

John Barry & Associates, management consultants and engineers, are pleased to present our Facility 101 Program.

JBA has over 61 plus years of engineering service excellence. We have had the wonderful opportunity of planning over 10 million square feet of industrial office and retail space.

Some of our wonderful clients include:

- ❖ Wellington Foods
- ❖ Thales
- ❖ Quiksilver
- ❖ Porsche
- ❖ Quality Aluminum Forge
- ❖ Titleist
- ❖ Symbol Technology
- ❖ Disneyland
- ❖ The Black Tux
- ❖ Taco Bell
- ❖ Hughes Aircraft
- ❖ Coyle Reproductions

As you can see, JBA's expertise crosses over many industries and involves serving small, medium, and large organizations.

Our focus today will be on Facility Space Requirement Definition.

As a leader in the industry you often are asked to support a move from one facility to the next.

JBA has developed a program with sample forms to assist you in this discipline.

Our hope today will be to supply you with solid knowledge in facility and move planning and to discuss some of your facility requirements.

We do understand that every industry differs and that each client has his or her own specific facility requirements. Please use the attached system as a guideline in customizing your own program.

JBA, is of course, very interested in assisting you in your future facility and move planning requirements.

FACILITY 101

To support your focus on continuous improvement we will use a case study in Facility 101.

One of JBA's most exciting projects was completed for Titleist. This division of Titleist in Carlsbad, California manufactures beautiful golf clubs. When Titleist purchased Cobra Golf they decided to consolidate the manufacturing of both the Titleist and Cobra golf club facilities within one 200,000 square foot manufacturing operation. The initial plan called for a full consolidation within one building. Through some top level real estate analysis Acushnet, the parent company of Titleist, decided to hold on to the two Cobra buildings and utilize them for sales, marketing, research and development, and shipping. They decided to have a separate manufacturing operation which they ended up leasing.

This facility planning project consolidated nine buildings into three buildings, totaling over 350,000 square feet.

The process that we followed on this important project forms a good template for you to follow in your facility planning efforts.

Step 1 – Space Requirement Definition:

JBA's team visited all nine Titleist and Cobra buildings. We measured all departments and developed a matrix which defined the current facility sizes, the current space requirements, the current space utilization, and summarized the divisional and total Titleist/Cobra facility needs. This first step forms a foundation for the overall facility program.

It is important to communicate heavily with the client as you complete this assessment. For example, on a project for Symbol Technologies, the collective wish list of square footage added up to over 400,000 square feet where the true requirement ended up being 320,000 square feet.

On the Titleist project we defined each department's square footage requirements and then met with the top management team to adjust relative to their input.

Step 2 – Process Flow Assessment:

Many people, both inside Titleist and outside, were surprised that JBA, who had not worked within the golf club manufacturing industry prior, could have a major impact on the manufacturing process improvement at Titleist. JBA's approach is to document the current process in great detail and to define specific opportunities for improvement. Here we identified several ideas within Lean Manufacturing and Cellular Manufacturing Practices to improve the overall manufacturing process. In any process flow assessment you are defining the current practices, the best practices, and the realistic improvements that can be integrated within the new operation.

Step 3 – Cost Analysis:

At Titleist or on any project we are often asked to evaluate the cost benefit of capital equipment. In many cases customers are looking to add the appropriate level of automation within their operation. For example, many companies have evolved from bar coding systems to RFID systems in handling their inventory movement. Some of these automatic sortation systems can cost hundreds of thousands of dollars. In some cases they will drive a very attractive return and in other cases a more standard material handling system is more appropriate. The practical assessment within this area is a key element of facility planning.

Step 4 – Block Layout:

Once we had defined the required number of golf club assembly lines, receiving department requirements, machine shop requirements, manufacturing support departments, shipping department requirements, and all other space requirements we developed a block layout. Here each department's overall square footage is defined and the ideal configuration is detailed on a block layout. We often will show colored arrows that show the flow from receiving into manufacturing and the flow from completion through shipping on a layer within the block layout program. We then sat down with the Titleist top management team and massaged the block layout with their additional input.

Step 5 – Detailed Layout:

Once the block layout was approved JBA completed the detailed layout that included the racks, material handling tools, tables, tools, and overall systems. This layout also included the utility detail. This process involved multiple meetings with the Titleist department heads and multiple revisions to move toward the ideal layout.

Step 6 – Contractor/Sub Contractor Coordination:

In this job we acted as the owner's rep and helped coordinate the build out of this major golf club manufacturing operation. This included several million dollars of dust collection, electrical, and plumbing improvements. To give you an idea, at one time we had 27 electricians in the air installing the advanced electrical track system. The coordination of multiple sub contractors is a critical part of facility development and time management. As you can see on one of the attachments the use of project planning software is a critical part of facility planning, contractor coordination, and move planning.

Step 7 – Move Coordination:

The Titleist project involved the movement of over 1,000 pieces of equipment, millions of dollars of inventory, and over 600 Titleist team members. JBA's job was to coordinate this in a "seamless" fashion. This final aspect of facility planning is critical. We kept the manufacturing lines operating until Friday noon and had them up and going within the new facility by Monday noon. We did not lose one shipping day and the valued Titleist customers felt no change within the transition. This was Titleist leaders' goal and was accomplished through heavy communication, heavy planning, heavy coordination of contractors, and major attention to detail. As you are working on your facility programs make sure that you focus a heavy amount of attention on the move planning and start up phase of your projects.

At this time we hope that the attendees will have questions associated with past or current projects that will allow us all to learn from the experience of the group in the room today.

JBA has had the wonderful opportunity of not only completing millions of square feet of industrial and office facility planning but we have moderated groups of non-competing manufacturers where all parties come together to learn and share. Our hope today is to share with you some solid ideas and tools on Facility 101 and also enjoy the expertise of the attendees here today.

We will now walk through some of JBA's background material to share additional practical insight into facility planning.

FACILITY REQUIREMENT DEFINITION

To define the exact facility requirements for your new “home” we will follow the JBA *Facility Requirement Definition System*. This proven system includes:

- **Current Facility Documentation:** We will accurately define the current facility. We will detail the square footage of office, lab, manufacturing, assembly, warehouse, shipping, and all other departments. We will take special note on the ceiling heights and the cube utilization.

We will also interview all key lead people to define the current level of space utilization within the current facility.



One of the first facilities that JBA utilized a laser measuring device to document square footage was TDK. We mention this in that the accuracy of documenting this cassette manufacturing operation, or any operation that we are working on, must be extremely accurate. In the olden days we would use a tape measure to check the facility measurements and would then go back and double check each measurement. The laser device is extremely accurate and efficient. We also will mention here that you should be very careful in relying on old blue prints. In some cases they are inaccurate in measurement and in many cases companies have done minor and major leasehold improvements over the years that are not shown on the old blueprints. As they say in the old carpentry industry, “measure twice, cut once”.

- **Process Flow Definition:** One of the greatest opportunities in a new facility is to implement new programs, systems, and procedures. When JBA is working with a new client, we like to not only document the current procedures but to complete a process flow definition that brings to the surface advancements for client consideration. We have enclosed a process flow form that can aid you in this effort. Basically, this requires you to detail every move of each component throughout the process. As you document the current process you will also be identifying improvement for advancement in layout, workstation, material handling tools, and methods. It is extremely effective if you have a small team assist you in this effort. The goal within the new facility will be to improve the layout, workstation, and the actual methods that we follow.

THALES

Thales is a major provider of in-flight entertainment systems. We recently moved them from approximately 60,000 square feet at the corner of MacArthur and Redhill to a beautiful 85,000 square foot building in the Irvine Spectrum. During their move and all moves we like to look carefully at the procedures within the receiving, kit preparation, assembly, packaging, finished storage, and shipping departments. In many cases businesses grow “into the corners”. What we mean by this is that a new product is added and new workstations are dropped into available space. In many cases this evolves into a series of inefficiencies that can be corrected within a new facility.

We often describe a new facility as a “clean sheet” of paper. Here a company that is moving has a unique opportunity to start fresh and layout their process in the ideal fashion.

- **Needs Requirement Definition:** Your business may be growing, declining, or changing. During this process we will be defining the space and facility requirements relative to your future needs. For example, if the office staff is growing, there is a need for additional conference room facilities, you are integrating processes that are currently outsourced, or you are consolidating with another business, we will take these items into account in defining the requirements.

Omni-Berkley:

Omni-Berkley is a large injection molding plastic manufacturer as well as a third party packaging operation. Omni-Berkley was originally two organizations that became one. One of JBA’s initial jobs was to define the total square footage requirement for the consolidation of these two firms. This equated to all office and manufacturing needs. As you complete this section you should interview all major department heads to define their “wish list”. Here these team members will give you their insight into the square footage requirements and departmental needs to meet their current and future growth plan. As you would imagine in many cases, the department heads will exaggerate their needs. One of the jobs of a facility planner is to brainstorm with the individual department heads and then meet with the top management team to adjust the individual “wish list” to move toward a logical overall requirement. Some areas we suggest you keep your eye on include conference room requirements, restroom requirements, departmental meeting areas, employee locker areas, and other areas to meet the company’s growth plan.

- **Block Layout:** Whether we are going to move into a current facility or into a build-to-suit building, we like to start with a block layout that not only defines the square footage requirement by department but also involves the appropriate adjacencies. In this way we can often define not only the square footage requirements but also can define the ideal configuration of the building. Some manufacturing and distribution organizations will fit most appropriately within a square box and others will work best within a long “bowling alley” type facility.



JBA did a study to define the facility requirement for a multi-divisional consolidation for B/E Aerospace in Southern California. We completed the individual divisional square footage requirements and then brainstormed with the B/E Aerospace team on the initial block layout. As you can imagine a great deal of thought must go into the collective requirement and key areas such as shipping, receiving, divisional staging areas, adjacency issues, individual/collective divisional process flow, office positioning etc. During these types of efforts JBA will often have the divisional leaders around a table where we project several block layout versions on a screen. We then manipulate the CAD drawings with the input of the team. These sessions are phenomenally productive in that you extract the individual and collective expertise and best thinking.

- **Communication:** Communication is critical in the development of your space requirement definition. We highly recommend a heavy amount of communication with all team members early on and throughout the process. We find that the opportunity to start with a “fresh sheet of paper” can be maximized if all team members have a hand in the final design.



The Titleist project involved the consolidation of nine buildings into three facilities. It also included the relocation of over 600 team members and hundreds of pieces of small and large equipment. During this facility project we had weekly meetings with the Titleist top management team, weekly meetings with all the contractors, and periodic meetings with the corporate team from Acushnet (the parent company). These meetings drove the project forward. We highly recommend that you use a bar chart type scheduling software to plan your moves. Later in this program we will review a few samples. The key to the success of a solid facility plan/move is communication, follow-up, team work, discipline, and proactive management.

To maximize the value of today's program we would suggest that you return to your operation and take a brand new look at *Continuous Improvement*. Normal items may include:

- **Cube Utilization:** Often our clients will find growth potential within the utilization of the cube. You might add some additional high-pile storage, mezzanine systems, or conveyors to maximize your space utilization.



One project that we completed for Volcom, the fast growing surf wear company, included the redesign of their receiving department. They receive truck loads and containers of garments that need to be received, inspected, counted, and then moved to inventory. The challenge was to redesign this department to allow for speed in processing while maximizing the volume that could be handled. Here we looked at the total cubic square footage and applied the appropriate level of automation to support the receiving team and to move the product from the “back door,” through the process, and upstairs into the storage area. When you are looking at a building, make sure that you look at the cube and identify where logical mezzanine may be added, where automatic sortation devices can be installed at the ceiling level, and where other items that can maximize the cubic utilization can be added. When you are looking at a relatively long lease the cost benefit of mechanisms that can maximize the cube can be quite productive.

- **Adjacencies:** Often we expand into space available. Over a period of this can have us in a very inefficient position where key departments are separated and adjacencies are not followed.



The Corning Optical project was a combination of a lab layout and office space planning program. One aspect you need to consider when developing a good layout is adjacency issues. A key element we must look at during the development of a good layout is the critical adjacency criteria. At Corning, the lab managers wanted to not only be close to the optical labs but also requested windows between their office and the key lab assembly areas. In other departments of Corning there were key adjacency issues related to where the general manager was positioned relative to his key top five reports. We would suggest that you interview the team members to define the relative importance of each adjacency.

- **Material Handling Tools:** As you are looking at your overall process you might see a great deal of walking, double handling, and other inefficiencies. Sometimes a simple conveyor or storage system can add to both space and labor utilization.

may

May Company owns After Hours Formal Wear and David's Bridal. They move thousands of garments per day. As a result they are looking at utilizing RFID and automatic sortation in more of their garment processing operations. Imagine each garment having a sewn in RFID chip and each garment placed on an automatic sortation device. In this way they can support a hands off storage, pulling, assembly, and shipping preparation warehouse. These devices can save serious amounts of both space and labor. One of your jobs as a facility planner is to assess the cost benefit of various levels of automation.

- **Comparative Review:** Sometimes we have seen another company within the same category that may be more efficient in their facility utilization or might excel within a certain department (receiving, manufacturing, assembly, shipping, etc.). In these cases we can "borrow" from the best practices within the same or like industry.



One advantage that a good facility planner brings is past experience. If you happened to work for a plastic injection molding operation last year and identified how they brought raw material to the equipment in an efficient fashion you then can "borrow" this best practice during your next plastics manufacturing effort.

Our hope is that the ideas, tools, and programs outlined within this report will add to your effectiveness within your operation.

John Barry & Associates wishes to thank you for giving us the opportunity to meet with you and your wonderful group.

OFFICE SPACE PLANNING

John Barry & Associates has completed millions of square feet of Office Space Planning.

Some of the Office Space Planning projects have been completed for:

- ✓ Titleist..... Over 100,000 square feet office
- ✓ Corning Optical..... 20,000 square feet office
- ✓ Omni-Berkley Industries..... 25,000 square feet office
- ✓ Hughes Aircraft..... 150,000 square feet office
- ✓ Performance Engineering Products..... 10,000 square feet office
- ✓ TDK..... 30,000 square feet office
- ✓ Sutro & Co..... 35,000 square feet office
- ✓ B/E Aerospace..... 40,000 square feet office
- ✓ Thales..... 45,000 square feet office
- ✓ Los Angeles Welfare Department..... 80,000 square feet office

JBA's team of engineers and MBAs worked closely with small, medium, and large companies in assessing their specific office requirements and in developing office layouts that are both practical and effective. We take special note of adjacency issues and the "process flow" of each office operation.

As you will see in the balance of this material, JBA takes an engineering approach to office layout. Many clients have told us that the engineering angle greatly added to the efficiency of space as well as to the effectiveness of the overall office operation.

Our goal today will be to share with you the highlights of the JBA office layout approach. We hope that you will borrow some of the concepts in a fashion that will add value to you and your important office clients.

JBA is extremely knowledgeable on all office equipment and furniture vendors. We purposely avoid economic ties to any vendor, allowing us to sit in the client's chair. In this way we can identify the best office systems solution relative to each individual client's requirements.

We will be more than pleased to visit your clients, at no obligation, to review their initial requirements and thoughts and to support your efforts in supplying professional office space planning.

OFFICE FACILITY REQUIREMENT DEFINITION

To define the exact facility requirements for your new “home” we will follow the JBA *Facility Requirement Definition System*. This proven system includes:

- **Current Facility Documentation:** We will accurately define the current facility. We will detail the square footage of office, conference rooms, restrooms, labs, and other office area requirements. We will take special note on adjacency issues and other top management priorities.

We will also interview all the key lead people to define the current level of space utilization within the current facility.

Los Angeles Welfare Department

On one project completed for the Los Angeles Welfare Department, we were asked to consolidate three office facilities into one. It was key to have accurate measurement on not only each facility, but each department and each workstation. As we documented the exact square footage for each area we were able to identify efficiencies that would evolve through consolidation. We did find that one of the office blueprints was off by over six feet on one layout. We mention this relative to the importance of accurate facility documentation.

- **Process Flow Definition:** One of the greatest benefits of a new facility is the opportunity to implement new programs, systems, and procedures. With each new client, JBA likes to not only document the current procedures but to complete a process flow definition that brings to the surface advancements for client consideration. We have enclosed a process flow form that can aid you in this effort. Basically, this requires you to detail every move of each component throughout the process. As you document the current process you will also be identifying improvement for advancement in layout, adjacency issues, workstation design, and methods. It is extremely effective if you have a small team assist you in this effort. The goal within the new facility will be to improve the layout, workstation, and the actual methods that we follow.

Titleist

On the Titleist project we were required to consolidate nine buildings into three facilities. In the end, the logical mix placed administrative office and manufacturing in one building, research and development in the second building, and sales, marketing, and finished goods storage in the third.

The office component was key within the administrative area. The Vice President of Operations wanted to have his top five team members within close proximity. In this case we developed a set up where his office was in a corner and the key reports were fanned out in the adjacent offices. We also had a nice small conference room directly adjacent to the Vice President's office to facilitate his multiple meeting schedule. A balance of the offices were in a long narrow building configuration, creating a challenging design. In this case facilitate we developed modules for manufacturing, finance, personnel, and the other support departments.

We were also challenged by the fact that R & D and sales and marketing offices were in separate buildings. The solution to this problem was the development of small conference rooms off the lobbies of each facility that held regular joint meetings involving all department heads.

- **Needs Requirement Definition:** Your business may be growing, declining, or changing. During this process we will be defining the space and facility requirements relative to your future needs. For example, if the office staff is growing, there is a need for additional conference room facilities, you are integrating processes that are currently outsourced, or you are consolidating with another business, we will take these items into account in defining the requirements.

THALES

Thales is a high quality in-flight entertainment manufacturing company. They are owned by a French firm that has representatives regularly visiting the Irvine, California division. In their new office facility design we not only needed to plan for the regular administrative requirements but also for the visitors from Paris. It was important to have the appropriate combination of private offices and conference room facilities to support these needs, as well as to place these offices in the most appropriate position. Each office operation has its own requirements.

- **Block Layout:** Whether we are going to move into a current facility or into a build-to-suit building, we like to start with a block layout that not only defines the square footage requirement by department but also involves the appropriate adjacencies. In this way we can often define not only the square footage requirements but also can define the ideal configuration of the building. Some office organizations will fit most appropriately within a square box and others will work best within a long “bowling alley” type facility.

Omni-Berkley:

Some of your projects might be 100% office. Others might be an office and an industrial mix or an office/lab mix. At Omni-Berkley we needed to make sure we not only had enough office square footage, but also that each departments’ office space and configuration was placed in the most ideal position within the consolidated facility. We came up with several versions of the office layout and then manipulated the final layout with heavy client communication.

- **Communication:** Communication is critical in the development of your space requirement definition. We highly recommend a heavy amount of communication with all team members early on and throughout the process. We find that the opportunity to start with a “fresh sheet of paper” can be maximized if all team members have a hand in the final design.



When we completed the office layout out for Symbol Technologies we interviewed all the department heads and developed an individual and collective *Office Space Requirement Definition*. Below is an example of the type of chart that we used as part of the interview process.

AREA	CURRENT SQUARE FOOTAGE	REQUIRED SQUARE FOOTAGE	TYPE OF SPACE
Administrative			
Engineering			
Sales/Marketing			
Manufacturing			
Other			

To maximize the value of this program today we would suggest that you return to your operation and take a brand new look at *Continuous Improvement*. Normal items may include:

- **Cube Utilization**: Often our clients will find growth potential within the utilization of the cube. You might add mezzanine systems or new cubical to maximize your space utilization.



Years ago we did a *Space Requirement Definition* for this wonderful toy manufacturer. As a result of recent growth, Mattel's office space became very tight. We defined their short-term solution, supported through the installation of a relatively large mezzanine that allowed them to "double deck" their office operation. This not only added the required space, but several of their manufacturing and distribution office managers also enjoyed an additional advantage through the placement of their offices (with large windows) above some of their most critical departments.

- **Adjacencies**: Often we expand into space available. Over a period of time this can have us in a very inefficient position where key departments are separated and adjacencies are not followed.

HANCOCK JAFFE

When we developed the Hancock Jaffe layout it was important to the owner that customers could tour the laboratory while keeping the clean room environment separate. Here we developed a series of hallways that allowed the customers to view the key processes within this heart value manufacturing operation. This allowed the ongoing process to move forward in an efficient and protective environment while allowing the top management team and sales to showcase this sophisticated operation.

- **Comparative Review:** Sometimes we have seen another company within the same category that may be more efficient in their facility utilization or might excel within a certain department (administration, accounting, marketing, etc.). In these cases we can “borrow” from the best practices within the same or like industry.

DANIEL FREEMAN HOSPITALS

JBA has had the wonderful opportunity of working with multiple large hospitals coast-to-coast. One advantage of serving multiple players within the same industry is the identification of best practices within office operational layout. In this case we were able to enjoy the benefit of what was learned at Memorial Hospital in Alabama, Saint Joseph’s Hospital in Orange, as well as other hospitals, when we developed the new office layout for Daniel Freeman Hospital. Clients enjoy learning from other leading industry organizations.

PARTIAL LIST OF JBA CLIENTS:

✓ Acushnet: Titleist, FootJoy, Cobra Golf

- 200,000 square feet manufacturing
- 100,000 square feet office

✓ B/E Aerospace:

- 200,000 manufacturing/distribution
- 40,000 square feet office

✓ Bristol Fiber-Light Industries:

- 65,000 square feet manufacturing
- 25,000 square feet office

✓ Cambro Manufacturing:

- 100,000 square feet distribution
- 20,000 square feet office

✓ Corning:

- 100,000 square feet lab and support areas
- 20,000 square feet office

✓ Four Seasons Hotels:

- Multiple large laundry and dry cleaning facilities

✓ **Hurley International:**

- 80,000 square feet distribution
- 25,000 square feet office

✓ **Katzkin Leather Interiors:**

- 65,000 square feet manufacturing
- 15,000 square feet office

✓ **Omni-Berkley Industries:**

- 175,000 square feet manufacturing/distribution
- 25,000 square feet office

✓ **Performance Engineering Products:**

- 80,000 square feet manufacturing/distribution
- 10,000 square feet office

✓ **Potter-Roemer:**

- 80,000 square feet manufacturing
- 15,000 square feet office

✓ **Scott:**

- 400,000 square feet manufacturing
- 40,000 square feet office

✓ **Scripps Bank:**

- 7,000 square feet processing center
- 4,000 square feet office

✓ **Southwest Plastics Company:**

- 40,000 square feet manufacturing
- 10,000 square feet office

✓ **Survivair:**

- 10,000 square feet production line design

✓ **TDK:**

- 120,000 manufacturing/distribution
- 30,000 square feet office

✓ **Schawk:**

- 120,000 printing and manufacturing redesign

✓ **Money Mailer:**

- 190,000 square foot office and printing facility and move planning

✓ **Pacific World:**

- International manufacturing assessment
- US and Mexican facility planning

✓ **Thales:**

- Multiple layout and move coordination programs

✓ **Ceradyne:**

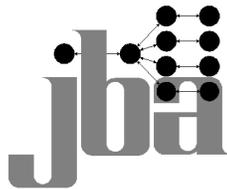
- Migration planning and move support

SAMPLE OF JBA PROJECTS

- | | |
|----------------------------|--|
| Titleist | <ul style="list-style-type: none">• 350,000 square feet multi facility• Layout for golf club assembly• 600 people and 200 pieces of equipment |
| Corning | <ul style="list-style-type: none">• 100,000 square foot lab/office layout• CAD drawings• Facility/move planning and implementation |
| B/E Aerospace | <ul style="list-style-type: none">• Plant evaluation• Consolidation assessment of multi-facility operation |
| O’Neill Sportswear | <ul style="list-style-type: none">• Space requirement analysis• Manufacturing operation analysis• Turnkey 65,000 square foot design/start-up• Continuous improvement project• Process/facility improvement support |
| Potter-Roemer | <ul style="list-style-type: none">• Initial square footage requirement assessment• Facility engineering project• Complete move planning & start-up support |
| Scott | <ul style="list-style-type: none">• Manufacturing production line design• Process flow improvement• 400,000 square foot facility requirement definition• CAD drawing development |
| Snug Top | <ul style="list-style-type: none">• Plant and work station design |
| Symbol Technologies | <ul style="list-style-type: none">• Materials department layout• Production department re-engineering• 300,000 square foot consolidation |

JBA REFERENCES

Tony Harnack Jr. Wellington Foods Corona, CA	(951) 547-7000
Tom Messmer Previously with Corning, Inc. Tustin, CA (Now with Industrial Realty Group)	(562) 803-4761
George Sakioka Roy K. Sakioka & Sons Santa Ana, CA	(714) 545-8611
Charlotte Hill Georg Fischer El Monte, CA	(626) 571-2770
Jim Callahan Previously with Money Mailer (Now with U.S Water Polo)	(714) 337-5123
Randy Wilson Norm Wilson & Sons Long Beach, CA	(562) 634-7933
Stephanie Becker Petro Diamond Irvine, CA	(949) 553-3883
Tony Alvarez Classic Party Rentals Culver City, CA	(310) 202-0011





John Barry & Associates has served leading manufacturing, distribution, lab, financial, service and other industries with solid industrial engineer, facility planning, and move coordination since 1954.

Here is a partial list of the industries and clients served:

Aeronautics:

- Smith Aeronautics
- Thales Avionics
- Hughes Aircraft

Medical Device:

- Hancock Laboratories
- Cooper Medical
- AMO

Chemical Manufacturing/Distribution:

- PPG
- Doe & Ingalls
- CF Braun

Food Service:

- Carl's Jr.
- JFC
- Denny's

Plastics:

- Fluidmaster
- Southwest Plastics
- Gentex

Apparel:

- Quiksilver
- May Company
- Hurley

Printing:

- Money Mailer
- Schawk
- Delta Printing Solutions

Golf:

- Titleist
- Cobra
- Cleveland Golf

Electronics:

- ITT Datanetics
- Symbol Technology
- Thales Avionics

Metal Manufacturer:

- Maxon Truck
- Thermador
- CCI

Distribution:

- Herbalife
- Lifetime Brands
- After Hours

Automotive:

- Hughes/GM
- Quinn CAT
- Isuzu Truck Testing

We would be pleased to provide you details on the multiple projects that we have performed for these and other leading operations.

BUILDING REQUIREMENTS SURVEY

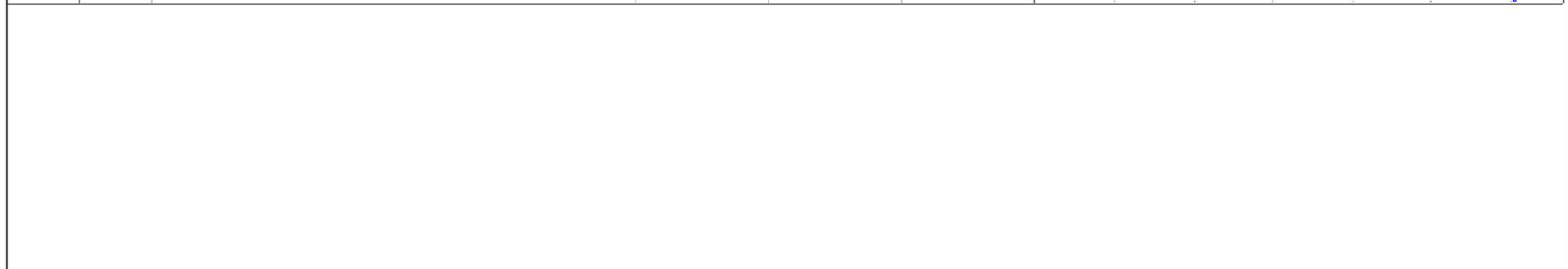
DESCRIPTION	CURRENT NEEDS	FUTURE REQUIREMENTS	VARIANCE
Office requirements			
Senior management			
Accounting, customer service, computer services, copy rooms			
Engineering and production planning			
Quality assurance			
Receiving and shipping			
Lobby area			
Conference areas			
Showroom requirements			
Lunchroom			
Restrooms			
Manufacturing			
Receiving area			
Manufacturing and assembly			
Warehouse requirements			
Shipping			
Sub Total			
Contingency			
TOTAL ESTIMATED NEEDS			

Special needs			
Dock doors			
Ceiling height			
Electrical			
Special lights			
Natural gas			
Water			
Sewer requirements			
Electrical requirements			
- Present			
- Future			
Floor thickness			
Hazardous materials storage			
Outside storage			
Parking requirement			
Sub Total			
Contingency			
TOTAL ESTIMATED NEEDS			

ID	Task Name	Duration	Start	Finish	July			August			Septemb			October			Novemb			Decemb			Janu		
					B	M	E	B	M	E	B	M	E	B	M	E	B	M	E	B	M	E	B	M	
1	Update meetings	111 days	Wed 7/20/05	Wed 12/21/05																					
25																									
26	Initial planning	1 day	Wed 7/20/05	Wed 7/20/05																					
27	kickoff meeting	1 day	Wed 7/20/05	Wed 7/20/05																					
28																									
29	Data collection	5 days	Tue 8/16/05	Mon 8/22/05																					
30	Equipment documentation	4 days	Wed 8/17/05	Mon 8/22/05																					
31	Process documentation	1 day	Tue 8/16/05	Tue 8/16/05																					
32																									
33	Layouts	38 days	Wed 8/3/05	Fri 9/23/05																					
34	Block layouts	1 day	Wed 8/3/05	Wed 8/3/05																					
35	Review block layouts w/ dept. heads	2 wks	Thu 8/4/05	Wed 8/17/05																					
36	Preliminary detailed layouts	1 day	Thu 8/18/05	Thu 8/18/05																					
37	Review detailed layouts w/ dept heads	4 wks	Fri 8/19/05	Thu 9/15/05																					
38	Review detailed layouts w/ top management	1 day	Fri 9/16/05	Fri 9/16/05																					
39	Utility layouts	1 day	Fri 9/23/05	Fri 9/23/05																					
40																									
41	Permits	40 days	Mon 8/29/05	Fri 10/21/05																					
42	High pile permit/racking	40 days	Mon 8/29/05	Fri 10/21/05																					
43	Bid for high pile/fire life safety	1 day	Mon 8/29/05	Mon 8/29/05																					
44	Select contractor for high pile/fire life safety	1 day	Wed 8/31/05	Wed 8/31/05																					
45	Racking layout design	7 days	Wed 8/31/05	Thu 9/8/05																					
46	Racking layout review	4 days	Fri 9/9/05	Wed 9/14/05																					
47	Fire/life safety review	12 days	Thu 9/15/05	Fri 9/30/05																					
48	Racking design submittal	1 day	Mon 10/3/05	Mon 10/3/05																					
49	Racking city permit process	15 days	Mon 10/3/05	Fri 10/21/05																					
50																									
51	Arch, mech, elect etc design	18 days	Mon 10/3/05	Wed 10/26/05																					
55																									
56	Move planning	8 days	Wed 9/14/05	Fri 9/23/05																					
57	Mover walk through	1 day	Wed 9/14/05	Wed 9/14/05																					

Date: Wed 1/31/07	Task		Milestone		External Tasks	
	Split		Summary		External Milestone	
	Progress		Project Summary		Deadline	

ID	Task Name	Duration	Start	Finish	July			August			Septemb			October			Novemb			Decemb			Janu	
					B	M	E	B	M	E	B	M	E	B	M	E	B	M	E	B	M	E	B	M
58	Receive bids from movers / rack installer	1 day	Tue 9/20/05	Tue 9/20/05																				
59	Select successful mover / rack installer	3 days	Wed 9/21/05	Fri 9/23/05																				
60																								
61	Move	37 days	Tue 10/25/05	Wed 12/14/05																				
73																								
74	Construction activity	47 days	Thu 10/27/05	Fri 12/30/05																				
75	General construction items	47 days	Thu 10/27/05	Fri 12/30/05																				
76	Piping	47 days	Thu 10/27/05	Fri 12/30/05																				
77	Compressed air installation	47 days	Thu 10/27/05	Fri 12/30/05																				
78	Electrical	47 days	Thu 10/27/05	Fri 12/30/05																				
79	Mechanical / Dust collection	47 days	Thu 10/27/05	Fri 12/30/05																				
80	Exterior pads	47 days	Thu 10/27/05	Fri 12/30/05																				
81																								
82																								
83	Critical path items	1 day	Mon 1/2/06	Mon 1/2/06																				
84	Office items	1 day	Mon 1/2/06	Mon 1/2/06																				
85	Preparation of facility	1 day	Mon 1/2/06	Mon 1/2/06																				
86	Changing electrical services	1 day	Mon 1/2/06	Mon 1/2/06																				
87	Install security systems	1 day	Mon 1/2/06	Mon 1/2/06																				
88	Clean up of old facilities	1 day	Mon 1/2/06	Mon 1/2/06																				
89	Telephone system upgrade	1 day	Mon 1/2/06	Mon 1/2/06																				
90	Computer system upgrade	1 day	Mon 1/2/06	Mon 1/2/06																				
91	IT installation	1 day	Mon 1/2/06	Mon 1/2/06																				



Date: Wed 1/31/07

Task		Milestone		External Tasks	
Split		Summary		External Milestone	
Progress		Project Summary		Deadline	

John Barry & Associates, specialists in Facility Planning, Industrial Engineering, Move Coordination, and Project Management, have completed numerous projects in the following areas:

AEROSPACE AND DEFENSE

- ❖ Hughes Aircraft
- ❖ Teledyne
- ❖ Ceradyne
- ❖ Smith Aerospace
- ❖ Thales Avionics
- ❖ B/E Aerospace

AUTOMOTIVE

- ❖ Maxon Truck
- ❖ Tomador
- ❖ Wolfe Automotive
- ❖ Centerline Wheel
- ❖ Corona Auto Body

HOTELS

- ❖ Four Seasons
- ❖ Hilton Hotels
- ❖ Marriott
- ❖ Mauna Kea Beach Hotel
- ❖ Sheraton

UNIVERSITIES

- ❖ UCLA
- ❖ USC
- ❖ Cal State Fullerton
- ❖ Loyola Marymount
- ❖ Notre Dame
- ❖ DeVry Medical Institute
- ❖ Mt. Saint Mary's

FOOD FACILITIES

- ❖ Chocolate a la Carte
- ❖ Newport Meats
- ❖ Wellington Foods
- ❖ CKE – Carl's Jr.
- ❖ Taco Bell
- ❖ Mother Butler Pies
- ❖ Van de Kamps
- ❖ Herbalife

GOLF

- ❖ Titleist
- ❖ Cobra
- ❖ Cleveland Golf

HEALTHCARE/MEDICAL DEVICE

- ❖ Daniel Freeman Hospital
- ❖ White Memorial
- ❖ Baptist Hospital – Montgomery, Alabama
- ❖ USC Medical Center
- ❖ Advanced Medical Optics
- ❖ Hancock Laboratories
- ❖ Cooper Medical
- ❖ Teva Pharmaceuticals

MANUFACTURED HOUSING/RV MANUFACTURING

- ❖ Robuilt
- ❖ Sportscoach
- ❖ Johnston Manufactured Housing

RETAIL

- ❖ After Hours Formalwear
- ❖ The May Co.
- ❖ Web Department Store
- ❖ Denny's
- ❖ The Black Tux

PLASTICS

- ❖ Fluidmaster
- ❖ Omni Plastics
- ❖ Southwest Plastics
- ❖ Pacific World

RESTAURANTS

- ❖ Denny's
- ❖ CKE - Carl's Jr.
- ❖ Taco Bell
- ❖ Coco's
- ❖ Rueben's
- ❖ Five Crowns
- ❖ Winchell's

HIGH TECH

- ❖ Symbol Technology
- ❖ Corning Optical
- ❖ Thales Avionics
- ❖ Teva Pharmaceuticals
- ❖ Gentex
- ❖ Extrumed

FINANCIAL

- ❖ Scripps Bank
- ❖ Sutro & Co.
- ❖ American Savings

PRINTING

- ❖ Money Mailer
- ❖ Schawk
- ❖ Delta Printing Solutions
- ❖ Apperson Print
- ❖ Universal

GOVERNMENT

- ❖ Los Angeles Welfare Department
- ❖ City of Los Angeles
- ❖ State of Michigan
- ❖ City of Westminster
- ❖ City of Simi Valley

CONSTRUCTION

- ❖ Quinn CAT
- ❖ Koll Construction
- ❖ AVCO
- ❖ Robuilt
- ❖ Sportscoach

BOTTLING

- ❖ Seven-Up
- ❖ Straub Distribution
- ❖ Teva
- ❖ Herbalife
- ❖ IHOI
- ❖ DuWop Cosmetics
- ❖ Ceramic Decorating

LAUNDRY/DRY CLEANING

- ❖ Angelica
- ❖ Mission Linen
- ❖ WASH Laundry Systems-Web Laundry
- ❖ Apparel Master
- ❖ Mister Neat's Dry Cleaning

CHEMICAL

- ❖ Wynn Oil
- ❖ Doe & Ingalls
- ❖ B/E Aerospace
- ❖ Maintex

APPAREL

- ❖ Quiksilver
- ❖ Hurley
- ❖ The May Co.
- ❖ Lord West
- ❖ Emerald Bridal
- ❖ Volcom
- ❖ Billabong
- ❖ Melmarc

JBA's engineers, MBAs, and construction specialists have designed millions of square feet for these and other leaders in each area.

Please take a moment to review our website, www.jbateam.com. Our website will provide solid case studies in this industry and other advanced manufacturing concerns.