



Existing Conditions and Tech Assignment #1

Executive Summary

This is a 14 story cast in place Hilton Hotel being built across from the street from the new Aquarium in Atlanta, Georgia. This is in downtown Atlanta, Georgia on the corner of Marietta St. NW and Thurmond St. NW and therefore is a very congested site. This building will include 242 hotel rooms as well as retail on the lower levels and a sky bar on the 14th floor overlooking the city. The building will include 2 restaurants, a coffee shop, retail space, conference rooms and both an exterior and interior swimming pool. The project will consist of demolition of an existing 4-story parking garage structure. After demolition the Hilton Hotel as well as a 12 story 670 space parking garage will be built on the site.

This hotel and parking garage are in a perfect location downtown across from the Aquarium and near the soon to be open World of Coke. These two tourist attractions should bring a large number of visitors to the hotel and parking garage. The primary members of the project team include Legacy Pavilion, LLC www.legacyproperty.com (Owner), Stevens & Wilkinson Stang & Newdow, Inc. www.stevenswilkinson.com (Architect), and Holder Construction Company www.holderconstruction.com (General Contractor).

The construction of this Hilton Hotel is due to the expiration of a 30 year restriction on any Hilton Hotels being built in the Atlanta area. With the expiration of this restriction Legacy Property Group is now able to take advantage of this prime location to build a Hilton Hotel and parking garage to be used by visitors to the city and the areas attractions.

Project Schedule Summary

The sitework will be done at 3 different elevations A (basement level 1000.5), B (level 1010.5), C (level 1020.5). This will then be followed by the excavation and excavation support system. After this follows the caissons/foundations and the rest of the building goes up as planned. The retail space will be fit in by the client who takes over the space. It is important to notice that the parking garage and the hotel building will be constructed at the same time with the garage finishing about 5 months before the hotel.

| ID | Task Name | Duration | Start | September 1 | | January 11 | | May 21 | | October 1 | | February 11 | | June 21 | | November 1 | | March | |
|----|-------------------------------------|----------|--------------|-------------|-------|------------|-----|--------|-----|-----------|-------|-------------|------|---------|------|------------|-------|-------|--|
| | | | | 9/25 | 11/27 | 1/29 | 4/2 | 6/4 | 8/6 | 10/8 | 12/10 | 2/11 | 4/15 | 6/17 | 8/19 | 10/21 | 12/23 | 2/24 | |
| 1 | Permitting | 185 days | Fri 12/30/05 | | | | | | | | | | | | | | | | |
| 2 | Design/Preconstruction | 142 days | Thu 2/2/06 | | | | | | | | | | | | | | | | |
| 3 | Notice to Proceed | 0 days | Mon 6/12/06 | | | | | | | | | | | | | | | | |
| 4 | Demolition of Existing Parking Deck | 30 days | Tue 6/13/06 | | | | | | | | | | | | | | | | |
| 5 | Parking Deck | 270 days | Mon 7/24/06 | | | | | | | | | | | | | | | | |
| 6 | Sitework Areas A, B, C | 41 days | Tue 6/13/06 | | | | | | | | | | | | | | | | |
| 7 | Foundations | 46 days | Tue 7/25/06 | | | | | | | | | | | | | | | | |
| 8 | Elevated Slabs | 169 days | Wed 9/13/06 | | | | | | | | | | | | | | | | |
| 9 | Exterior Skin | 174 days | Mon 1/1/07 | | | | | | | | | | | | | | | | |
| 10 | Close In | 0 days | Thu 8/30/07 | | | | | | | | | | | | | | | | |
| 11 | Masonry | 80 days | Wed 1/24/07 | | | | | | | | | | | | | | | | |
| 12 | Guest Room Partitions | 125 days | Fri 2/23/07 | | | | | | | | | | | | | | | | |
| 13 | Elevators | 159 days | Mon 3/26/07 | | | | | | | | | | | | | | | | |
| 14 | Guest Room Finishes | 140 days | Fri 4/27/07 | | | | | | | | | | | | | | | | |
| 15 | Structural Misc. Steel | 35 days | Tue 5/1/07 | | | | | | | | | | | | | | | | |
| 16 | BOH Laundry | 88 days | Fri 5/4/07 | | | | | | | | | | | | | | | | |
| 17 | Kitchen | 104 days | Tue 5/15/07 | | | | | | | | | | | | | | | | |
| 18 | Fitness/ Administration Areas | 98 days | Thu 5/24/07 | | | | | | | | | | | | | | | | |
| 19 | Roofing | 65 days | Tue 5/8/07 | | | | | | | | | | | | | | | | |
| 20 | Meeting Rooms Partitions | 56 days | Mon 6/4/07 | | | | | | | | | | | | | | | | |
| 21 | Restaurant Partitions | 56 days | Wed 6/13/07 | | | | | | | | | | | | | | | | |
| 22 | Lobby Partitions | 56 days | Fri 6/22/07 | | | | | | | | | | | | | | | | |
| 23 | Meeting Room Finishes | 49 days | Tue 8/21/07 | | | | | | | | | | | | | | | | |
| 24 | Restaurant Finishes | 49 days | Thu 8/30/07 | | | | | | | | | | | | | | | | |
| 25 | Lobby Finishes | 56 days | Mon 9/10/07 | | | | | | | | | | | | | | | | |
| 26 | Retail Space | 101 days | Mon 1/8/07 | | | | | | | | | | | | | | | | |
| 27 | FFE | 0 days | Fri 8/17/07 | | | | | | | | | | | | | | | | |
| 28 | Owner Equipment / FFE | 96 days | Fri 8/17/07 | | | | | | | | | | | | | | | | |
| 29 | Hardscape Landscape | 55 days | Wed 8/22/07 | | | | | | | | | | | | | | | | |
| 30 | Completion | 0 days | Fri 12/28/07 | | | | | | | | | | | | | | | | |

| | | | | | | |
|--|----------|--|-----------------|--|--------------------|--|
| Project: Project Schedule Summary Date: Thu 10/5/06 | Task | | Milestone | | External Tasks | |
| | Split | | Summary | | External Milestone | |
| | Progress | | Project Summary | | Deadline | |



Building Systems Summary

| YES | NO | WORK SCOPE |
|-----|----|------------------------|
| X | | Demolition Required? |
| | X | Structural Steel Frame |
| X | | Cast In Place Concrete |
| | X | Precast Concrete |
| X | | Mechanical System |
| X | | Electrical System |
| | X | Masonry |
| | X | Curtain Wall |
| X | | Support of Excavation |

Demolition

The site had featured a 4 story parking structure that was the original site of “Nike Town” during the Olympics in Atlanta. The entire structure including all electrical, concrete, reinforcing must be removed. This structure must be removed before construction of the new project can start.

Cast in Place

Both the new hotel and parking garage are cast in place concrete. The hotel is short-span cast in place while the parking garage is long-span cast in place. Post tensioning will be used in both structures. Many concrete weights will be used including 3000psi, 3500psi, 4000psi, and 5000psi.

Mechanical System

The mechanical room for this building is located on the 3rd floor. The fact that this building is a hotel means the system is mainly just the common areas. Each guest room has its own heating/cooling unit for the guest of that room to control. There are three rooftop air conditioning units ranging from 2213 CFM to 2510 CFM. This building also features two 790



GPM/cell cooling towers on the roof as well as one 20.565/19.125 CFM rooftop energy recovery unit.

Electrical System

The electricity runs through two switchboards (on 4000A, 277/480 Volt, 3 phase, 4W and on 2500A, 277/480 Volt, 3 phase, 4W) both of which are braced for 65,000 amps and rated 65,000 AIC. The system includes 36 277/480V panelboards and 46 120/208 panelboards. The system is backed up by a 600KW (750KVA) emergency generator.

Support for Excavation

Standard sheeting and shoring is used on this sight to support the dirt for excavation.

Project Cost Evaluation

Parking Garage Not Included (Total Area = 225,500 SF)

Construction Cost

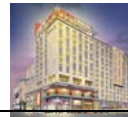
- \$36,000,000
- \$159.65 / SF

Total Project Cost

- \$38,000,000
- \$168.51 / SF

Major Building Systems

- Mechanical
 - \$2,801,000
 - \$12.42 / SF



- Electrical
 - \$3,215,000
 - \$14.26 / SF
- Structural
 - \$6,675,000
 - \$29.60 / SF

- Plumbing
 - \$2,700,000
 - \$11.97 / SF

D4 Cost Parametric Estimate

D4COST V8 - [123-Aquarium Hilton Garden Inn]

File Options Lookups Tools Window Help

Divisions | Information | Sources | Comments | User Defined

Target Date and Location: Oct 2007 GA - Atlanta Building Size: 162,000

Currently Selected: **Bidding Requirements**

| Div.# | Division/Subdivision | Base Cost | % | Sq. Cost | Projected |
|----------------------------|-----------------------|-------------------|---------------|---------------|-------------------|
| 00 | Bidding Requirem... | 1,275,813 | 9.25 | 10.27 | 1,663,278 |
| 01 | General Requirem... | 0 | 0.00 | 0.00 | 0 |
| 03 | Concrete | 3,458,345 | 25.06 | 27.83 | 4,508,647 |
| 04 | Masonry | 560,355 | 4.06 | 4.51 | 730,535 |
| 05 | Metals | 191,500 | 1.39 | 1.54 | 249,659 |
| 06 | Wood & Plastics | 763,857 | 5.54 | 6.15 | 995,841 |
| 07 | Thermal & Moistur... | 161,062 | 1.17 | 1.30 | 209,977 |
| 08 | Doors & Windows | 927,745 | 6.72 | 7.47 | 1,209,502 |
| 09 | Finishes | 1,628,810 | 11.81 | 13.11 | 2,123,481 |
| 10 | Specialties | 26,488 | 0.19 | 0.21 | 34,532 |
| 11 | Equipment | 8,500 | 0.06 | 0.07 | 11,081 |
| 12 | Furnishings | 8,080 | 0.06 | 0.07 | 10,534 |
| 13 | Special Constructi... | 77,001 | 0.56 | 0.62 | 100,386 |
| 14 | Conveying Systems | 447,275 | 3.24 | 3.60 | 583,113 |
| 15 | Mechanical | 3,025,069 | 21.92 | 24.34 | 3,943,784 |
| 16 | Electrical | 1,237,691 | 8.97 | 9.96 | 1,613,579 |
| Total Building Cost | | 13,797,591 | 100.00 | 111.04 | 17,987,928 |
| Total Project Cost | | 14,228,003 | | | 18,549,057 |



SF Estimate

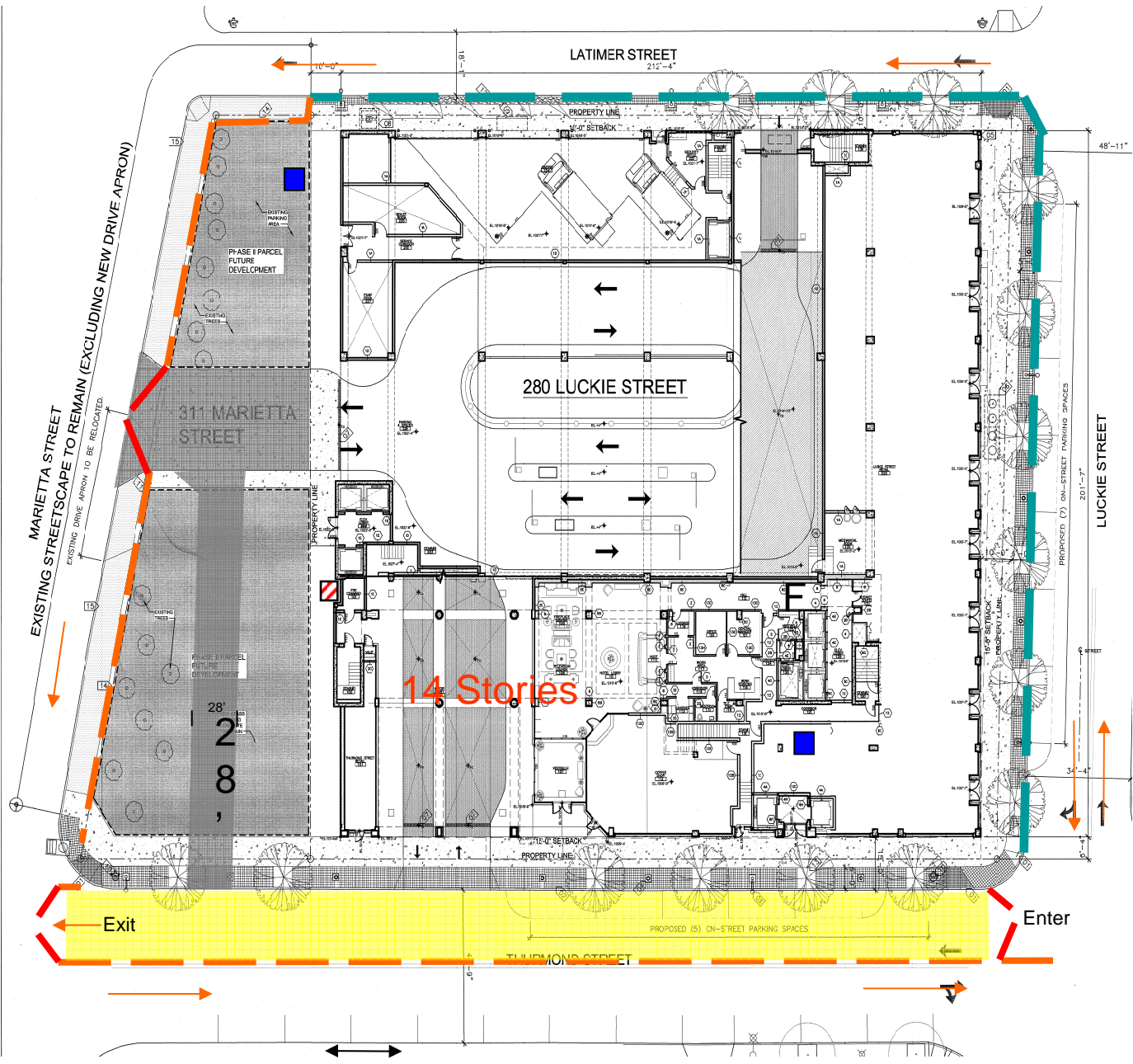
- 2005 R.S. Means
- Used M.360 Hotel, 8-24 Story
 - \$104.45 / SF
 - Location Modifier: Atlanta, Georgia 0.90

R.S. Means S.F. Estimate: \$94/ SF

My estimate is higher than the other estimates found using these other methods. There are many reasons this could be the case. The site is a very small and congested site which makes it harder to do work and therefore would increase the cost. Also I am comparing this to other hotels only and my building will be a hotel/mixed use facility with the retail, restaurants, and skybar helping to drive the price up. Also Hilton hotels tend to be very nice higher end hotels and will there for have higher end finishes in the building.

Site Plan

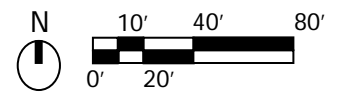
It is important to note that the site is very small and congested causing the jobsite trailers to be in a building across the road in an adjacent building.



14 Stories

Legend:

-  Access Road
-  Cranes
-  Buck hoist
-  Lane Closer
-  Netting Fence
-  Slate Fence
-  Gate





Local Conditions

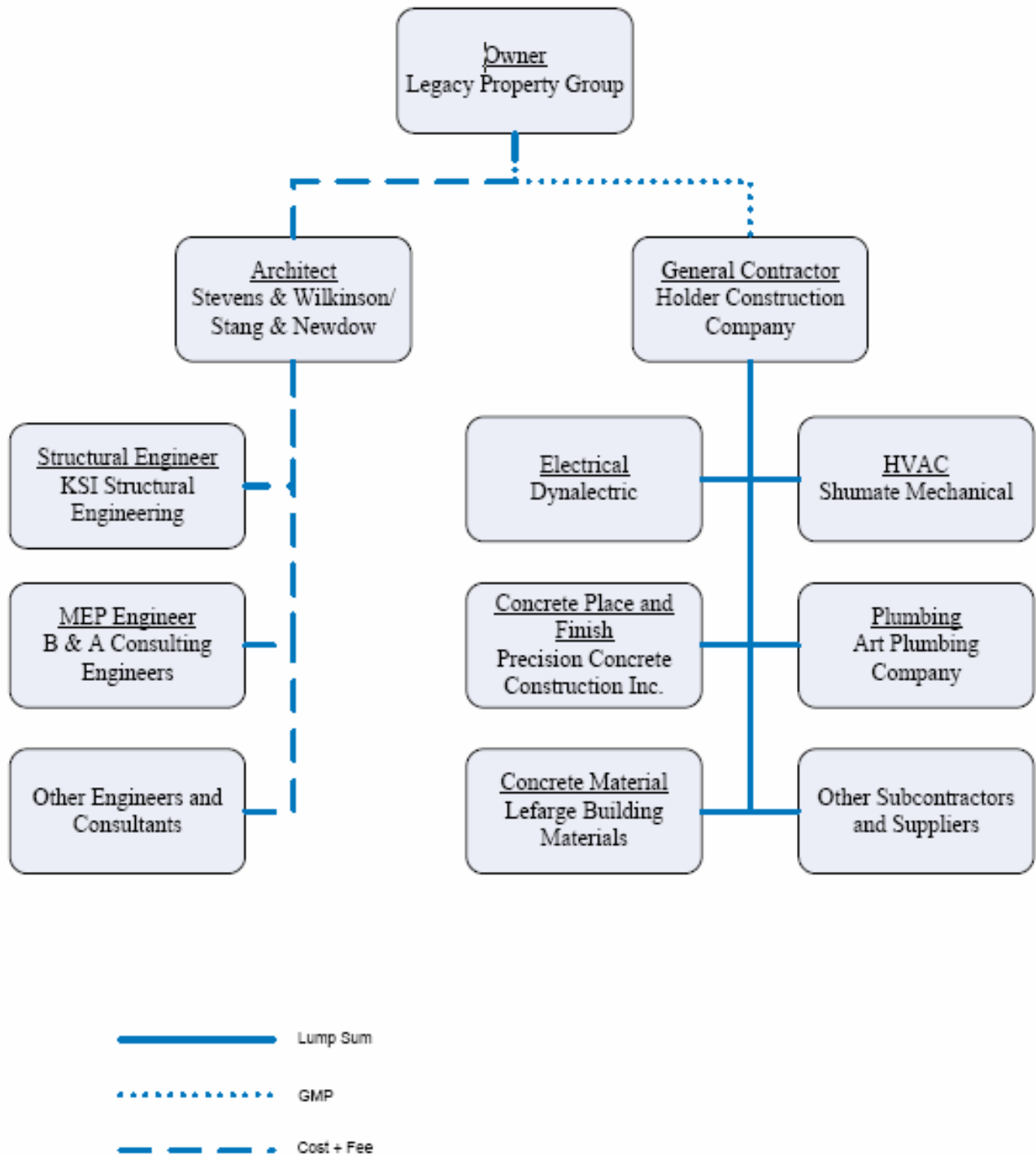
There are not really any preferred methods of construction in the Atlanta area. Cast in Place structures have been used before in the area and should not cause any problems. There is no designated construction parking near the site. All workers are to find their own parking in downtown Atlanta. The cost for parking has been incorporated in the subcontract total for all subcontractors. The dirt on site is mostly a medium dense purple gray brown micaceous silty fine sand. Partially weathered rock was encountered in some places at a depth of 6 feet which could make excavation hard in these places. The groundwater level is between 21 and 26 feet deep.

Client Information

The owner of this project is Legacy Property Group www.legacyproperty.com. They are a real estate developer based out of the Atlanta area. Legacy Property group is composed of a core group of executives with over 75 years of experience. The group works independently, with institutions, and with private investors to develop an array of projects in the Atlanta area including a \$200 million Legacy at Centennial Olympic Park mixed-use project, a 321 Embassy Suites Hotel, and the Centennial Park West condominium project. The Centennial Park West project was the first condominium to be built in downtown Atlanta. Legacy refers to this project as the Park Pavilion project, which includes the hotel, parking garage, retail space, restaurant, and sky bar. The project is being built because of the opening of the new Georgia Aquarium across the street as well as the soon to be opened World of Coke attraction coming in 2007. These two attractions will bring many tourists to the area which will help this project flourish. Hilton was able to be chosen as the hotel operator due to the fact a 30 year restriction between the city of Atlanta and another Hilton hotel in the Atlanta area. Legacy saw this as a great time to capitalize on this prime property and moved forward with this project. It is important for this project to be completed in a timely manner to not miss out on tourists visiting both the aquarium and the World of Coke.

Project Delivery System

Holder Construction Company acts as a CM at risk on this job with a GMP contract. Holder was selected for this project with a negotiated GMP. Holder Construction then holds lump sum contracts with its subcontractors and suppliers and deals with the Architect and owner on RFI's and submittals. The design side is just the standard cost plus fee contracts that most owners have with their designers and engineers. These contracts are appropriate and pretty standard with Holder Construction Company.





Staffing Plan

Everyone on the following organizational chart are onsite to ensure the success of the project with the exception of the VP who works out of the corporate office. The VP in this case acts as the project executive while the Project Manager and Superintendent are onsite dealing with the day to day activities to ultimately ensure the projects success. Under the superintendent is a asst superintendent as well as a carpenter foreman and some carpenters. The superintendent is responsible for the labor force in the field. The project manager is responsible for managing trades to ensure timely delivery and to work on the billing for the project. Under him are the senior engineer and engineers to help with the day to day action of managing trades. He also has a field office processor to help with billing and also a administrative assistant to assist the F.O.P with her daily activities.

