Thad Maugle Dr. Horman **Civista Medical Center Construction Management**

Tech. Assignment #1: Construction Project Management

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Local Conditions

The Town of La Plata is a relatively small town of about 8500 people located in Southern Maryland about 30 miles southeast of Washington DC, 60 miles south of Baltimore, and 45 miles southwest of Annapolis. The existing site is approximately 10 Acres and is zoned as Institutional I-2 to accommodate the original hospital constructed in the late 1960s and the additions added in the 1970s and 1980s. The main objective on this project was to combine the existing architectural and structural components with the newly planned components. Given the constraints of a 14'-0" as the typical floor-to-floor height, the structure's depth, and the existing concrete building to be connected became the critical factors in determining that this facility was to be designed as a concrete structure.

The site logistics plan would be a challenge due to the task of keeping adequate on-site Civista employee and customer parking available. Parking, factored with the amount of site demolition and construction, requires careful planning and sequencing to avoid setbacks and delays. Local off site parking lots alleviated some of the stress by opening their lots to Civista. Site utilities that required relocation include sanitary sewer, storm sewer, water main, and gas main.

Parking for the construction management staff as well as other members of the project team was not a major concern. By working out of a nearby, single-story house, most of their parking could be accommodated on the house's property. As for trade contractors, parking was a much greater challenge. Due to the limited on site area, typically only foreman were allowed vehicles on site. Off site parking lots were coordinated through the town of La Plata so laborers could park nearby. Bused would

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the transport them from their cars to the site every morning and back to their cars every evening. The greatest concern, however, was locating additional patient and customer parking. Much of the existing parking is phased for demolition. Luckily, the hospital is comparatively small and parking is available on adjacent property.

The Geotechnical Engineering Report, prepared by Schnabel Engineering, concludes excessive settlement due to clay and clay sands. This type of soil has low bearing capacities. To properly accommodate these conditions, the foundation must be properly designed. In this case, the engineer recommends mat or deep foundation systems consisting of augured cast-in-place piles along with imported fill with desired properties.



Elevated Photo of Civista Medical Center and Surrounding Site Layout

Vicinity Maps



Project Vicinity Map – La Plata, MD & Its Relation to Washington DC



Project Vicinity Map – La Plata, MD

<u>Client Information</u>

The owner of this project is Civista Health, Inc. Civista Health is a regional, notfor-profit, integrated health system serving Charles County and the surrounding areas of southern Maryland. Their primary project goal of the addition and renovation is to make Civista Medical Center financially viable in the near future by allowing the hospital to better compete in the current healthcare/health services market. Improvements to specific facility deficiencies will create a patient oriented environment.

The cost of the project was set between the Owner, Civista Health, and the Construction Manager, Gilbane, as a Guaranteed Maximum Price of approximately \$43 million. The existing offices of Civista Health, Inc are located in the existing medical center, making for easy communication between parties. Issues concerning material samples, color samples, and mock-ups resulted in more timely decisions. However, as the budget tightened and completion neared, extensive negotiations for changes leave both sides frustrated. The schedule was vital to the owner's interest due to the well-being of Civista's patients. Proper coordination of the site work and construction made for easy transition of phases and smooth completion critical tasks. The completion and switchover from existing helipad to the new is an example. Civista Health, Inc has made clear the importance of safety and has worked closely with Gilbane to properly promote it. Appropriate actions are taught and monitored to assure coherence to the Project Safety Plan. Finally, quality control is a significant aspect during medical facility construction, especially when dealing with infection control. It is of the utmost importance to the owner that a safe, clean environment be turned over so that proper care can be offered to

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the hospital's patients. Infection control risk assessments require the Owner and CM to formulate and execute a strategic plan intended to identify and alleviate potential risks associated with the air quality environment during the construction phase of a project. It's to be carried through from the initial design stages to the completion and turnover of the project.

Project Delivery System

The Construction of the Civista Medical Center is delivered as a Construction Management at-Risk with a Guaranteed Maximum Price (GMP) contract with the owner. A CM at-Risk delivery method allows the CM to act as general contractor during construction, assuming the risk of subcontracting the work, and guaranteeing completion of the project. However, the most appealing benefit to a CM at-Risk method is its ability to allow the owner to interview and select a fee-based firm to manage construction before the design is complete. The CM is able to work along side the architects and design engineers to develop and estimate the design in progress. Specific to Civista, this delivery method integrates Gilbane into the design team (including the owner) and allows them to provide value-added expertise where the contractor usually has significant input in the design process.

A guaranteed maximum price (GMP) was provided to the owner by Gilbane upon the completion of the construction documents. The GMP includes Gilbane's fee plus the lump sum totals of the subcontractors. The contract between the owner and CM was approved by the Owner at approximately \$43 million and is scheduled for 32 months.

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The Lump Sum contracts that Gilbane holds with the subcontractors (since a CM at-Risk delivery method puts Gilbane as the primary contract holder) includes contract documents, scope of work, bid break downs, unit rates, construction milestones, termination conditions, change order process, bonds and insurance, paid when paid, etc. Subcontractors were appropriately chosen through competitive bids.



Civista Medical Center Organizational Chart

Staffing Plan

Since Gilbane was an active member of the project team during the design phase, the Preconstruction Department provided several services to the owner. These services included, but were not limited to estimating, constructability, purchasing, and budget management. The Preconstruction Team was composed of the Principle in Charge, Estimating, Purchasing, and the Project Executive. Once construction had commenced, the Project Executive (PX) headed the Gilbane operations team. The PX is the most direct connection between the on-site staff and the corporate office. From there, the Project Manager (PM) and General Superintendent head their respective teams. The PM is responsible for project cost reporting, owner correspondence, and schedule updating. The assistant project manager is second in command and aids the PM with their duties, as well as managing the Project and Office Engineers. The Superintendent coordinates daily tasks and material deliveries. They are also in constant interaction with the trade contractors. A MEP Superintendent and Area Superintendent are there to alleviate some of the duties of the General Superintendent by directing their focuses strictly to MEP installation and materials.



Civista Medical Center Organizational Chart