

# Precast Concrete Manufacturing Business Plan

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The Central Coast of California has been under continuous development since the Great Recession of 2008. Throughout this development, there has been an exceedingly high demand for precast concrete products, specifically in the Civil sector of the construction industry. This demand has emerged from the lack of concrete product manufacturers in this region of California. This project introduces a business plan for a new precast concrete product manufacturer by the name of J.W. Concrete Products LLC. The objective of this business plan is to reflect the benefits and potential expansion of a locally owned and operated concrete product manufacturer to prospective investors. The plan itself consists of; the structure of the organization, detailed description of the purpose, objectives and goals of the company, the equipment and materials required to begin operations, a detailed description of the costs associated with getting the organization up and running, and lastly an outline of future development and expansion of the business. Introducing a new precast concrete product manufacturer in the Northern Santa Barbara and San Luis Obispo County will introduce a more competitive market and benefit the entire precast concrete market.

**Keywords:** Precast Concrete, Business Plan, Entrepreneurial

## How Project Came to Be

The origin of this project came about in the summer of 2020 when a colleague and mentor referred to the fact that California suffers from a suspicious lack of precast concrete manufacturers. This colleague has 30 plus years of experience in the heavy civil construction industry and understands that there is something unbalanced about the precast concrete manufacturing in California. After doing some research, it was discovered that there were only a handful of these manufacturers that provided concrete products specifically for civil projects. Over the next few months, there were continued discussions about the potential of forming a new local manufacturing plant that could provide high quality products in an otherwise uncompetitive market. This idea began as an umbrella organization of J.F. Will Company, a local engineering contractor based out of Santa Maria. This organization would manufacture all these contractors' necessary precast concrete elements, in the hopes to one day expand operations into a full manufacturing plant for the entire Central Coast. Over time it was decided to investigate developing a draft of a business plan that could be used to gain capital from investors if this entrepreneurial venture was ever pursued. After taking CM 460, it became clear that submitting this formal business plan as a senior project would be a great investment of my time to work on a potential future business idea.

## Process

The process began with researching the fundamentals of precast concrete. Understanding the design and manufacturing process of these products was critical in developing an initial draft of the business. The way this research was conducted was by contacting various precast concrete manufacturers directly or by references information they have posted on their websites. A few organizations even had step by step guides on how these products were fabricated and delivered to clients. On a fundamental level, these manufacturing plants use a variety of different casting molds that can be adjusted to fit specific needs of custom products. The concrete is then placed into these molds via a mechanical boom and left to cure for several days. Once the concrete has finished curing, the molds are broken off from the product and loaded onto a delivery truck that contains a knuckle boom attachment.

This truck can then directly delivery the product to a specific project and install it with very minimal labor requirements. Many months went into researching these processes because it was imperative that a comprehensive understanding of precast concrete manufacturing was achieved. This phase of the project took the longest out of any other because there is a lot of intricacies when it comes to precast concrete manufacturing. After this researching phase was completed, it was time to develop an outline for all the necessary topics that would be presented in the formal business plan. To aid in this stage of the plan, a business plan service called LivePlans was used. This service allows you to create a custom formal business plan and develops it into a presentable final deliverable. Utilizing this online tool, the project was developed much more efficiently and there was less time spent researching the necessary topics needing to be covered in a formal business plan. LivePlans has several video tutorials, breaking down each section of a business plan and why it is important to contain them in a presentable format. Using this service as well as advice from Cal Poly business faculty, there was enough topics and subcategories accumulated to outline a cohesive formal plan. After the outlining phase of the project, information was collected on each topic from various credible online sources. Some of these sources include industry member websites, direct email conversation, informal interviews, and various public documents. This information was organized in the structured outline set by the LivePlans system and printed out, ready to be presented to various potential investors. The first topic covered in this business plan was the breakdown of the financial opportunity of this new business. This topic was then broken down into 3 subcategories: problem worth solving, target market and competition. The problem worth solving subcategory describes the shortage of precast concrete manufacturing on the Central Coast and the untapped market that needs to be filled in the foreseeable future. The target market category details specific market research referenced by Grand View Research which shows the overall precast concrete industry growing at an exponential rate. It also breaks down the various potential cliental that could be reached by a new precast concrete manufacturer. The competition section describes the only other concrete product manufacturer on the Central Coast, who have monopolized these products in an area of operation spanning from San Jose to Ventura. This organization has the freedom to charge any desired rates for their products due to the lack of competition and their operation cannot keep up with market demand. After this section was complete, the actual execution of this future business was detailed. During this phase of research, a marketing and sales plan was developed. These plans reference exactly how JW Concrete Products LLC plans to market themselves and get their products into the hands of new clients. Additionally, this section lays out the specific operation strategies of the organization such as location and facilities, technology needed and necessary equipment and tools that would need to be funded and acquired. The next section that was developed in the business plan was the milestones and metrics portion. This topic section describes all of JW Concrete Products business milestones for the first few years of operations. Also, this section breaks down the unit rates of the company's product line. These rates were developed by taking standard specifications from Cal Trans and estimating the materials and labor costs associated with each design. Equipment costs were also taken into consideration while estimating. Then a uniform overhead and profit was applied to each product, which then gave a final cost estimate for several products. Once this was complete, it was necessary to describe the overall structure of the organization. This topic sections details who is financial and physically involved in the organization and the history of how this business idea was formed. Finally, and probably the most important section of the entire business plan is the financial plan topic. This section lays out all the required capital needed to start this business and where that money would be allocated to. This was achieved by gathering information on all the equipment, tools, technology, permitting, licensing, facilities, and advertising necessary for getting this manufacturing organization off the ground. Once all this data was collected and organized, the business plan and investors pitch were designed to be presented in a professional manner. Color schemes, company logos and other aesthetic features were chosen during this process. The result was a full formal business plan ready to be presented to potential future investors and venture partners.

## **Deliverables**

The deliverables of this project include:

- A full 17-page formal business plan detailing the financial opportunity available, market information, sales strategies, cost analysis, material and equipment breakdown, and funds needed for initial manufacturing operations. The information in this business plan gives an in-depth analysis of the precast concrete market and why a new precast concrete manufacturer would be a valuable investment. Additionally, this plan acts as a guide for stepping into the precast manufacturing industry and what is required to get a business up and running.
- A short 2-page investors presentation pitch. This pitch is a snapshot and summary of what J.W. Concrete Products LLC is and why it is a financially viable investment. This pitch is meant to be presented as a quick power-point, showcasing the highlights of the overall business plan.

## **Lessons Learned**

The lessons learned through this project were invaluable and have changed my perspective on not only the precast concrete market but also the hardships of starting your own business. Precast concrete manufacturing is a complicated business venture that requires a lot of start-up capital, a vast network of potential clients, expertise in the field and acquisition of permitting from public agencies. Additionally, starting a business in California at this time is extremely risky and would require more than just a few managers to get the business off the ground. After countless hours of research, attempting to start a precast concrete business with minimal experience and knowledge would be an overwhelming endeavor. However, by the end of this project, with the right team and partners surrounding this opportunity, it is possible that a new precast concrete manufacturing company based out of the Central Coast of California can be financially successful and thrive in the current market.

## **Conclusion**

In summary, there is undoubtedly an absence of competition within the California precast concrete market. As more public and private entities begin to adopt precast concrete products, there will be a supply shortage of these manufactured goods. Therefore, now more than ever is a remarkable opportunity for a new manufacturer to challenge the market and provide contractors and public works agencies with high quality products that will stand the test of time. Although a business plan is only a small step in the business start-up process, this plan can be utilized as a guide for a potentially fruitful financial venture.

## **Future Research**

When it comes to precast concrete, contractors and other various industry members agree that although these manufactured products typically have higher up-front costs than traditional cast in place concrete, pre-engineered concrete elements are much higher quality and easier to install. In fact, the implementation of precast concrete can save a project insurmountably on time and installation costs. Therefore, it would be noteworthy for future research to determine why some projects are embracing precast concrete and why some are reluctant to change with the times. In California, there are still many public agencies that refuse to adopt the pre-engineered concrete model and evolve with the construction industry. This research could discover invaluable information in understanding the precast concrete market.

## Connection to Curriculum

Throughout the Construction Management curriculum, the developing technology of precast concrete products is explored in several courses. For example, CM 113, 114, 313 and 314 are just a few Cal Poly Construction Management courses that dive into the specifics of precast concrete product design and project implementation. Furthermore, the Cal Poly curriculum puts an emphasis on educating students on the intricacies of owning and operating a business. These courses are taught from multiple departments. The Construction Management department focuses on the contractor's perspective with classes such as CM 232, 334, 335 and 443. Additionally, the curriculum integrates courses from the College of Business to teach Construction Management students about financial record keeping, market analysis and business law. All these courses plus many more not mentioned give students the knowledge to pursue multiple avenues of business within the construction industry sphere.

## Project Visuals and Appendix

The screenshot displays the LivePlan software interface for a project titled "Company J.W. Concrete Products LLC." The interface is divided into a sidebar on the left and a main content area on the right. The sidebar contains navigation options: Pitch, Plan (highlighted), Forecast, Benchmarks, Schedule, Dashboard, Options, and an "Invite Users" button. The main content area shows a "View & Edit" tab selected, with sub-tabs for Outline, Download & Print, and Comments. The "Executive Summary" section is expanded, showing a table of contents with items: Overview, Opportunity, Execution, Company, Financial Plan, and References and Resources. The "Overview" section is further expanded, showing a "Problem" statement and a "Solution" statement. The "Problem" statement reads: "In the Central Coast region of California, there is a very limited number of precast concrete fabricators and manufacturers. This creates very little competition within this sector of the industry. Therefore, contractors, developers and public entities are purchasing products from an imbalanced market." The "Solution" statement reads: "J.W. Concrete Products LLC will manufacture and deliver custom precast concrete products for construction projects ranging from small to large-scale infrastructure projects. Specifically, focusing on".

Figure 1: LivePlan Template

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# J.W. Concrete Products LLC.

## Business plan

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*Figure 2: Cover Page*

# Opportunity

## Problem & Solution

### **Problem Worth Solving**

In the Central Coast region of California, there is a very limited number of precast concrete fabricators and manufacturers. This creates very little competition within this sector of the industry. Therefore, contractors, developers and public entities are purchasing products from an imbalanced market. These products are being manufactured by 1 or 2 different companies which limits product availability, increases prices, and constricts quality development.

### **Our solution**

J.W. Concrete Products LLC will manufacture and deliver custom precast concrete products for construction projects ranging from small to large-scale infrastructure projects. Specifically, focusing on the fabrication of manholes, catch basins/curb inlets, highway barriers and parking stall barriers. Our products are made to meet specific design specifications for all individual projects and are delivered on-site for installation. These engineered elements are produced by casting wet concrete in reusable steel molds. Once the concrete has cured and is ready for implementation, the structure is broken away from the mold, and loaded onto a flatbed delivery truck with a boom crane attachment for easy on-site installation.

## Target Market

### **Market Size & Segments**

According to the California Department of Consumer Affairs: Contractors License Board, there are roughly 1,025 Class A Contractors in the 805 region of California. Local Industry Members agree that the average Engineering Contractor spends around \$8,000 on precast concrete products a month or \$96,000 a year. We will additionally be supplying products to local public works agencies and Caltrans, which makes up around 3% of our target market.

### **Market Growth**

According to Verified Market Research (2021), "the U.S Precast Concrete Market was valued at USD 15.50 Billion in 2018 and is projected to reach **USD 25.24 Billion by 2026**, growing at a CAGR of **6.3% from 2019 to 2026**."

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Figure 3: Opportunity Section Format

# J.W. Concrete Products LLC.



J.W. Concrete Products will manufacture and delivery custom, high quality precast concrete products.

## Our Opportunity

### Problem worth solving

Due to imperfect market conditions on the Central Coast region of California, contractors, public agencies, and developers do not have access to a reliable variety of precast concrete products. This prevents projects from using more efficient methods



### Target market

- Contractors 98% (\$98.4M)
- Public Works 2% (\$1.3M)

Market size: \$99.7M

### Our solution

Introduce a new concrete products manufacturer to the area and provide these organizations with different options regarding product availability, pricing and quality. This will create more competition in the market and improve community development.

Competitors	How our solution is better
Midstate Concrete	Lower Prices and More Availability
CalPortland	Higher Quality and Wider Product Range

### Funding needed

\$400K

The funding acquired will be used to purchase; tools, equipment, labor, software, permitting and associated memberships for quality control.

## Sales and Marketing

### Sales channels

1. Website Orders
2. Custom Quotes
3. Catalogs

### Marketing activities

1. Google Business Ranking
2. Social Media
3. Branding
4. Email Advertising
5. Physical Advertising

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## Milestones

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**Initial Marketing Strategy**

*Jun 30, 2022*



**First Product Order**

*Jul 20, 2022*



**Hiring of First Employee**

*Aug 1, 2022*



**Obtain Recurring Cliental**

*Jan 20, 2023*



**Hire Additional Laborers**

*Feb 5, 2023*

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## Team and Key Roles

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**John Will**

*Owner/President*

Construction Management graduate, 9 years prior construction experience working as a Assistant PM and Estimator for J.F. Will Company



**Drew Will**

*Chief Operating Officer*

Cal Poly Construction Management graduate, 5 years experience as a Project Engineer for Golden State Bridge Inc.



**Pete Kopcrak**

*Shareholder/Advisor*

Cal Poly Construction Management graduate, 20+ years experience with Granite Construction as a Estimator and Project Manager

*Figure 5: Investors Pitch Page 2*