

# Evaluating the Practices of a Small Business: A Case Study

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Companies are in constant search to increase profits. The company success is dependent on its standard operational procedures, otherwise known as SOP. Golden State Irrigation and Noack Pump is a non-union merit shop contractor that performs irrigation work in the California's central valley. This paper researches the utilized methods of the company to see if it is operating at an optimal level. The methodology used in this project is a case study, where multiple jobs, income statements, and cash flows were analyzed, along with conducted interviews. Both qualitative and quantitative data were collected in the investigation of this case study. The business practices of Golden State Irrigation and Noack Pump have similarities and discrepancies to industry standards. After examining the data, it was seen that accounting for all facets of labor is always a difficult operation. There are many new and innovative business practices that are catered towards small businesses and could help fill the gaps in labor tracking and job costing for both direct work and idle time. This project proves that a company can be performing at a profitable rate and have a healthy standing but can still have room for improvement in its standard operational procedures.

Key Words: Irrigation, Optimization, Efficiency, Standard Operational Procedures

## Introduction

California's central valley is a leading region for agriculture. Small and large companies compete to win irrigation bids on different jobs, and bigger size companies utilize some of the more developed programs to perform at an optimal level. The industry is competitive and constantly growing, and the success of a job affects the future prosperity of a company. All firms work to improve their methods that are used throughout each phase of a job. Small businesses often have their own implemented techniques in place. There are many new and innovative procedures that capture costs, and smaller businesses are often not ready to engage in these ways due to their limited capital resources. Golden State Irrigation and Noack Pump is a small business located in Stockton, California that performs irrigation and pump work for agriculture in the central valley. They were previously two companies that merged into one S corporation. The company has been performing at a successful rate for the past six years, yet, they are inaccurately performing the phases of their work due to their standard operational procedures.

Being a profitable company requires complicated steps, most of which are done differently depending on business size. Overall, all sized companies must find projects, create estimates, design schedules, track labor and manage work. The level of accuracy in the beginning phases of a job, such as estimating, will result in a larger amount of future success for the company. Figure 1 illustrates the importance of accuracy in the project phases. The exactness in a company's bid is directly correlated to the amount of profit it earns. Golden State Irrigation and Noack Pump differs from a larger company because it utilizes self made practices.

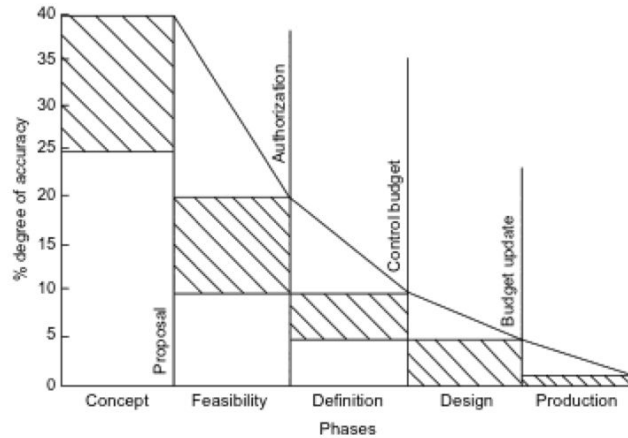


Figure 1: Phase of Project/Accuracy Curve

### *Business Practices at Golden State Irrigation & Noack Pump*

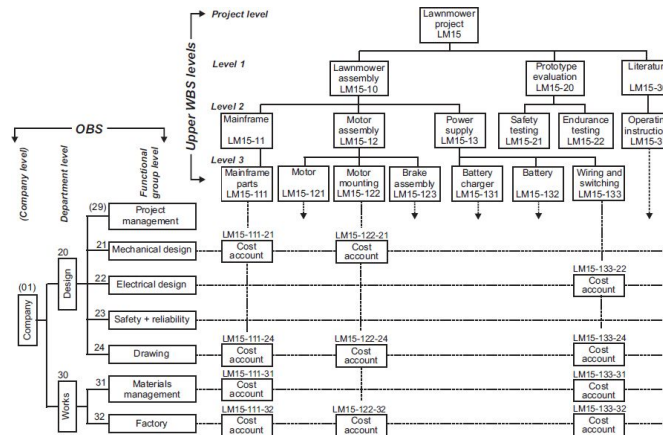
Golden State Irrigation and Noack Pump have a specific procedure to win and pursue irrigation jobs. One of the preliminary steps to being awarded a job in this industry is being in constant contact with clients. One of the four salespersons does investigative research by scoping local areas and contacting past clients. Once a job is made known, the company works to come up with a bid proposal. The salesperson narrows out the job scope by identifying the type of land, the crop, and the size of space that is being awarded. The pump and system type are then defined along with special design requirements of the job. The modeling device, CAD, is utilized by its designer to create the proposed plan. Once the model is created, the sales workers use the CAD design and identify its amount and the types of material and equipment needed. Sage is then used to account for the cost and management of each material necessary for the job. The costs of products in the system are updated with the market fluctuations over time. Once all of the materials and scope of work are identified, the amount of labor is determined.

Determining the labor is executed by the company's service worker. First, the man hours are established by studying the job scope and quantity take off, and then the amount of laborers are specified. The system has the same idea of a work breakdown structure, but it is not as organized. Once that step is done, the determined amount of laborers are entered into the company's self created labor bid excel program that estimates the cost. Prices are constantly updated to compete with market changes. Once the labor cost is finalized, all of the estimates are combined and presented through a bid contract. If the project seems profitable, the company will send the bid out to the client.

Once a job is awarded to Golden State Irrigation and Noack Pump, the project management follows. The head installation worker and the salesperson are both leaders in running that project. The labor hours are tracked daily through time cards. After the cards are collected, they are entered into the company's self made excel program that summarizes the hours with each laborer's work order number. The excel program accounts for travel time of the workers. Once the job is complete and all of the labor hours are tracked, and a gross profit journal for that project is created. The gross profit journal identifies the net sales, the cost of goods sold, the gross profit amount, the profit percent, and the commission amount for each item used on the job. The journal is reviewed to reflect the company's outcome on that specific project. Golden State Irrigation and Noack Pump use the gross profit journal as an evaluation method. Overall, the company utilizes business practices that are familiar in the industry but still have room for improvement.

## *Business Practices in the Industry*

Most companies in the industry use comparable mechanisms, but at a much larger scale and of which are more technologically advanced. The beginning stages of hearing about a job and communicating with past clients is very similar to Golden State Irrigation and Noack Pump’s system. Companies are either contacted by past clients or learn about a job by doing prospecting. One difference is that bigger sized businesses often require a certain amount of hours minimum on a job before creating a bid, that way they do not lose money when performing work. Once the bidding of a job is started, a work breakdown schedule is often created. A work breakdown structure is essentially the scope broken down into individual pieces of work. This method gives a better idea of how much labor is needed and who should be doing what task at what time. *Project Scheduling and Cost Control* defines a work breakdown schedule as, “a task oriented grouping of project elements that organizes and defines the total scope of the project. It is a structured way of breaking down a project into work packages.” This system is key when identifying the amount and type of labor needed for that specific job and it allows all members of the project to have a better idea in the beginning phases. A project work breakdown schedule provides the basis for detailed planning, project control, and management. Figure 2 illustrates an example of a work breakdown structure.



**Figure 2: Example of a Work Breakdown Structure**

Another process that is different from Golden State Irrigation and Noack Pump is the scheduling of a job. Most large companies use a scheduling program such as P6 or Microsoft Project. Golden State Irrigation and Noack Pump hand write out when each task is to be completed and on what day, which may be due to the size of the jobs they are completing but overall it is less efficient. Most scheduling programs can catch issues, account for weather delays and point out which tasks need to stay on the critical path. A cost loaded schedule can also be incorporated, which gives project teams a better idea of the work relationship with the company’s billings. If an inaccurate schedule is being used, a company can ultimately lose a large sum of money and not come out of the job as profitable as planned.

Efficient job costing is imperative to the success of a company. Larger businesses are often more effective in their take offs because they typically invest money on training in estimating, where smaller companies will use prices from previous similar jobs. An accurate estimate of the work on a future job will make or break a company’s profit. Monitoring and controlling the job is the next task that large firms tackle in a different way. A company that is doing multiple jobs a day must have a more detailed management program than a company that only has two or three jobs during a period of time. Tracking labor is a huge priority in large companies because it accounts for an enormous sum of their costs. Companies are investing in applications and technology that will track employees by GPS instead

of the older time card method. Since bigger businesses work on larger projects, they often have project teams including managers, engineers, and field superiors just for specific jobs. Quality and performance control are enormously important in a success of a company. Large companies often compare planned progress to actual project progress to understand the issues that are occurring. Performance control charts are constantly generated to understand cost and schedule variances. These variances are then used by the companies finance team to adjust the numbers for over and under billings. This adjustment is the true mark of a company's profit. In conclusion, small and large companies often utilize different methods to complete jobs of the same work.

### *Lessons Learned from Industry Building Processes*

There is an amplitude amount of information that Golden State Irrigation and Noack Pump can utilize from larger companies in the industry. Accuracy in the business practices before job completion is vital to a company's survival. Although the complexity of jobs change with the size of the business, most of the methods can be related and useful in all businesses, large or small. The following are techniques that can be used:

- Implementing 4 or 8 hour minimums. Service calls usually end up losing small companies money because they spend more paying for the labor than they charged for the limited amount of work.
- Create work breakdown structures. Work breakdown structures allow the project team to get a better idea of the relationship between the performed tasks and the labor and cost.
- Investing in fully developed estimating programs and training for employees.
- Investing in scheduling software.
- Tracking labor in an updated technology.
- Monitoring programs through project evaluations. Observing and evaluating jobs on a certain scale daily allows the company to avoid major mistakes in the long run.
- Generate cost and schedule variances. Variances allow companies to compare what they budgeted for to what was actually spent, which is valuable information when bidding future jobs.

### **Methodology**

The objectives of this case study are as follows:

- To highlight the utilized business practices of Golden State Irrigation & Noack Pump
- To compare practices to larger businesses in the industry
- To highlight the lessons learned from the company's techniques
- To report whether or not the company captures costs effectively
- To recommend to Golden State Irrigation & Noack Pump new efficient techniques

The methodology chosen for this project was primarily qualitative taken from two past jobs that the company completed, along with some quantitative data extracted from the business' past income and cash flow statements. The qualitative data was gained through analyzing two of the company's past jobs, and all of the practices used for those jobs. Information was also acquired through interviews with the company's president and employees. After gaining a sufficient amount of knowledge on the company's culture, the interviews captured an understanding of the practices that employees of Golden State Irrigation and Noack pump utilized. I have analyzed the qualitative and quantitative data together to come up with a better understanding of the optimization and efficiency of the company.

## Case Study

The practices of two different projects from the past year were investigated and analyzed. The previous year's income statement and cash flow statement were examined to capture quantitative research. Overall, it is clear that the company is healthy on paper, but this case study proved that a company could be financially stable and still have room for improvement in business practices.

### *Project 1 Specifics*

The following are additional key details relative to the paper:

- Job Location: French Camp, California
- Proposed Area Amount: 72 +/- Acres
- Crop: Almond
- Estimated Cost of Labor: \$34,611.55
- Actual Cost of Labor: \$20,050.02
- Original Contract Amount: \$68,892.50
- Final Net Sales Amount: \$69,449.36
- Gross Profit: \$21,439.40

### *Project 2 Specifics*

The following are additional key details relative to the paper:

- Job Location: Escalon, California
- Proposed Area Amount: 40 Acres
- Crop: Walnuts
- Estimated Cost of Labor: \$18,775.00
- Actual Cost of Labor: \$16,050.00
- Original Contract Amount: \$52,050.67
- Final Net Sales Amount: \$51,087.15
- Gross Profit: \$16,850.75

### *Income Statement*

The following is additional key data:

- Total Revenue: \$2, 270,028.87
- Gross Profit: \$1,002,890.26
- Total Expenses: \$735, 301.53
- Net Income: \$244, 809.98
- % Revenue: 10.78%

## *Cash Flow Statement*

The following is additional key data:

- Cash & Equivalent at Begin of Year: -\$137,895.01
- Cash & Equivalent at End of Year: \$2,048,850.83

## *Summary of Quantitative Data*

Overall, the data that was examined proved that the company is and has been operating at a profitable rate. The two randomly selected jobs that were analyzed both brought in a profit and were successful, yet there is always room for betterment. After inspecting these jobs, the biggest discrepancy that was found was between the estimated labor cost and the actual labor cost. This shows that there could be inaccuracies with the company's labor estimating technique. The variance in these amounts did not cause the company to have a lesser profit but if there is way to be more precise in the estimating, then more future jobs could be won. The income statement showed an eleven percent profit from the revenue with a high net income for the business size. According to Investopedia, "A company that has an operating profit margin higher than 11% would have outperformed the overall market." which puts Golden State Irrigation and Noack Pump in a good position. It would be beneficial to have analyzed the operating profit as it has changed over the years and then examine the results. The cash flow statement presented all of the operating, investing and financing activities from the past year. It was positive because there was a surplus in cash at the end of the year when the beginning of the year showed a negative.

## **Results and Discussion**

The following research was gathered through interviews with Golden State Irrigation and Noack Pump's president, as well as review of given documents throughout the course of the case study. The objective of this project was to learn about the practices used at this company to see if they were reaching optimum business profit and working efficiently.

## *Analysis and Goals*

Golden State Irrigation and Noack Pump is a healthy company. It has been found that although they are in good standing on paper, they have room for improvement in their business practices and techniques. First, due to the randomization of job sizes that the company completes, a different method of billing payments is used compared to the traditional front-loading technique utilized in the industry. Around seventy-five percent of the jobs that the company typically undertakes are forty to fifty thousand dollars and take about a weeks time to complete. The rest of the work that the company carries out are one million dollar jobs that require four to five months of time. Once a job is won, the company will typically bill a deposit that is twenty-five percent of the total bid amount, and then bill periodically after completed tasks. The same method is used for all sized jobs regardless of the bid price. For bigger sized jobs, front loading could be beneficial in order to have a sufficient amount of cash flow to complete the tasks that the job requires. It is also useful to have an adjustment percentage when adding revenue into the income statement to account for what has not been spent on a job yet. The business could improve their efficiency in other ways as well. Besides explaining all of the business practices, Peter Bernadicou, Golden State Irrigation and Noack Pump president, mentioned in the interview how the company lacks in sales and execution of projects. He said there is room for improvement in those categories since the company wants to bring in a higher profit. A significant finding from this case study was that there is often a difference between the estimated labor amount and the final

amount billed due to company discounting prices in order to win jobs. Bernadicou mentioned that a better grasp of the labor tracking would definitely help the bottomline profitably. After examining the costing and labor tracking techniques, the company is lacking in organization of these tasks which could ultimately, increase the company's profitability. His goal for the company within the next five years would be to make ten million in job profit with a twelve percent net profit. He believes this could be reached by perfecting the company's business practices, bringing on another sales worker and growing the pump business by doing more industrial jobs.

### *Recommendations*

After collecting the data for this case study, it is evident that Golden State Irrigation and Noack Pump has been performing at a profitable rate for the past six years. Once analyzing the business practices that are used by the company, it was proven that there is still room for improvement. Although they cannot perform all tasks in the same manner a large business would, they could still refine their methods and improve on their profitability. The first recommendation should be related to the company's job acceptance policies, and it would be beneficial to have a hour minimum requirement before agreeing to jobs. Since a portion of the company's money comes from service calls, they should make sure they are not losing a profit by requiring a four or eight hour minimum in order to do a job. The next recommendation is within the job planning practices. If Golden State Irrigation and Noack Pump utilized a work breakdown structure, they would be able to have a clearer vision of the labor related to each task of a job. This could help the company pinpoint potential issues in the project and make sure the job is appropriately staffed. Investing in a scheduling program would also be very beneficial, regardless of the job size. It is a helpful and organized way to inform team members of certain tasks and the days they are to occur.

Accurate estimating is key for financial gain within a company. First, giving employees education and training within the estimating field could lead the business to having more accurate bidding numbers. Second, there are a lot of softwares today that could be incorporated with the use of Sage, that will lead to greater exactness. Some of these programs are known as Bluebeam, STACK Estimating, and ProEST Estimating. These programs can tie in bid analysis, cost estimating and digital takeoffs within a single solution. Golden State Irrigation and Noack Pump should utilize these softwares in order to gain a more precise number during bidding. An additional improvement that could occur is within the company's management of jobs. Tracking labor and work on a job could be one of the reasons that the company isn't bringing in an optimum profit. It is imperative that all workers are being properly tracked and that their hours are not being miscounted on jobs, and that can be stopped by updating the time card process. Instead of using paper time cards, there are new applications that can track workers location and hours when at work that way they are being accounted for. ClockedIn2 or IPunchClock are newly developed applications that help manage multiple independent timesheets using the Iphone's location tool. Homebase is also an application that helps with labor tracking, and according to Forbes, "...allows a business owner to do their scheduling online and enables employees to punch in on an iPad, rather than using a time clock, a far more efficient method of keeping track of hours worked." Applications and system techniques are being created to help small businesses. Adapting to innovative resources and programs would help the company refine and improve where there are inaccuracy gaps.

### **Conclusion and Future Research**

As the size of a company affects its business practices, it is found that Golden State Irrigation and Noack Pump are efficient with their work. The new and more developed programs are usually better suited for larger companies that are operating multiple jobs at time, but there are systems created to cater toward family owned and smaller businesses. Companies that are not as big in size can save money and use self implemented methods to achieve a positive success rate. Although there are recommendations that Golden State Irrigation and Noack Pump can work

on, it is harder for small businesses to execute certain techniques that are used industry wide. This report was only able to analyze two jobs, one income sheet and one cash flow statement, which means that there is a lot more quantitative data that could be used and of benefit for future research. It is hard to get a full understanding of a company's health and profitability without examining all documentation from the past six years.

If there was more time, qualified people could examine all of the past income statements, balance sheets, and job costing forms to analyze how the company has been either improving, declining or staying the same within the years. It is easy to see that the company is healthy right now, but it would be more beneficial to see what has changed within the time and how it has affected the profitability. Once all the business years are examined, there could be a better reading of the company's standing and efficiency in business practices. When comparing the business' practices to industry standards, there were a large amount of differences. This report brought up certain areas that the company can improve on, such as estimating, tracking labor, and sales. Overall, this case study proved a healthy standing for Golden State Irrigation and Noack Pump, and examined the daily practices that are utilized while introducing new recommendations.

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