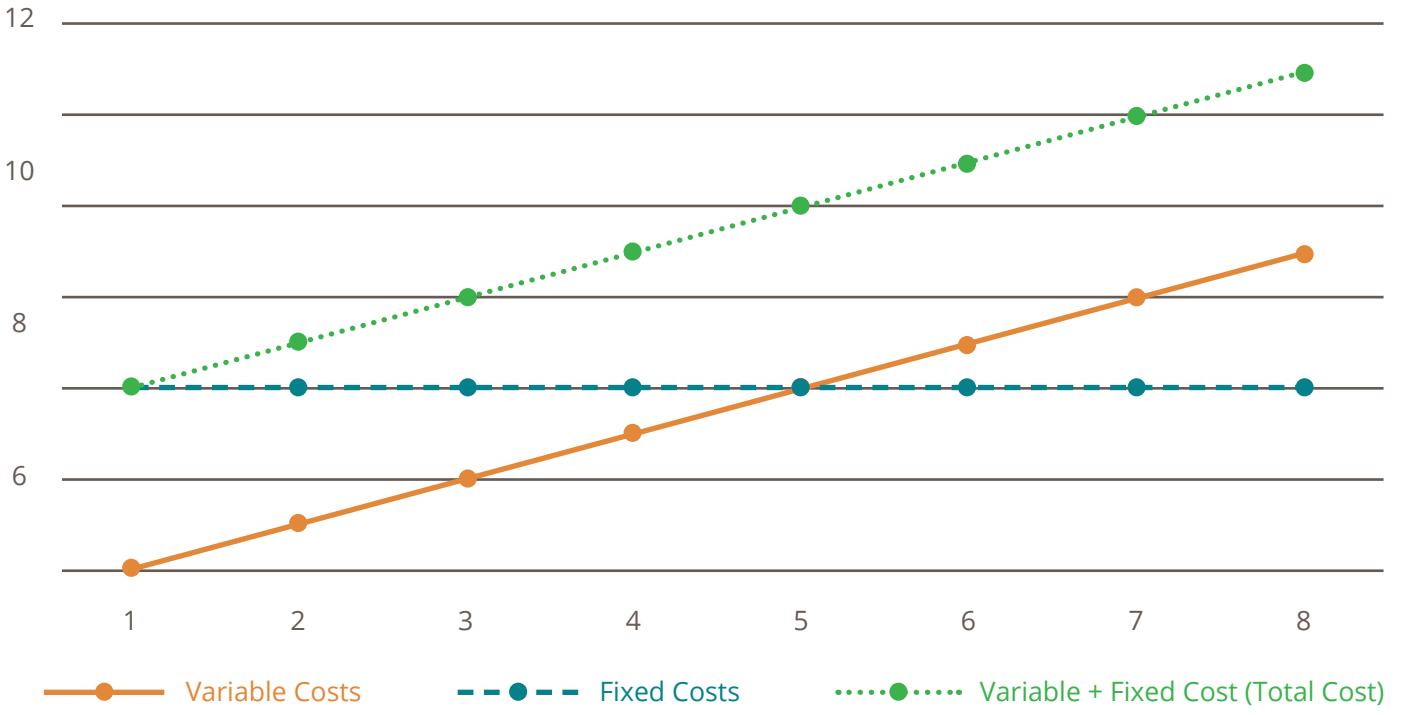
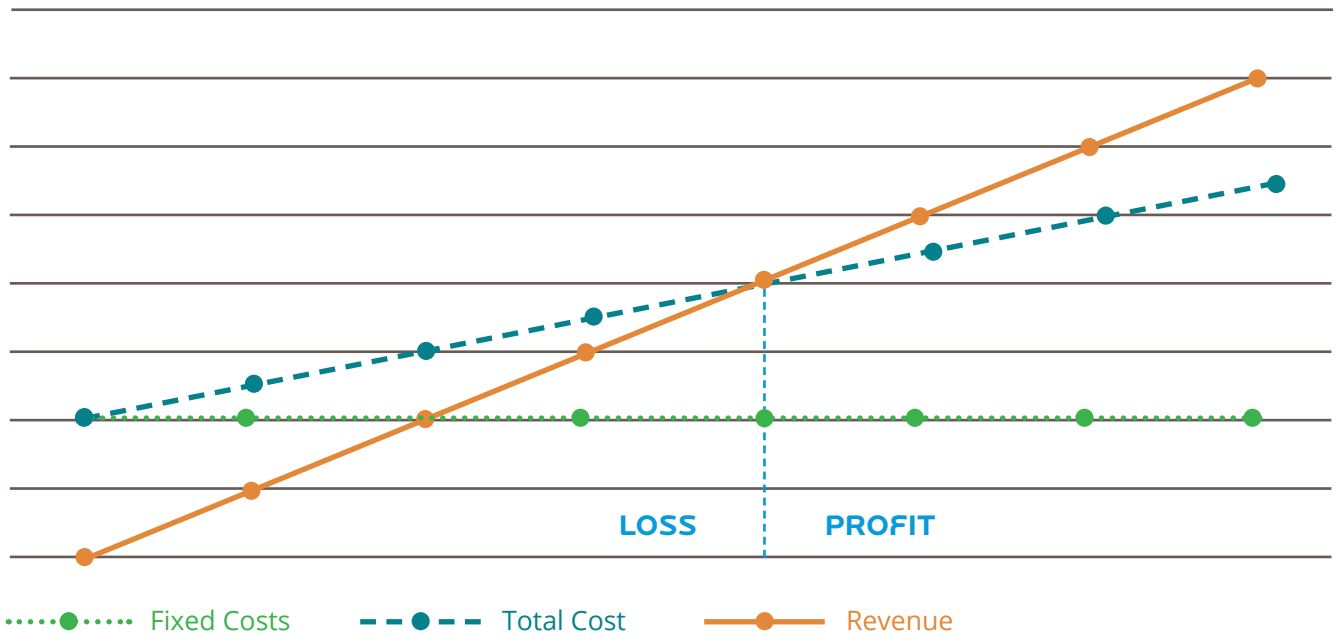


Figure 8 shows fixed costs, variable costs, and the combination of fixed and variable costs.

Figure 9: *Break-Even Point*



The break-even point is where revenue generated equals total costs.

the losses and profits made below and above the break-even point.

PRICING METHODS

Businesses use several pricing strategies. Some of the most common methods used by the landscape industry are discussed here.

THE FACTORING OR MULTIPLIER METHOD

Using this method, you multiply materials cost by a factor that may be derived from looking at past profit and loss job statements or from past competitive bidding situations. For example, if you look at the previous year with a sufficient net profit and your materials costs were 33% of your gross sales, then you multiply materials costs by a factor of 3.0. The logic says this will cover all costs and ensure net profit.

The problem with this method is that it doesn't address other factors, such as site conditions, crew size, types of equipment, subcontractors, labor rates, travel time, and overtime.

While this method sometimes works adequately, it is not recommended if you are in a competitive market or a pricing/bidding situation.

SINGLE OVERHEAD RECOVERY SYSTEM METHOD

This method has its limitations as well. Again, you first need to review past profit and loss statements and determine the average material costs for jobs. You determine that this is normally, but not always, about 33% of gross sales. Then add labor, which typically is 33%. Equipment costs, general and administrative overhead, and net profit make up the remaining 34% or so.

While this method is sometimes used, it is not recommended by most pricing experts.

THE GROSS PROFIT MARGIN (GPM) MARKUP METHOD

Using this method, you first identify the specific materials costs, labor costs, equipment costs, and subcontractor costs. You also need to add sales taxes to materials cost and labor burden costs. You then markup the total according to a predetermined gross net profit margin, maybe 30%.

MARKET-DRIVEN UNIT PRICING METHOD

Unit prices can provide valuable information to your estimate or bid process; however, the unit pricing information must be accurate. Calculate

your unit prices to include materials, labor, equipment, and subcontractors. Then derive unit prices for such things as 3-gallon shrubs, 50-gallon trees, 3" caliber trees, square foot of sod, a per-hour price for landscape maintenance work, walls or fences at so much per linear foot and irrigation systems at so much per square foot or so much per irrigation head.

Many people consider this method and the multiplier method the least accurate. This system ignores taxes, labor burden, general and administrative overhead, and any contingency issues, which should be included in a unit pricing method.

DUAL OVERHEAD AND RECOVERY SYSTEM METHOD

This method uses the elements of cost of goods sold, materials, and labor with labor burden and then multiplies them by a predetermined percentage. Equipment cost is included in indirect general and administrative overhead and subcontractor cost is marked up separately.

The advantages of this method are that it is based on historical data, allocates general and administrative overhead costs, and identifies almost all costs.

Disadvantages of the method are that it is complex and difficult to update.

MULTIPLE OVERHEAD RECOVERY SYSTEM (MORS)

The multiple overhead and recovery system (MORS) is one of the most often used and is taught in many workshops. It is firmly based on historical data, current financial statements, general and administrative overhead budgets, projected sales, and direct costs.

Using this method, you calculate the cost of materials at wholesale costs, labor hours multiplied by crew average wage or a specific wage rate, equipment hours per job multiplied by a cost per hour and subcontractors at cost per hour.

You then add sales taxes where applicable, labor burden, general and administrative overhead, net profit, and a contingency factor if necessary.

G&A overhead is often recovered by marking up the direct costs totals:

+ Material costs are marked up 10%.
+ Field costs are usually marked up 25%.
+ Subcontractor costs are marked up 5%.

These percentages can vary, but these numbers are often considered accurate.

The advantages of the MORS method include:

+ It is based on historical data for your company.
+ Direct costs of goods sold are clearly identified.
+ Gross profit margin is clearly identified.
+ General and administrative overhead is identified.
+ Net profit margin is clear.
+ It is budget driven.
+ Meaningful job costing is possible.

Disadvantages are:

+ It is complex; you must track all data.
+ The markup percentages commonly used have not been analytically processed.
+ It is difficult to adjust to changing conditions.

OVERHEAD AND PROFIT PER HOUR METHOD

This method typically provides many advantages over the other methods discussed.

Advantages are:

+ It begins with adding sales taxes where applicable and labor burden to field payroll number.
+ General and administrative overhead amounts are clearly identified.
+ The G&A overhead amount is divided by the projected number of billable hours to determine an overhead per hour amount.
+ G&A overhead is then allocated to projects based on billable hours.
+ Net margin is then calculated and added to the break-even point.

The OPPH method is simple and effective if your field hours are accurate, and your G&A overhead costs are correct. You must have accurate take-off procedures and field labor hours. It is budget driven and numbers are easy to track.

PRICING IN THE REAL WORLD

As a starting point, calculate exactly how much it costs you to produce a given plant if you do internal production and what the cost is of delivering your landscape service. Don't use industry averages or calculations that are based on information obtained from other companies. Certain types of services cost more to produce or deliver than others. Do not forget to include the cost of overhead, insurance, interest, and other fixed costs. Only with accurate cost information is it possible to determine the profit margin associated with using a particular pricing strategy.

The components of pricing strategies for a service-based business such as landscaping are more difficult than pricing products. It is often difficult to determine the exact price of a service, such as installing a plant, due to variables such as weather, soil type, and the size of the plant. Since part of the service provided by landscape professionals is intangible — such as the landscape making the customer feel good — it is difficult to determine overall demand.

In fact, landscape construction is complicated in terms of pricing strategies since it has components of both a pure product and a pure service business. The supply of plants, irrigation, soil, pavers, and so forth, is all product-based. The customer can, in theory, price-compare these components. The design and labor provided to install the landscape is a service. Even though there are the mixed characteristics of service and product in the landscape business, the basic factors impacting supply and demand, and thus price, still hold.

Price is not everything. Those in our industry too often use it as the only marketing tool; however, there is always room for quality and exceptional customer service. There is always room for the most expensive. They are not always delivered by the same supplier.

MANAGING FROM THE BALANCE SHEET

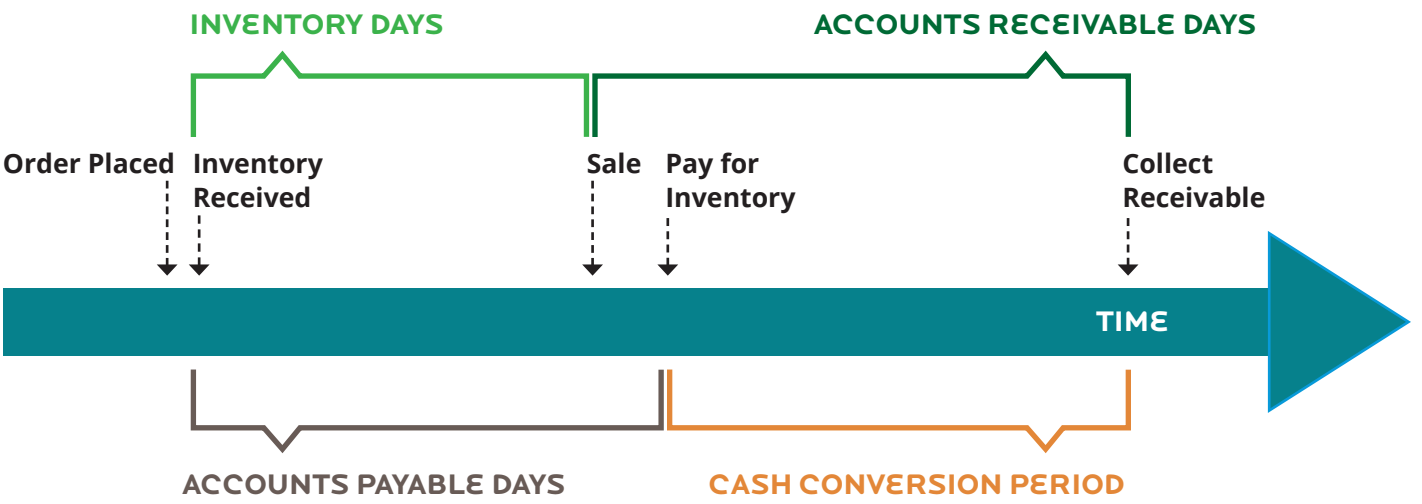
The balance sheet is a snapshot of all the assets you have to have to produce a sale and how you have paid for those assets (liabilities or equity). Managing from the balance sheet involves looking at how efficiently you are using those resources.

MANAGING WORKING CAPITAL

In the short term, the most critical efficiency factor is how you are managing the trading cycle (also known as the cash cycle). The trading cycle starts when

Figure 10: *The Trading Cycle or Cash Cycle*

Figure 11: *Working Capital Timeline*



you purchase inventory (for example, plants from a nursery) and runs until you have sold the product from that inventory, installed it for your client, and received payment.

The trading cycle is broken into two parts: inventory conversion and cash conversion. Inventory conversion is the time between when you purchase inventory and when you make a sale of that inventory. Cash conversion is the time between when you make the sale and when you are paid. Figures 10 and 11 show this cycle in two ways.

FINANCIAL IMPACT OF THE WORKING CAPITAL CYCLE

Working capital management is primarily concerned with day-to-day operations rather than with long-term business decisions.

Working capital management policies target short-term concerns, such as the:

+ Availability of raw material and inventories.
+ Continuous operation of projects.
+ Timing of billing and revenue recognition.
+ Granting of credit to customers and collecting past-due accounts.
+ Taking advantage of credit purchases and the discounts for early payments.
+ Management of the cash account.

These factors promote the smooth operation of the business on a daily basis.

So, what impact do these numbers have on cash flow? From Figure 11 (Working Capital Timeline), we

Table 18: *Record of Company's Financial Statements*

RECORD OF COMPANY'S FINANCIAL STATEMENTS	
Sales	$600,000
COGS	$420,000 (70% of sales)
Inventory	$139,000
Accounts Receivable	$98,600
Accounts Payable	$23,000

Table 18 shows a company's latest financial statements.

Table 19: *Inventory Turnover Ratios and Trade Credit*

RATIO	FORMULA	CALCULATION	CURRENT DAYS	TARGET DAYS
Inventory Days	$365 / \left(\frac{\text{COGS}}{\text{Inventory}}\right)$	$365 / \left(\frac{420{,}000}{139{,}000}\right)$	121	106
Account Receivable Days	$365 / \left(\frac{\text{Sales}}{\text{Accounts Receivable}}\right)$	$365 / \left(\frac{600{,}000}{98{,}000}\right)$	60	45
Account Payable Days	$365 / \left(\frac{\text{COGS}}{\text{Accounts Payable}}\right)$	$365 / \left(\frac{420{,}000}{23{,}000}\right)$	20	30

From the information in Table 18, we calculate the turnover ratios that appear in Table 19.

see that the cash conversion period is equal to the inventory days, plus the accounts receivable days, minus the accounts payable days (Cash Conversion = Inventory Days + AR Days - AP Days).

Cash Conversion=Inventory Days +Accounts Receivable Days-Accounts Payable Days

To lessen the number of days involved in each activity above, how much cash will be generated? By rearranging the formulas, we can calculate what the inventory, accounts receivable, and accounts payable levels will be if the target levels were achieved.

New inventory level at the end of the period:

$$\text{Inventory New} = \frac{\text{COGS}}{\text{365/Inventory Days New}}$$

or

$$\frac{\$420{,}000}{365/106}$$

Inventory New = $122,000

The new level of accounts receivable at the end of the period:

$$\text{Accounts Receivable New} = \frac{\text{Sales}}{\text{365/Inventory Days New}}$$

$$\frac{\$600{,}000}{365/45}$$

Accounts Receivable New= $74,000

New Level of Accounts Payable:

$$\text{Accounts Payable New} = \frac{\text{COGS}}{\text{365/Payable Days New}}$$

$$\frac{\$420{,}000}{365/30}$$

Accounts Payable New = $35,000

More information on managing your cash flow can be found at the U.S. Small Business Administration website, www.sba.gov

Table 20: *Impact of Using Trade Credit*

	ACTUAL BALANCE SHEET NUMBER "WHAT IF" BALANCE SHEET NUMBER NET IMPACT		
Inventory	$139,000	$122,000	$17,000
Accounts Receivable	$98,000	$74,000	$24,000
Accounts Payable	$23,000	$35,000	$12,000
Total Impact			$53,000

Table 20 shows us that by managing the balance sheet, the business will have $53,000 in additional cash at the end of the year without making an extra sale or cutting any expenses.

ACCOUNTS RECEIVABLE MANAGEMENT

We have seen how managing a business's receivables generates cash. How do you manage receivables? Managing accounts receivable starts with how you grant credit. Having a well-developed credit policy and then training staff to use it will reduce the chances of granting credit to the wrong people.

CREDIT POLICY

All companies should have written credit policies that they follow. Credit policies are normally determined by:

+ **Type of business:** For example, if most sales are retail (such as design/build landscape contracting for homeowners), it may be easier to get cash deposits and payment immediately after the work is completed. However, if you are carrying out large commercial projects, you will have no choice but to offer credit terms that are often outlined in the contract documents.
+ **Credit polices of competitors:** If all competitors in your trading area offer credit, then you will be forced to do the same.
+ **Availability of working capital:** The more generous your credit terms, the greater your need for working capital.

Before granting credit, you must know the answer to the following questions:

+ Can the buyer pay as promised? (You need to do a credit check and talk to other people in the industry that have sold to the buyer.)
+ Will the buyer pay? (What is their track record?)
+ When will the buyer pay?
+ Can the buyer be forced to pay? (This can be assured by the use of personal guarantees or by placing a lien on the project.)
+ Can you improve your cash flow by helping the buyer finance the work?
+ Can you phase the work over a period of time to help the buyer's cash flow?

COLLECTION PROCEDURES

It is important to stay on top of your accounts and their payments. You can have automated payment set-up using customers' credit cards for easy collections. Otherwise, to facilitate cash flow in your business, stay on top of collections.

Categorize slow payers before dealing with them. Do they fall into any of the following categories?

+ No ability to pay: Settle the bills as soon as possible (before it gets worse).
+ Slow bureaucracy: Try to issue the bill sooner.
+ They are slow: Factor the cost of slow payments in future prices.
+ They are not happy with your work.
+ Something out of the ordinary: Find out why and fix the problem.

The following are ways to improve your collection success:

+ Make collection calls early in the week.
+ Talk directly to the person who signs the check.
+ Make the call friendly; call the person by their name.
+ Give the buyer a chance to explain; there may be a good reason for the delay.

+ Try to get a commitment for at least a partial payment, then use that amount to arrange a regular payment.
+ Restate the agreed-on details before hanging up.
+ Send a letter/fax confirming the agreed-upon details.
+ After setting a deadline, stick to it.
+ Be persistent.

INVENTORY MANAGEMENT

Landscape companies carry diverse types of inventories, including plants; hard landscape products such as pavers, bricks, and so forth; and inventory for repairing equipment. In general, the "landscape supply" inventory is turned quickly since it is most often purchased for specific jobs. However, some companies carry supply items, so they are readily available for projects.

Maintaining inventory at an optimal level, which minimizes the number of times you run out of stock and eliminates carrying excess inventory, saves the company money and contributes to corporate profits. Companies should strive to meet what is called the "economic order quantity of inventory," which is the level that minimizes total inventory costs.

Inventory costs are impacted by the purchase costs of the goods and the cost of maintaining the inventory. This is shown by the equation below:

Total inventory costs=Total carrying costs + total ordering costs

Costs of carrying inventory include:

+ Storage costs (e.g., plants need to be watered, fertilized, and pruned; equipment parts take up shelf space in heated buildings).
+ Losses due to spoilage (which is especially important if you are carrying plant inventory).
+ Costs of tying up capital in inventory instead of other company operations.
+ Insurance costs associated with the inventory.

Carrying costs can be minimized by using "just in time" inventory control and having a local supplier deliver inventory items as they are needed.

Ordering costs related to inventory include:

+ Costs of processing purchase orders.
+ Costs of receiving and inspecting goods.
+ Freight costs (usually higher per item on smaller orders).
+ Quantity discounts that may be available on larger orders.

Applying the principles of economic order quantity involves the use of the following equation:

EOQ (Economic Order Quantity) =square root of 2DO/H

D=Annual Demand

O = Ordering Costs

D = 1,000; O = $20; H = $4

$$\text{EOQ (Economic Order Quantity)} = \sqrt{\frac{2 \times 1{,}000 \times \$20}{4}}$$

EOQ = 100

The equation above indicates that it is most efficient to order 100 hedging cedars per order.

You must also know at what point you should reorder to be most efficient. Finding this point requires you to ask yourself if it is best to order when there are 10 cedars left or 50. This can be determined by the following formula:

ROP (Reorder Point) = (L)D/365

L = Lead time to receive product;
D = Annual demand

Therefore, in our cedar example, if the time from ordering the cedars to receiving them were 10 days, the reorder point would be:

$$\text{ROP} = \frac{(10) \times 1000}{36} = 27.39 \text{ (rounded to 28)}$$

Thus, you should reorder the cedars when there are 28 left in your inventory.

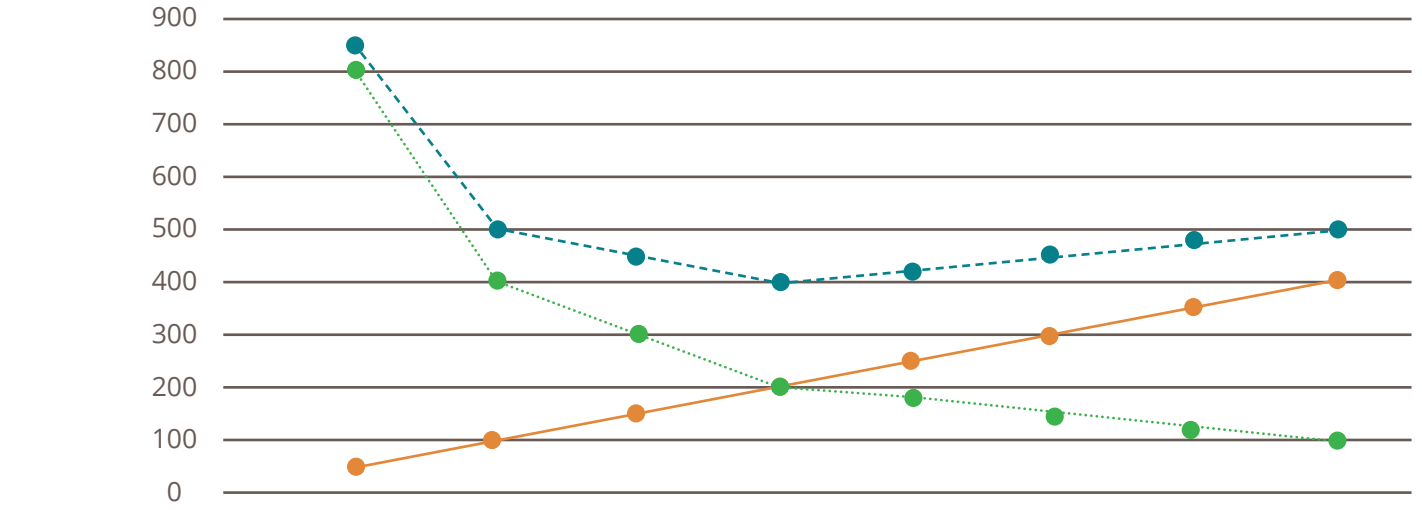
Figure 12 provides an example of producing EOQ in a graph. The economic order quantity, as noted below, is 20; re-order should happen at the point where order costs equal holding costs.

More information on economic ordering quantity is available from Investopedia, www.investopedia.com.

JUST-IN-TIME INVENTORY SYSTEMS

Just-in-time inventory control is based on having a system in place that ensures the materials needed

Figure 12: *Example of Economic Ordering Quantity*



	5	10	15	20	25	30	35	40
Holding Cost	50	100	150	200	250	300	350	400
Ordering Cost	800	400	300	200	175	150	125	100
Total Cost	850	500	450	400	425	450	475	500

on the job arrive when they are needed. One of the critical components of the just-in-time inventory strategy is quality control of the inventory items. Since the inventory items will be used within hours of arrival at a job site, there is no time for returns without stopping the job.

Effective just-in-time inventory requires close coordination with suppliers. Thus, it is important to consider supplier location, delivery systems, and the quality of the products.

SAFETY STOCK INVENTORY SYSTEMS

Safety stock inventory control ensures a certain amount of inventory is always maintained at a level that protects against stock outs.

TWO-BIN INVENTORY SYSTEMS

Two-bin inventory control divides the inventory into two portions (bins). When one bin is empty, enough inventory is ordered to fill the bin. This ensures that there is always at least one bin full of inventory items. This method works very well with commonly used smaller items, such as common vehicle repair parts, irrigation parts, and so on.

ACCOUNTS PAYABLE MANAGEMENT

A cash budget is key in managing accounts payable. It indicates the availability of cash that may be used to pay invoices as they become due. Discounts from suppliers for prompt payment can amount to substantial savings. A 2% discount is common if you pay the bill in full within 10 days; if not, full payment is due within 30 days. In business, this is commonly referred to as "2/10, n/30," where n = the net sum due. Consider that this discount is cumulative. If you make timely payments for each month of the year, you will gain a 24% benefit (2% × 12 months).

More information on record keeping and accounts payable management is available from the U.S. Small Business Administration.

CAPITAL MANAGEMENT

As your business grows, so does your need for capital. Reasons for additional capital include:

+ Sales growth.
+ Plant-expansion opportunities.
+ Cost-savings opportunities.
+ Discounts on purchases.
+ Billing practices (e.g., maintenance companies typically bill the total contract divided by 12 months, but costs vary greatly by month).
+ Seasonal factors, where inventories must be built before the selling season begins and receivables may not be collected until 30 to 60 days after the selling season ends.

+ Local or national economic conditions cause sales and profit to decline temporarily.
+ Economic difficulties of customers that can cause them to pay more slowly than expected.
+ Failure to retain sufficient earnings in the business.

Inattentive asset management may have allowed inventories or accounts receivable to get out of hand.

GROWTH

"Sales are growing faster than I had ever hoped, but I don't have any money. Why?" One of the most difficult or most overlooked needs for additional capital is for funding growth.

Take a look back to Table 3 that expresses how the business cycle works. If we look at the flow a little differently, you will see that if sales increase, you are going to need more inventory, which will result in carrying more accounts receivable, and will need more cash to pay for things like labor. Table 21 shows this pattern.

How do you estimate how much of an increase in debt or equity you will require to support increased sales before it actually happens? One way is referred to as the "growth gap." This process looks at historical results — has management looked at all areas where cash requirements may be reduced and estimates how much additional debt will be required to fund the growth.

For an example of forecasting funding requirements due to growth and a process to assist you in calculating external financing requirements, refer to: U.S. Small Business Administration, www.sba.gov

CAPITAL STRUCTURE

Capital structure is the particular combination of debt and equity used by a company to finance its overall operations and growth. The optimal capital structure is a mix of debt and equity financing that maximizes a company's market value while minimizing its cost of capital.

DEBT VERSUS EQUITY

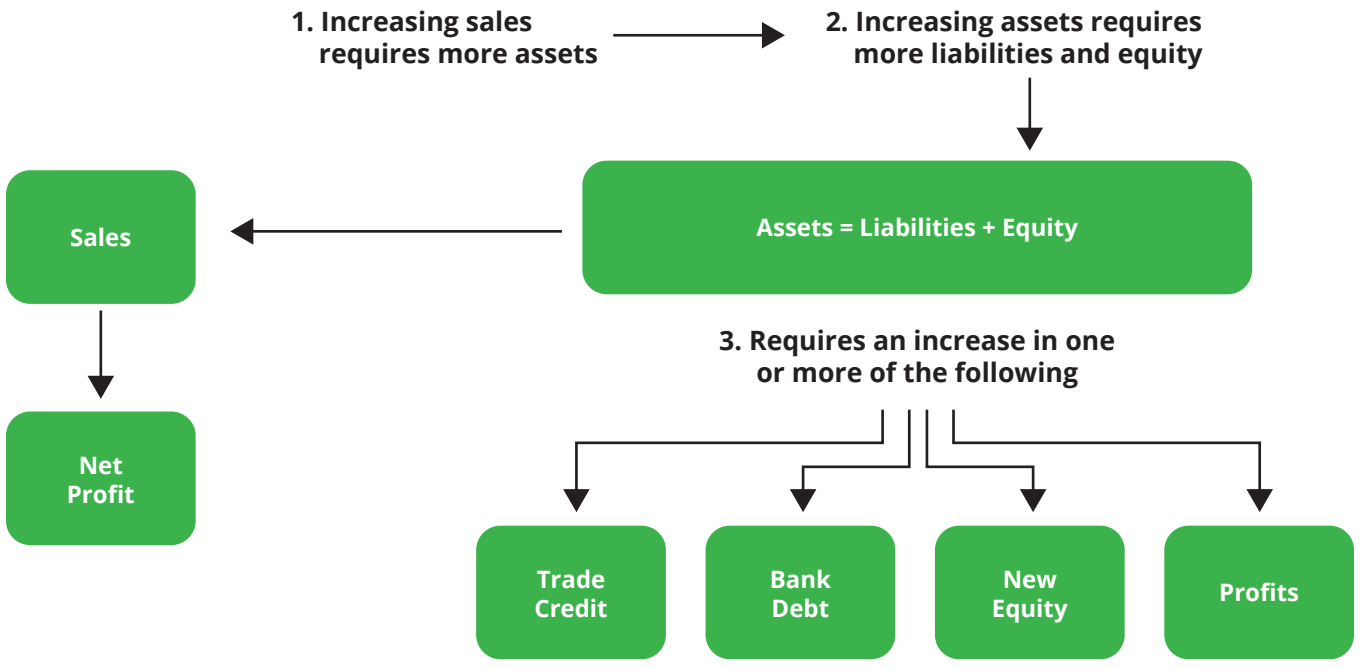
Leverage, or debt, is important to an entrepreneur because it allows you to expand beyond the limits of your own resources by using the resources of others.

When it becomes impossible to operate your business out of your own personal resources, you must seek outside capital and borrow money to finance growth. Nevertheless, you should be careful not to let your level of debt service exceed cash flow. This can negatively impact your rate of return on investment.

SOURCES OF CAPITAL

The most common source of working capital for small businesses is a bank. Banks can provide short-term

Table 21: *Funding Growth*



loans, long-term mortgage loans, loans against inventory or accounts receivable, and so on. Banks also offer a full range of banking services, including personal and business deposit and loan accounts, buying, and selling of foreign exchange, purchase, and sale (or safekeeping) of securities and other valuables, and letters of credit.

Other leading sources of financing are insurance companies, trust companies, credit unions, commercial credit and acceptance companies, venture capital loan companies, and factoring companies.

Possible sources of additional funds.

+ **Equity capital** (assets less liabilities) consists of profits not paid out as dividends (retained earnings) and money invested by the owners. Retained earnings can be reinvested as additional financing once your business is up and running. Owners' investment can be increased to provide financing by the owners personally providing funds, often this is done in the way of a share-holder's loan.
+ **Leasing** may also be considered as a source of funds. Interest rates with leasing are relatively high but the payments are deductible from income tax. Leasing arrangements are usually used for machinery, vehicles, and office equipment, where it is desirable to avoid heavy capital cost outlays.
+ **Selling an interest in the company** involves finding interested investors; often small businesses approach family members or friends to purchase a stake in the company. Owners sometime use selling shares as a strategy to harvest their value in the enterprise. An example would be an owner planning to retire who sells the business over time to someone who gradually increases their ownership and management of the company.

THINGS TO DO OR THINK ABOUT

+ Review all the pricing methods common to the landscape industry.
+ Review your company's pricing methodology and discuss with others to determine if it is the best pricing strategy for you and your market.
+ Understand break-even analysis.
+ Understand the working capital cycle and how it affects your business.
+ Review your inventory management systems and modify as necessary.
+ Review your procedures for accounts payable and accounts receivable.

CHAPTER 4:
FINANCIAL PLANNING

Planning is the lifeblood of any successful project, that includes the financial success of your business. Budgeting and managing/projecting cash flow are both essential to successful financial planning.

BUDGETING

Budgeting is preparing a financial picture of your future — what your income statement will look like at some later date. As you develop your first budget, you may uncover problems that indicate your financial goals are not within reach. In that case, the budget will also help you focus on making changes so your plan is realistic and achievable.

A budget will help you answer questions such as:

+ What sales are needed to achieve the desired profit?
+ Do we need to expand our facilities or equipment?
+ What will be the cost of the equipment that is needed?
+ Can we afford the marketing and advertising that we outlined in our plan? When is the best time to start our new sales campaign?
+ Do we have a period when sales are slow and making ends meet is a challenge?
+ Will we be able to afford additional staff?

Knowing what all your business activities will cost and when such expenses will occur will help prevent any surprises that could lead to financial problems.

Lenders and outside investors will also want to know what you are planning for the future and what results you expect to achieve. So, it is in your best interest to create a realistic budget from the outset. After the budget is completed, compare your actual results to your budget on a regular basis — at least quarterly, although monthly is recommended. Go through your profit and loss statement and make sure you understand any discrepancies.

PREPARING A BUDGET

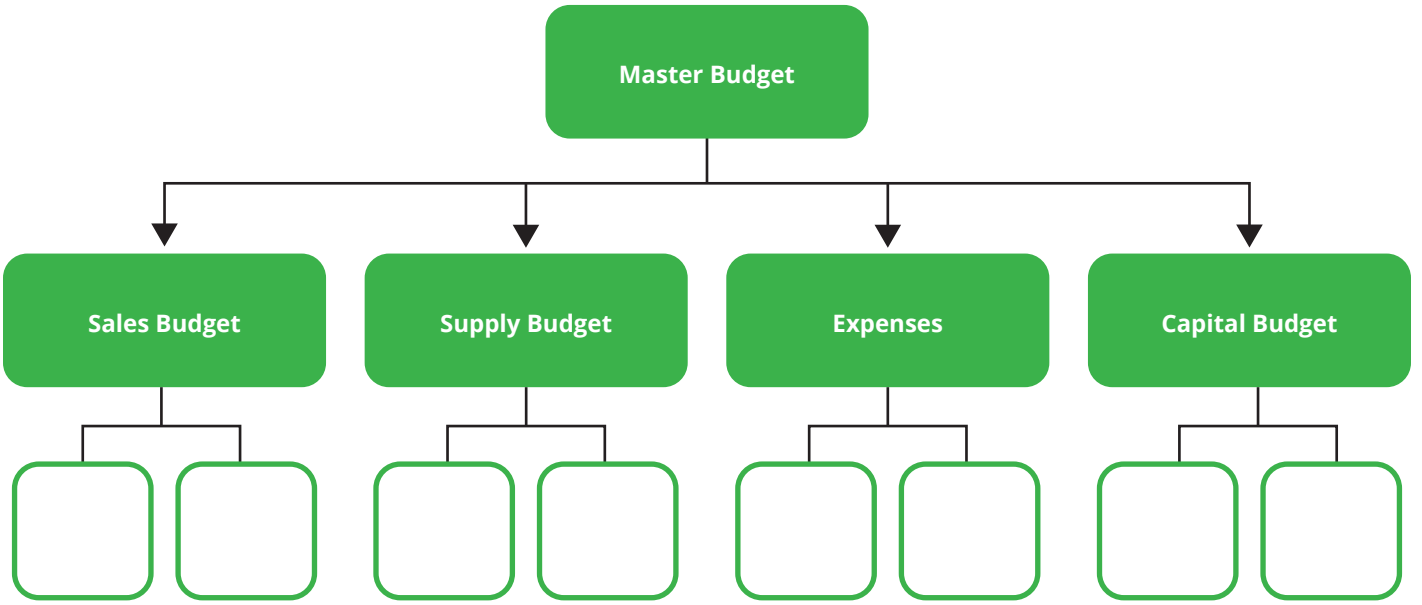
A budget is built from a business plan that is developed to achieve the goals set by management or company owners. Start with a list of three to five goals that you would like to achieve and assign a completion date to them. For example:

+ By June 30th, increase gross sales by 5-7%.
+ By the end of the fiscal year, decrease administrative costs by 5%.
+ By the end of the fiscal year, reduce inventories by 5%.

Be sure you know the scope of the budget you are producing. Scope includes the part of the business the budget covers (sales budget or supplies budget) and the level of detail it should include (reference to the part of the business).

Also, you should know the time period the budget covers. Is it for one year or shorter, or longer in term? Most budgets are for the upcoming year, with quarterly or monthly reviews. But having a long-term forecast of three to five years is excellent for planning.

Figure 13. *Structure for Preparing a Budget*



Your budget should be prepared in the same format, using the same chart of accounts as all your financial statements, so you can easily compare actuals to the budget.

Make sure you have an overview of how the budget fits your strategic plan and the assumption that you are using to make projections. In your plan to increase sales, you need to specify how you are going to achieve that increase.

HISTORICAL INFORMATION VERSUS CLEAN SHEETING

You can prepare a budget using historical information — what the business did the prior year — or you can start from scratch (with a clean sheet) and build the entire business. Starting with historical information is generally easiest and you are less likely to miss something. However, budgeting using historical data does not make you question why certain items are included or not included.

The most utilized method of budget development is to take the actual numbers from the previous year's income statement and project the next year's budget in comparison. Then you can begin to align all other costs and expenses accordingly. You can also set goals like decreasing administrative costs by 3%. You can determine what costs will remain the same or similar like rent, depreciation, administrative salaries, etc. Then you can begin to project the increases in other line items. Because of the increase in projected revenues for many items, even though they might increase in dollar amounts, their percentage of the overall budget will decrease.

You should be able to generate reasonable expectations of workflow for the next year and estimate expenses. Align expenses to be able to develop a revenue increase. To generate more revenue, you probably will have increased expenses in materials and possibly salaries. Carefully calculate increases where they are most likely to occur and look for saving in other areas. Your rent or mortgage on the building/property will most likely stay the same, yet it becomes a smaller percentage of costs overall because of your projected revenue increase.

Budgeting can be difficult, but is necessary to help manage cash flow, revenues, and expenses. If you have little experience with budgets, or feel you would inadequately do the job, work with your accountant to help you get started.

For more on developing budgets and making monthly budget projections see *Pricing for the Green Industry 4th Edition* by Frank H. Ross and published by the National Association of Landscape Professionals. The budget example in Table 22 is from that publication.

You can also use software from companies that have budgeting features.

CASH FLOW PROJECTIONS

By preparing a cash flow projection, a business owner can anticipate the cash inflows and outflows and avoid being short of cash or holding too much cash.

Table 22: Sample Landscape Division Budget

Green Industry, Inc., Landscape Division Budget

	Last Year Actual		Next Year Budget	
Earned Revenue	**$1,700,000**	**100%**	**$2,000,000**	**100%**
Direct Costs				
Plant Material	425,000	25%	450,219	22.51%
Hard Material	123,250	7.25	189,930	9.5
Direct Labor	246,500	15%	351,720	17.59
Subcontracts	61,250	3.10%	62,070	3.1
Other Direct Costs	14,030	0.83	16,400	0.82
Total Direct Costs	**870,030**		**1,070,339**	
Gross Margin	**829,970**		**929,661**	
Overhead Expenses				
Indirect Labor	61,200	3.60%	62,070	3.10%
Premium Compensation	12,480	0.73	19,340	0.97
Payroll Taxes	69,690	4.1	68,850	3.44
Worker's Compensation	22,070	1.3	29,230	1.46
Replacement Expenses	31,400	1.85	19,400	1.46
Small Tools and Supplies	18,360	1.08	20,400	1.02
Trash Removal	7,100	0.42	7,600	0.38
Uniform Expense	3,400	0.2	4,000	0.2
Total Indirect Expenses	**225,700**	**13.28**	**230,890**	**11.54%**
Equipment Expenses				
Depreciation	17,850	1.05	21,000	1.05
Equipment Rental	2,480	0.15	3,000	0.15
Fuel and Oil	32,200	1.89	41,347	2.07
Insurance	9,770	0.57	10,400	0.52
License and Fees	2,760	0.16	2,760	0.14
Repair Expenses	35,140	2.07	38,640	1.93
Total Equipment Expenses	**100,200**	**5.89**	**117,147**	**5.86**
Administrative Expense				
Advertising	4,500	0.26	5,130	0.26
Communications	6,040	0.36	6,400	0.32
Depreciation	2,150	0.13	2,150	0.11
Dues and Subscriptions	2,400	0.14	2,400	0.12
Facility Repair Maintenance	3,490	0.21	3,000	0.15
Insurance-Business	14,170	0.83	16,000	0.8
Insurance-Employee Benefit	13,000	0.76	9,134	0.46
Interest Expense	6,120	0.36	6,300	0.31
Office Expense	4,180	0.25	5,000	0.25
Professional Fees	7,400	0.44	7,400	0.37
Rent	31,000	1.82	31,000	1.55
Salaries-Administrative	45,800	2.69	45,800	2.29
Salaries-Sales and Operations	240,000	14.12	240,000	12
Selling Expense	7,650	0.45	9,000	0.45
Travel Expense	4,120	0.24	3,000	0.15
Taxes-Business and Property	4,130	0.24	4,130	0.29
Utilities	5,780	0.34	5,800	0.29
Total Administrative Expense	**401,930**	**23.64**	**401,644**	**20.80%**
Total Overhead	**727,830**	**42.81**	**749,681**	**37.48%**
Total Profit	**102,140**	**6.01%**	**179,980**	**9.00%**

More information is available at U.S. Small Business Administration's *Sample Cash Flow Projections*.

PREPARING A CASH FLOW PROJECTION

Preparing a cash flow projection is something like preparing your budget and balancing your checkbook at the same time. Unlike the income statement, a cash flow statement deals only with actual cash transactions. Depreciation, which is a noncash transaction, does not appear on a cash flow statement. Loan payments (both principal and interest) appear on your cash flow statement since they require the outlay of cash.

Cash is generated primarily by sales, but in most businesses, not all sales are cash sales. You should set up your cash flow projections with a PC spreadsheet using a software program like Excel. You can enter formulas for the subtotals and totals to eliminate addition/subtraction errors. You may want to develop two or three "what if" scenarios to help you manage better when the unexpected occurs.

Cash flow projections should be prepared for short-term (weekly/monthly) and long-term (annual/3-5 years) planning purposes. Short-term and long-term projections are used for different purposes and therefore are generally prepared differently.

Table 23, from the SME Toolkit Projecting Cash Flow, outlines the purpose of examining your cash flow in the short and long term.

Table 23: *Cash Flow Projections*

TIME HORIZON	PURPOSE
Short term (weekly / monthly)	+ To determine short-term cash position. + To estimate working capital requirements. + To plan amount of cash that can be put in a short-term investment account.
Long-term (Annual)	+ To show how much cash will be needed to run the business in the coming year. + To determine where the cash will come from. + To determine seasonal variations in cash flow. + To estimate annual borrowing requirements and ability to make repayments. + To serve as supporting information for loan applications.
Long-term Strategic (3-5 years)	+ To support strategic planning. + To determine equity needs. + To estimate borrowing requirements. + To provide supporting information for raising capital.

THINGS TO DO OR THINK ABOUT

+ Develop a departmental or company-wide budget.
+ Prepare a cash flow projection.

CHAPTER 5: **OTHER TOOLS**

The following section discusses additional tools that a company can use to guide capital budget or investment decisions. Financial tests such as cost benefit analysis, ROI and others can provide further information to be used in your decision-making processes.

COST/BENEFIT ANALYSIS

Cost/benefit analysis is a means of evaluating whether, over a given timeframe, the benefits of the new investment or the new business opportunity outweigh the associated costs. Don't assume that the cost of maintaining the status quo is high. Sometimes not investing in a new piece of equipment or services is the smarter decision.

A cost/benefit analysis of a particular investment requires the following steps:

1. Identify the costs included in the new purchase/ business opportunity. Look at this year's up-front costs as well as those you anticipate in subsequent years.
2. Identify additional revenues. Consider new customers and increased purchases from existing customers. Also include any costs associated with additional revenues. You want to look at the net increase.
3. Identify the cost savings to be gained from both direct savings and indirect savings. Look at the savings from more efficient or accurate processing.
4. Map out the timeline. Determine when you are going to incur the expenses and when you anticipate realizing the benefits.
5. Evaluate the unquantifiable benefits and costs. For example, identify risk tolerance involved.

Once you have detailed the costs and anticipated benefits, you can begin evaluating the options using tools such as payback period, break-even analysis, or net present value (NPV) analysis.

PAYBACK PERIOD AND RETURN ON INVESTMENT (ROI)

Payback period is a simple calculation estimating how long it will take a particular investment to pay for itself. To determine the payback period, divide the total amount of the investment by the annual benefits (including additional revenue plus any savings) expected. To calculate the net return from an investment, subtract the total cost of the investment from the total benefits of the return.

$$\text{ROI} = \frac{\text{(Gains-Cost)}}{\text{Cost}}$$

ROI is a means of comparing returns on money a company spends internally with returns available elsewhere. For example, you purchase a new excavator for $10,000. With your new excavator, you generate an additional $15,000 in revenue. Therefore, your ROI would be .5 or 50%.

$$\text{ROI} = \frac{(\$15{,}000 - \$10{,}000)}{\$10{,}000}$$

For more about ROI, see Investopedia's website: http://www.investopedia.com/articles/basics/10/guide-to-calculating-roi.asp.

ACCOUNTING RETURN ON INVESTMENT (AROI)

Calculating your accounting return on investment allows you to determine how many dollars in average profits you generate per average dollar of investment.

$$\text{AROI} = \frac{\text{Average Annual After-Tax Profits Per Year (AP)}}{\text{Average Book Value of the Investment (ABI)}}$$

For example, let's say you purchase a new skid-steer loader for $50,000, and at the end of five years, it has a book value of zero (five-year depreciation). You have determined that, after tax profits, this new piece of equipment will generate you the following dollar amounts:

Year 1: $7,000

Year 2: $15,000

Year 3: $20,000

Year 4: $15,000

Year 5: $10,000

Accounting return on investment would be:

$$\text{CP} = \frac{\$7000 + \$15{,}000 + \$20{,}000 + \$15{,}000 + \$10{,}000}{5\text{years}} = \$13{,}400$$

Average book value:

$$= \frac{\$50{,}000 - 0}{2} = \$25{,}000$$

Therefore, AROI:

$$\text{AROI} = \frac{\$13{,}400}{\$25{,}000} = 53.6\%$$

For most companies, a 53.6% return on their investment would be acceptable; however, all companies are different. As a business owner or manager, it is important to set a threshold value for accounting return on investment. Anything over the threshold value would indicate the investment is worthwhile. Having a threshold return that must be beaten will provide discipline and consistency to your investment decisions.

PAYBACK PERIOD

Another commonly used tool for making investment decisions is payback period. This technique determines how long it will take to recover the original investment and measures this against a set company policy on the maximum length of time an investment is allowed to take to recover the original investment.

The payback technique uses after-tax cash flow to determine the payback period. Using the example in the previous section ($50,000 skid-steer loader), where we have a five-year, straight-line depreciation (i.e., we can depreciate the equipment by $10,000 per year), this is a noncash item, so it is added back to cash flow for the year. See Table 24 for an example.

The payback period is approximately two years and three months. As with the AROI technique, each business owner should determine an acceptable payback period. In the example above, if the company policy is that capital investments in equipment must have a payback period of less than three years, the investment would be approved.

As analytical tools, AROI and payback period have several benefits:

1. Easy to understand and explain.
2. Remind everyone that wise expenditures pay off financially.
3. Adopt a long-term perspective.
4. Help compare several options.
5. Provide discipline to investment decisions.
6. Take emotion out of the decision.

However, both methods ignore the time value of money.

Table 24: *Cumulative Cash Flow*

YEAR	AFTER-TAX PROFIT	DEPRECIATION	CASH FLOW	ACCUMULATED
1	$7,000	$10,000	$17,00	$17,000
2	$15,000	$10,000	$25,000	$42,000
3	$20,000	$10,000	$30,000	$72,000
4	$15,000	$10,000	$25,000	$97,000
5	$10,000	$10,000	$20,000	$117,000

NET PRESENT VALUE (NPV)

Net present value (NPV) calculations are built on the premise that receiving a dollar today is different from receiving a dollar tomorrow. I can take the dollar I receive today and invest it, and by tomorrow, it will be worth more than a dollar. Alternatively, to receive a dollar tomorrow, I need to invest less than a dollar today. The difference between the value tomorrow and the value today is referred to as the discount rate; it can be thought of as the interest you want to receive for investing in your project.

The NPV takes into consideration your initial investment, your yearly profit, your discount rate, and the number of years over which you will receive profits. If you are comparing two options, the one with the larger positive NPV is the better alternative.

The formula for NPV calculations is the summation of the present value of future after-tax cash flows. NPV = (Today's value of expected future cash flows) – (Today's value of invested cash).

Mathematically the formula is:

$$NPV = \frac{\Sigma\, CFn}{(1+k)\, n}$$

∑ is the summation of the function; CF = after-tax cash flow, k= risk adjusted discount rate, n=life of investment (yrs.). Once you have calculated your NPV you have three options.

1. NPV > 0: Proceed with the project, as it should result in earnings.
2. NPV = 0: The project may go ahead but look at additional risk factors.
3. NPV < 0: Do not proceed with the project. The present value of the project provides less than the minimum return you have decided is necessary for investments.

This information on net present value is from the SME Toolkit Net Present Value Table. This source and the U.S. Small Business Administration can provide additional information on the subject. This technique has many complications, such as determining an appropriate discount rate, identifying levels of risk to adjust the discount factor, and understanding the formula. This is best left to your accountant or financial advisor to apply.

THINGS TO DO OR THINK ABOUT

+ Develop a cost benefit analysis for a project or piece of equipment.
+ Understand return on investment and develop an ROI for a new piece of equipment needed by the company.
+ Review and understand the concepts of net present value.

CHAPTER 6:
RISK MANAGEMENT

Risk management is a continuing process to identify, analyze, evaluate, and reduce loss exposure in your business. We first have to identify what risks we have when operating a business and then identify ways we can help limit those risks. Many of those ways to limit risks are through our normal operational procedures, but many times businesses also rely on insurance, bonds, or other ways to mitigate risks.

INSURANCE

Insurance is addressed at length in the *Contract Law & Risk Management Essentials* publication. Therefore, only a summary of key points is provided here. Additional information can be found in the SME Toolkit: Business Insurance, and from the U.S. Small Business Administration and the National Association of Landscape Professionals.

Having insurance for your company provides coverage for your operations and your employees.

There are many types of business insurance coverage that can be tailored to fit your needs. Options include general liability insurance, commercial vehicle insurance, building insurance, equipment repair insurance, business interruption insurance, workers' compensation insurance, and more. Your insurance agent will discuss the options with you and tailor whatever coverage is appropriate for your business. Green industry trade associations often make insurance coverage for their member companies available through endorsed carriers.

BONDING

Surety bonding is essentially an agreement between the contractor, the bonding company, and the customer whereby the bond guarantees that the contractor will perform the work that is stated in the contract to the best of their ability. It is a guarantee that the customer will receive the quality of work that they anticipate within the timeframe expected.

The three most common types of bonds are contract bonds (bid and performance bonds), fidelity bonds, and miscellaneous bonds.

CONTRACT BONDS

Bid bonds ensure the customer that the contractor who is the lowest bidder on their job will enter into a contract at the tendered price. If the contractor fails to fulfill their obligations under the bid bond, they must compensate the customer for the difference between their bid and that of the next lowest bidder.

Surety companies look at many of the same characteristics in a bond applicant as a bank does when issuing a loan: management performance, company's history, financial statements, and the net worth of its shareholders. This helps the surety company determine whether the contractor will have the financial capacity to complete the project.

Performance bonds ensure that the contractor actually complies with the conditions of the contract (e.g., finishes the project on time and at the proper

level of quality). When analyzing a request for a performance bond, in addition to using the basic criteria, surety companies also examine contract-related characteristics. These may include:

+ **The nature of the work:** Does the project fall into the contractor's range of expertise?
+ **Project location:** Is there increased risk because of the project's location?
+ **Completion date:** Will the long duration of the project create greater risk of the work not being completed?
+ **Legal conditions:** Are there any legal clauses stating what will happen in unusual situations?
+ **Communication:** Does the contractor exhibit good management skills, including the ability to make accurate cost projections?

Applying for bid/performance bonds is important for several reasons. First, bonds assure the customer that the contractor is acting in good faith. Second, it guarantees the customer that those who are bidding on their work can be forced to do the work (or forfeit the bond) for the price they have bid. The ability to provide bonding helps assure the owner that the bidding companies have the financial and technical knowledge to complete the work. Bonding screens out companies that can't secure bonding while providing a financial backstop if a bonded contractor doesn't perform.

FIDELITY BONDS

Fidelity bonds ensure a business owner financial coverage for losses caused by a dishonest employee. Under fidelity bonding the owner is covered up to the amount of the bond. In the case of fraud, the surety company seeks reimbursement from the employee. There are several different types of fidelity bonds, including business services fidelity bonds, employee dishonesty bonds, and ERISA fidelity bonds.

MISCELLANEOUS BONDS

Several types of bonds don't fall into a specific category:

+ **License and permit bonds:** In some industries, licenses and permits are required. License and permit bonds protect the business owner financially in the event of injury or damage caused to the public. Service industries that may require this type of bonds include contractors, gas stations, car dealers, and real estate agents.

THINGS TO DO OR THINK ABOUT

+ Review your company's insurance policies and procedures.
+ Review your company's bonding procedures.
+ Develop or refine any procedures related to insurance and bonding.

CHAPTER 7:
WORKING WITH YOUR FINANCIAL INSTITUTION

Establishing a strong relationship with your bank and banker is critical. The financial institution will want assurance that the company will be profitable enough to pay the money back and will consider the factors illustrated in Table 25 — the 5 Cs of Credit.

WHEN REQUESTING A LOAN

+ Get a referral from someone who has a good relationship with the banker.
+ Do not wait until you are desperate for the money — plan ahead.
+ Develop alternative relationships — keep all your options open.

WHAT THE BANKER WILL WANT TO KNOW:

+ How has the business performed lately?
+ What is the strength of the management team?
+ How much money do you need? How much are you putting in?
+ What are you going to do with the money?
+ When do you need the money?
+ How and when are you going to pay it back?
+ Do you have an existing banker? Why do you want to switch?

Table 25: *The 5 Cs of Credit*

CHARACTER	Management—What evidence exists that indicates that this person can manage affairs well enough to repay the loan?
CAPACITY	Repayment ability—What cash is available to pay back loans?
CAPITAL	Investment/equity—How much money do the owners have in the business compared to what others have invested?
CONDITIONS	What is the state of the industry and the general outlook for the economy?
COLLATERAL	Security—If everything else fails, what is "backstopping" the loan?

WHAT YOUR BANKER WILL WANT TO SEE

+ Historical financial statements (accountant prepared, last three years).
+ Pro forma (projected) financial statements (income, cash flow, and possibly balance sheet).
+ Personal financial statements.

SOME TIPS FOR THE PRESENTATIONS

+ Be familiar with all the data in the proposal.
+ Do a trial run presentation with a confidant.
+ Arrange an appointment with the manager.
+ If you do not feel confident of the manager's understanding of your proposal, you are better off shopping around (even within the same bank if you wish).
+ Arrange for the lender to visit your business.
+ Deal with a trained commercial lender.
+ Do not withhold information. Most bankers are cautious and conservative; any misleading information will destroy the all-important mutual trust required.
+ Keep your banker informed about your successes and failures. Experience clearly shows that if you do this, the banker will be helpful when your business is struggling.

Plan your financing so that your proposal does not appear "urgent" and plan ahead, so you do not surprise your banker. Also look at U.S. Small Business Administration resources and *What Lenders Look For and Tips for Winning Them Over* by C. Beesley.

LEASE VERSUS BUY DECISIONS

Business owners have three decisions to make when acquiring capital assets, in particular rolling stock. These are:

+ Purchase new.
+ Purchase used.
+ Lease.

The following are the main advantages to leasing:

+ There is typically no need for up-front cash; thus, the company's cash can be used for other purposes.
+ Leases are off the balance sheet and, therefore, do not impact debt/equity ratios.
+ Leasing provides a hedge against equipment obsolescence since equipment is typically leased for periods shorter than the life expectancy of the equipment.

The disadvantages to leasing are:

+ Leasing requires regular (monthly) payments and is, therefore, a drain on cash flow.
+ It is often difficult and expensive to get out of a lease if your company no longer needs the equipment.

To make the decision on lease versus purchase, consider the following factors.

TAX AND DEPRECIATION IMPLICATIONS

In most jurisdictions, 100% of the lease payment is considered a business expense and is, therefore, allowed to be written off. This compares to purchases, where only the government-allowed depreciation is permitted to be written off for tax purposes.

INTEREST RATES

Compare interest charges of leases versus purchases. Usually, interest on leases is significantly higher than interest on purchases.

INVESTMENT OR INTERNAL RATE OF RETURN

When comparing lease versus purchase, consider what rate of return the money that you have invested into a down payment would have made you if you had used it for other purposes within your company.

THINGS TO DO OR THINK ABOUT

+ What are the five Cs of credit?
+ What documents and information are needed to request a loan?

Table 26: *Financial Ratio Input Sheet*

FINANCIAL RATIO INPUT SHEET

					Debt to Equity	Interest t Coverage	Gross Margin	Operating Margin	Return on Assets	Return on Equity	Return on Sales	Current Ratio	Quick Ratio	Working Capital	Asset Turn over	Inventory Days	Accounts Receivable Days	Accounts Payable Days
Item		**Location**	**Line**	**Amount**														
Total Debt																		
	Total Current Liabilities	Balance Sheet	16		x							x	x	x				
	Long Term Debt	Balance Sheet	18		x													
Total Owners Equity																		
	Share-holder Loan	Balance Sheet	19		x				x									
	Owners Investment	Balance Sheet	22		x				x									
	Retained Earnings	Balance Sheet	23		x				x									
EBIT		Income Statement	9			x		x										
Depreciation		Income Statement	8			x												
Current Portion of Debt		Balance Sheet	15			x												
Interest on Debt		Income Statement	10			x												
Gross Profit		Income Statement	6				x											
Sales		Income Statement	1				x	x			x				x		x	
Net Profit		Income Statement	13						x	x	x							
Total Assets																		
	Current Assets	Balance Sheet	5						x			x		x	x			
	Non- Current Assets	Balance Sheet	9						x						x			
Cash		Balance Sheet	1										x					
Accounts Receivable		Balance Sheet	2										x				x	x
Goods Sold (COGS)		Income Statement	5													x		
Inventory		Balance Sheet	3													x		
Accounts Payable		Balance Sheet	12															x

Table 27: *Ratio Worksheet 1*

RATIO WORKSHEET 1		YEAR				
RATIO	**CALCULATION**				**BENCHMARK**	**COMMENTS**
Leverage Ratios						
Debt to Equity	Total Debt / Total Owner's Equity					
Interest Coverage Ratio	(EBIT+Depreciation Expense)/ (Principal + Interest Payments)					
Profitability Ratios						
Gross Margin	Gross Profit / Sales					
Operating Margin	EBIT/Sales					
Return on Assets	Net Profit / Assets					
Return on Equity	Net Profit / Net Worth					
Return on Sales	Net Profit / Sales					

Table 28: *Ratio Worksheet 1 Year*

TABLE 28: RATIO WORKSHEET 2		YEAR				
RATIO	**CALCULATION**				**BENCHMARK**	**COMMENTS**
Liquidity Ratios						
Current Ratio	Current Assets/ Current Liabilities					
Quick Ratio	(Cash +(AR)) /Current Liabilities					
Working Capital	Current Assets – Current Liabilities					
Operating Ratios						
Asset Turnover	Sales / Assets					
Inventory Days	365/(COGS/Inventory)					
Accounts Receivable Days	365/ (Sales/Accounts Receivable)					
Accounts Payable Days	365/ (COGS/Accounts Payable)