White Paper

Integrated Project Delivery: “The Value Proposition”
An Owner’s Guide for Launching a Healthcare Capital Project via IPD

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An Owner’s Guide to Implementing IPD on Healthcare Capital Projects

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At the end of 2008, KLMK established a Thought Leaders Group in order to evaluate, investigate, discuss, and debate the intricacies of Integrated Project Delivery. The group met several times throughout the year and established the following goals:

- To define IPD and its usage in healthcare project delivery
- To determine an ideal process for implementing IPD into the delivery of a healthcare project
- To educate owners on IPD and its application to healthcare projects

We would like to recognize the following people for their role in our Thought Leaders Group. Without their insight, knowledge and participation, this White Paper could not have been written.

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This is a current working draft for review and critique. We recognize that this topic is consistently evolving. As more information becomes available and techniques and approaches improve, we will edit and expand on the existing content. Your input is welcome. Please send thoughts and feedback to: bmcmahon@klmkgroup.com.
Executive Summary

What project delivery approach will give you the best chance of accomplishing your strategic facility objectives? The selection of the preferred delivery approach is an important one and should be made very early in the process. The selected approach will drive many of the decisions impacting the selection and formation of the project delivery team and development of the master project budget and schedule. Selecting the right approach will greatly impact how effective the hospital CEO is in accomplishing their strategic vision for the facility.

Any major project involves significant risk. Healthcare projects are especially risky because they have the potential to disrupt life-saving services. During the project launch phase, the healthcare owner needs to select the delivery approach that best fits their project and minimizes their risk. First and foremost, a CEO needs to know the definition of project delivery approach – it is the planning, design, construction and other services necessary for organizing, executing and completing a building facility or project.

Healthcare owners are beginning to explore alternative ways of delivering projects. The traditional model is outdated and full of inefficiencies, thus making it difficult to achieve desired outcomes. Despite decades of attempts to improve on traditional delivery approaches (design-bid-award, design-build, construction manager at risk), projects are still frequently over-budget and delivered late. Often, and more importantly, the completed facilities do not improve the operational efficiency of the organization. Some of the most significant drivers of change are:

- Perceived inefficiencies in the current delivery model
- Renewed scrutiny on costs and budgets
- Desire for transparency
- Lack of trust
- Too much conflict
- Frustrations with defensive behavior and finger pointing
- Desire to improve communication and collaboration
- Increased publicity on an alternative / better solution
- Need for a better quality product

Understandably, owners are searching for a reliable project delivery process that produces more predictable outcomes. The industry is abuzz over new ways of delivering projects. Currently, there is a revolutionary shift to identify a delivery method that is more collaborative, incorporates operational efficiencies and applies the philosophies of “lean” manufacturing. This shift, to a more integrated form of delivery, has the greatest potential to correct the major problems with traditional approaches. However, Integrated Project Delivery or “IPD” is an approach that is gaining steam in the industry because of its potential and now realized results. This delivery method addresses all of the healthcare owner’s hot buttons in the areas of market demands, industry, technology/process and goals for the project as depicted in this graphical illustration:
Implementing an IPD approach on a healthcare project is no small task and should not be taken lightly. It takes a certain culture to be open to change and accepting of an alternative approach. Before a healthcare owner implements IPD, he should first conduct a thorough evaluation of his organization to determine if it is indeed qualified for such an approach. This can be done relatively quickly but experts agree it is time well spent before diving in head first. An internal team of stakeholders should be assembled, including representatives from medical and clinical staffs. This group should immediately confirm or develop the Value Proposition for the project. The “Value Proposition” will define exactly what the organization is trying to accomplish with this facility project and identify how the project will bring value to the strategic mission of the hospital. Once the value proposition is confirmed, the group should study the IPD process to determine if it truly provides the best solution to accomplish their goal. Only if the outcome is affirmative, should a healthcare owner implement IPD for their project.

The next step is to select the IPD team. Because the very nature of IPD is collaborative, it is imperative to establish a selection process that allows you to witness the interaction between the team members in order to evaluate the chemistry among potential members.
Once the team is assembled, the group can move into the Project Initiation Process. This critical stage is the foundation for ensuring successful completion of the project. During this two to five month phase, the IPD Team establishes the governing structure for the project, develops guiding behaviors, develops the risk equation/incentive plan and performs a launch gap analysis. The Project Initiation Process establishes how the Team will work, identifies the risks and rewards, and defines a plan of implementation. By investing a few months of hard work, you will end up with a superior process, team and outcome for your project. The chart below highlights the entire process:
IPD is a buzzword that is gaining momentum among the Architecture, Engineering and Construction communities. While it may be difficult to visualize its value at the outset of a project, any owner that is frustrated by traditional methods of delivery and looking to move forward with a capital project should consider IPD. The most significant reasons for choosing this model are:

1. Equitable Risk Allocation
2. Increased Collaboration
3. Transparency Across the Board
4. Fosters Trust
5. Maximum Return on Each Dollar Invested

If the number one driver of a project is price, IPD is not the appropriate delivery method. IPD is not the cheap alternative. Any delivery model has the potential to meet its schedule and budget. However, the question to ask is “What is the cost to achieve schedule and budget in terms of wasted effort, wasted dollars and unmet expectations?” IPD promises to deliver beyond the project scope “on budget and on schedule”. It can maximize the value of every dollar spent. As capital becomes more difficult to secure and competition continues to increase, every dollar spent must be used to create and drive value or it is an opportunity lost. Healthcare owners should demand a delivery model that will maximize their limited opportunities for capital investment and IPD has the ability to meet that need.

The primary objective of this white paper is to provide healthcare owners with a roadmap for evaluating and implementing an integrated approach on their facility project.
1. **Introduction: Traditional Delivery of Projects Must Change**

The pressure is mounting! Healthcare owners must find a way to deliver a project that addresses the demands for the latest technology, concerns about the environment, new government regulations, changes in reimbursement, transparency requirements, and they must get a sufficient return on their capital investment. And if all that is not enough to worry about, everyone wants to ensure that their projects are delivered in the quickest and least costly manner possible. When expectations of healthcare owners are elevated, the market must adapt to deliver desired outcomes. Old ways of doing things quickly become obsolete and ineffective. **The traditional project delivery process has simply become outdated!**

“Project delivery is at a crossroads.” That is the assessment of The Advisory Board, in its September 2009 webinar *Alternative Project Delivery Models*. The Advisory Board reported that healthcare owners are seeking alternative delivery models. A 2009 Facility Planning Forum Project Delivery Trend Survey, referenced in the webinar, indicated that over the past two years, Architectural/Engineering/Construction Requests for Proposal (RFPs), including questions related to Integrated Project Delivery (IPD) have increased by 19.7% and requests for Building Information Modeling (BIM), are up by 33.5%.

The industry is looking for alternatives to the traditional project delivery method. There is a revolutionary shift in the way projects are delivered to a more integrated form of delivery which will address most of the concerns of the healthcare owner as mentioned above.

The Goals of this white paper, written specifically for the healthcare owner, are to:

1. **Define Integrated Project Delivery**
2. **Identify a process by which a healthcare owner can evaluate whether IPD is the correct approach to deliver a healthcare capital project.**
3. **Provide guidelines for launching an IPD project.**
II. What Exactly Is IPD?

IPD, as defined by the American Institute of Architects, is “a project delivery approach that integrates people, systems, business structures and practices into a process that collaboratively harnesses the talents and insights of all participants to optimize project results, increase value to the owner, reduce waste and maximize efficiency through all the phases of design, fabrication, construction and occupancy.” Efficiency goes up and waste goes down under a successful IPD process. In other words, true IPD is a collaborative capital project delivery method that shares risk and reward in an integrated form of agreement to reduce the time and cost to bring a superior product (a new, expanded or renovated facility) to market.

In the traditional delivery model (known as “design/bid/award”), a project is designed and is then bid to several construction firms. Typically, the lowest bidder is awarded the contract. Operational decisions are made throughout the design process but their impact on the cost or scope of the overall project may not be realized until later in the process. In IPD, the team is brought on board at the start of the project so that cost and scope decisions can be determined by the entire team.

The chart below illustrates the main differences between the traditional models of delivery and IPD:

<table>
<thead>
<tr>
<th>Delivery Approach</th>
<th>Characteristics</th>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design-Bid-Award</td>
<td>• Two Main Contracts (Design Team &amp; Contractor)</td>
<td>• Low First Cost</td>
<td>• Presents Highest Risk</td>
</tr>
<tr>
<td></td>
<td>• Best Understood</td>
<td></td>
<td>• Stimulates Adversarial Relationships</td>
</tr>
<tr>
<td></td>
<td>• Linear Sequence of Work (Longest Delivery)</td>
<td></td>
<td>• Encourages Change Orders</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Contractor Has Minimal Input in Design</td>
</tr>
<tr>
<td>Design-Build</td>
<td>• Single Contract/Responsibility</td>
<td>• Sole Source of Accountability</td>
<td>• Minimum Innovative Design Potential</td>
</tr>
<tr>
<td></td>
<td>• Faster Delivery</td>
<td>• Increases Potential for Early Completion</td>
<td>• Owner Less Involved in Design Decisions</td>
</tr>
<tr>
<td></td>
<td>• Changes Traditional Roles and Relationships Between Owner, Contractor and Designer</td>
<td>• Less Adversarial</td>
<td>• Owner Pushed for Earlier Decisions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Earlier Knowledge of Firm Price</td>
<td>• Not “Open Book” on Pricing &amp; Level of Quality</td>
</tr>
<tr>
<td>Construction Manager (CM At Risk)</td>
<td>• Two Main Contracts (Design Team and Contractor)</td>
<td>• Fosters More Collaborative Environment</td>
<td>• Perception That Price Competition is Limited</td>
</tr>
<tr>
<td></td>
<td>• Linear Sequence of Work but Accommodates Fast Track Delivery</td>
<td>• Allows for Tight Control of Pricing and Schedule</td>
<td>• Design Team May Not Take Input From CM During Design</td>
</tr>
<tr>
<td></td>
<td>• CM is Selected on Qualifications, Not Price</td>
<td>• Allows for Phased Construction</td>
<td>• Still Can Foster “Figure Pointing” Behavior</td>
</tr>
<tr>
<td></td>
<td>• CM Selected Early in Delivery Process</td>
<td>• Full Disclosure of Cost and Schedule Throughout Delivery Process</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Reduces Owner Risk</td>
<td></td>
</tr>
<tr>
<td>Integrated Project Delivery (IPD)</td>
<td>• One Integrated Form of Agreement</td>
<td>• Owner, Architect and Contractor Act As One</td>
<td>• Perception That Cost Competitiveness is Limited</td>
</tr>
<tr>
<td></td>
<td>• Mutual Respect and Trust</td>
<td>• Owner Can Tailor the Best Aspects of Design-Build and CM-At-Risk</td>
<td>• Can Be Complex to Administer</td>
</tr>
<tr>
<td></td>
<td>• Mutual Benefit and Reward</td>
<td>• Shared Risk and Rewards</td>
<td>• Can Require Major Culture Change on Part of Owner, CM and Design Team</td>
</tr>
<tr>
<td></td>
<td>• Early Involvement of All Key Delivery Team Members</td>
<td>• Allows for Reduction of Costs by</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Early Goal Definition</td>
<td>Eliminating Redundant Efforts</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Delivery Relationships Changes From Adversarial to Collaborative</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Increase Ability to Deliver Project Within Budget and Schedule</td>
<td></td>
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<td></td>
<td></td>
<td>• Increases Ability to Deliver a More Operationally Efficient Facility</td>
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Many healthcare owners believe that the traditional way of delivering projects is outdated and full of inefficiencies. Some of the symptoms of this broken system are:

- Cost surprises leading to a spiraling project cost
- Scope of project growing out of control
- Inability to stay within budget
- Unmet and unrealistic expectations
- Poorly functioning designs resulting in redesign
- Changing team members throughout the project
- Schedule delays impacting return on investment (ROI) and productivity
- Worst case: lawsuits or other liabilities

**Key Point: IPD can be a way to alleviate the symptoms of a Broken System!**

IPD takes a very collaborative approach to the delivery of a project and strives to eliminate waste and share risk and rewards among key team members through an integrated form of agreement. IPD integrates operational process into the design and construction of the project and truly gets all team members “singing from the same sheet of music” much earlier in the project.

This chart, as adapted from AIA, shows the key differences and characteristics in the major areas of a traditional delivery of a project vs. an integrated delivery process.
A. Foundations of IPD in Healthcare Construction

IPD traces its roots to Sutter Health, one of the early adopters of the process of Lean Project Delivery. They realized that Lean practices being applied to the operations of hospitals could also be applied to their development program. Will Lichtig, a lawyer with McDonough Holland and Allen PC, in Sacramento, California and counsel for Sutter Health had become tired from 20 years of claims work and knew there had to be a better way of delivering projects. In an interview with Lichtig, he stated that his goal was to “re-shape and change the industry by promoting a more collaborative and integrated approach”. Participants at Sutter Health explain that Lean construction principles have been around for almost 20 years but they discovered that few contractors or architects used them in part due to the absence of a relational contract. Sutter Health calls this contract the integrated form of agreement (IFOA). Lichtig was instrumental in authoring one of the first IFOAs, which was released in 2005. Today, Sutter Health uses this IFOA as a basic foundation of their projects which utilize an IPD process.

As Sutter Health has found, at the foundation of IPD and the IFOA is trust. Without trust it is impossible to deliver a project using integrated project delivery principles.

“\'I\'ve been waiting for 27 years to do a job like this…No more finger-pointing….It\'s about trusting your partners or it doesn\'t work….We all sink or swim together…Nobody cuts corners…We are \'incentivized\' to help each other....There is no \'we\’ or \'they\’….Its one team…Our goals are aligned…We share risk and reward with the owner and contractor”

Quoted from a Sutter team member in Engineering News Record article about Sutter Health dated 11/26/07

Integrated Project Delivery is Relational, Collaborative and Lean:

- It is Relational because the contract signed by all parties provides financial incentive to mitigate risk. An IPD contract reduces overall risk by making all parties responsible to each other.

- IPD is Collaborative because it creates a larger talent pool during the critical coordination stage at the very beginning of a project and harnesses the insights of all participants. The larger talent pool comes from gathering all necessary expertise at the outset of the project. This concept is familiar to many healthcare owners who are applying Lean principles to their own operational processes.

- IPD applies the same Lean principles to development and thus reduces waste and optimizes efficiency through all phases of design, fabrication, construction and occupancy. It creates an environment to allow proper allocation of resources and responsibilities in order to reduce errors and avoid rework.
The following are **critical keys** to the success of an IPD project:

- A committed, knowledgeable, trustworthy, and decisive owner.
- An effective project charter that is established early and that delineates clear lines of communication.
- A Core Project Team with relevant experience assembled early in the planning process and one that works well together.
- A contract that encourages and rewards organizations for behaving like a team.
- Trust of and by all project team members.

**Key Point:** One of the key questions you must ask yourself when you are considering IPD is, “Are you willing to TRUST your architect, construction manager and project advisor?”
III. Is IPD Right for Your Project?

A. IPD Process: The Go/No-Go Approach
There is a very specific process to follow to evaluate whether IPD is right for your project AND whether your organization is qualified to implement IPD on your project. The following process map should serve as a guide to take you through that process and end up with an IPD Implementation Plan:
B. Organization of Project Delivery Team

At the onset of the launch phase, the CEO needs to select and organize members of the internal project delivery team. Just as a surgeon cannot operate alone, a CEO cannot embark on a major undertaking without help from people who have expertise in such a project. The chart below illustrates how internal and external specialists come together to form the project delivery team.

The CEO leads the team through the Facilities Planning Committee (FPC), which is made up of internal and external team members. Active and continuous involvement of all members greatly improves the potential of a successful project outcome from an operational and design perspective.

**Key Point:** Do not operate alone! Active, Collaborative and Continuous involvement of key stakeholders greatly influences success or failure!
Internal Team: Organization and Responsibilities

The internal team is responsible for creating the project vision and making this vision a reality. The internal team typically parallels the existing management and governance framework of the organization in that it involves the board, senior leaders, and medical staff. The constitution of the internal team is highly dependent on the organization’s culture and should include certain staff members, such as certain departmental staff, who have experience in and knowledge of the specific needs and obligations of the project that is being implemented. Some organizations opt to keep key planning decisions among a select group of executives and senior-level staff.

Key Point: Two Stakeholder groups that should not be ignored: The Medical Staff and the Clinical and Nursing Leadership!

Not involving the medical staff is a critical mistake because physicians bring clinical and patient care expertise to the equation. This expertise, when combined with the other stakeholders’ capacity to plan and design a functional facility, results in a project that not only considers spatial needs but also reflects the medical component. For similar reasons, clinical and nursing leadership involvement in the process is also crucial to bring patient advocacy and operational perspective to the process.

The organization of the internal team typically includes control not only over internal resources but those external to the organization. Experts agree that it is imperative that internal leadership sources maintain authority and accountability over all team members.

The team members should have a clear understanding of the internal team’s purpose; the role, responsibility, and time commitment required of each member; and the impact of the team’s work on the delivery process. The most successful projects are the product of extensive involvement from the following stakeholders:

• Facilities Planning Committee
• Board of Director’s Building Committee
• Medical Staff’s Building Committee
• Departmental Task Forces
• Focus groups
C. Determination or Confirmation of the Value Proposition

Once you have organized your internal structure, it is time to answer this crucial question: Is IPD the best instrument to help you accomplish your facility objectives?

First, you must determine or confirm your true value proposition for the project. What are you trying to accomplish in the first place? Developing your value proposition will help determine if an IPD approach is the best model for the project. Begin by identifying the goals or drivers for the strategic facility initiative. Below are a few areas of discussion that will help to confirm what is truly driving the project:

- Service Line Development
- Addressing Market demands
- Reaction to governmental impact on healthcare
- Better Clinical outcomes
- Most inexpensive solution available
- Operational Processes Review

After establishing the drivers for the project, continue to refine the value proposition. The following questions should be addressed: “What is really important to the healthcare owner on this project and how can this project create a unique value that drives customers to their facility?” Topics to consider:

- **Speed to Market (Schedule)** – Establish the desired date of substantial completion and occupancy of the facility. Determine the date to begin operational orientation and training of the staff.

- **Cost Control (Budget)** – Determine the construction budget as well as the overall project budget goals. How much contingency will be carried in the overall budget and how should that contingency be applied throughout the project?

- **Operational** – Define exactly how important it is to minimize surprises and disruption to on-going operations during the project? What measures will be taken to assure 100% safety performance in the project? How important is infection control and does the project have an exposure to this area? How will information technology and medical equipment be integrated into this project?

- **Behavioral** – Develop the expectation for team behavior during the project. Include the subcontractors in the expectations. Should this project promote openness to new ideas from both community and team members? Should the project be an environment for proactive problem solving? What are the communication expectations? How can the team members of this project assure improved relationships among the participants and stakeholders?

- **Quality** – Determine whether to implement a design quality control process. Are there LEED, Evidence Based Design or other concepts that will be pursued on the project?

- **Community** – How can the design and construction team ensure optimal relations with neighbors in the surrounding community? What type of guidelines should be established for management of public relations surrounding the project? What plan is in place to manage crisis public relations (electricity cutoff, natural disaster, etc.)?
When the Value Proposition is developed or confirmed, address the following: “What exactly is our definition of IPD?” Answering this question will identify whether all of the stakeholders are on the same page. Be mindful of the fact that some owners are not “qualified” for true IPD. True IPD is more than merely selecting a project team early in the process and working toward a “partnering” type of collaborative arrangement.

The decision to utilize IPD should come only after careful consideration and thorough discussion of the following questions by all participants:

**Consider These Factors Before Adopting an IPD:**

1. Are the top leaders in your organization prepared to embrace the ideals of IPD and be their champions? It’s not enough for an organization to enter into an IPD project with only the support of the professionals involved in managing the day-to-day project activities. The CEO, COO, CFO, (and others) and the hospital board must also be convinced of the value of IPD.

2. Are you open to move into trusting relationships with all team members within a short period of time? Remember…..Trust is the cornerstone of IPD.

3. Is there a culture of continuous improvement within your organization? The mindset to innovate and be open to improving tried and true processes must be prevalent.

4. Is your organization prepared to take measured risks for the potential of more reward? The IPD Agreement breaks away from the traditional protections afforded by industry standard contracts as it rewards the collaborative team for good performance.

5. Are there individuals in your organization that could act as impediments to an IPD process? Leaders in each organization involved in an IPD project must be prepared to remove any individual that could derail the project.

6. Is your organization considering IPD as a competitive advantage because of the buzz it might create, or because you are committed to improving the performance of the industry? The success of an IPD project is only as good as the level of commitment and understanding of all team members.

7. Is your organization completely focused on the bottom line at all cost? The IPD process seeks to harness the talent of individuals upon project inception which might mean a larger investment at an earlier phase of the project as compared to a traditional delivery approach. A low bid mentality and padded fees, to protect against unknowns, cannot be a part of IPD.

8. Does your organization have the patience to trust the process and allow it to work? The journey into IPD is new for many participants. There must be patience as traditional barriers are broken down and organizations enter uncharted waters together.

9. Is your organization fragmented and not collaborative internally? Collaboration starts from within. The spirit must be present in your organization before it will be evident in your relationship with other team members.

10. Does your organization fully understand IPD and the ideals that surround it? Each organization must be thoroughly educated on what makes IPD successful and evaluate whether it aligns with their culture and values.
Integrated Project Delivery: “The Value Proposition”
An Owner’s Guide to Implementing IPD on Healthcare Capital Projects

IPD is only as effective and successful as its participants. As a theory and concept alone it is not powerful enough to ensure success. The successful IPD project is a network of individuals that are thirsty for knowledge, egoless, reflective, responsive, inquisitive, solution driven and compelled to serve a mission greater than that of their own firms. Decisions are based on the good of the project and the team as a whole.

So, is IPD right for your project? If so, then you can move on to the next step, which is the selection of your IPD Team.

**Key Point: True IPD is jumping in with both feet into a collaborative arrangement with your project team and contractually binding that team to work together.**
IV. IPD Implementation Process

A. Team Selection

Because the very nature of IPD is collaborative, it is imperative to establish a selection process that allows you to witness the interaction between the team members in order to evaluate the chemistry among potential team members. The easiest way to accomplish this is to conduct a series of “planned interactions” with select candidate teams to evaluate the integration among them. Selection becomes more of an art than a science, in an IPD project, as you evaluate each team member’s ability to be relational, collaborative and lean. These are not exactly quantitative elements, which is why this will most likely be different from any selection process in which the healthcare owner has been involved.

Prior to beginning any selection process, begin by identifying who will be selected. The above graphic provides a high level look at the players involved in an IPD project. At the very minimum, the selection process should focus on finding the best Core Team. In addition to the Owner, the Core Team should consist of the Architect, Enginee, and Contractor, at a minimum. Depending on the needs of the project, the Core Team may also include Specialty Consultants such as Medical Equipment & Technology Planners and Trade Contractors (Electrical, HVAC and Structural Steel). Each project is unique and may require a different approach. Understand the needs of the project and develop a tailored approach that will provide the best results.
Step 1: **Determine the selection committee.** The committee should consist of a mix of top organizational leaders and a variety of project stakeholders. These individuals, for the most part, make-up the Project Customers. Committee members should be prepared to invest quite a bit of time into the selection process as to not miss any interactions with interviewing Teams.

Step 2: **Develop the Team selection criteria.** This is where IPD truly differentiates itself from the traditional delivery method. As stated above, IPD Team selection is something of an art. Technical competence and professional qualifications are assumed to be very high for any firm that is invited to participate. Developing criteria that allows teams to exhibit their ability to work together is very important.

Step 3: **Identify candidate firms.** Develop a list of architects and construction managers with the skills and qualifications necessary to fulfill the scope of the project. It is also productive to add engineers or prime specialty consultants, such as medical equipment and technology planners. Local firms or firms that have been used in the past and have a relationship with the owner should be scrutinized with the same level of intensity as all others. This different approach may eliminate some of the firms that have previously worked at the facility. Once the list is developed you should create a Request for Integrated Team (RFIT) that outlines the process and criteria for selection.

Step 4: **Issue the RFIT.** Once the RFIT has been distributed, the following process should be implemented:

1. **Conduct a pre-submission Site Visit with all the firms on the list.** This is the first and perhaps most important opportunity for the Selection Committee to evaluate the interactions among the firms and the individuals that will be involved with the project. It is worthwhile to spend a minimum of a half day and as much as a full day with the firms being considered. In order to focus questions and conversations, the list of attendees should be divided by specialty. All members of the Selection Committee should take part in the initial site visit. The objective is to communicate the traits in which you are looking to the firms and to allow them to get to know you better. Again, this is relational contracting with the core foundation based on trust. The selection team should plan to meet immediately following the visit in order to discuss interactions with each firm.

2. **Request for self assembly of Teams based on cross relationships between firms listed in the RFIT.** The primary firms should also include any specialty consultants necessary to deliver the requested services. Firms should be allowed to partner with companies not included in the initial RFIT list, but only after seeking the owner’s approval. By allowing firms to self assemble you will avoid conflicts and potential separation down the road. While not foolproof, partnerships based on past experiences and similar corporate cultures often provide the best outcomes. A time period of three weeks is advisable to allow teams to assemble.
3. **Submittal of qualifications from each Team based on instructions in the RFIT.** The entire Selection Committee should be involved in evaluating each firm’s Submittal of Qualifications. All evaluations should be based on previously developed selection criteria. In order to maintain a transparent process and one that can be audited, it is advisable to include the proposed evaluation tool in the RFIT. In the past, many complex weighted equations have been used to “grade” submissions. However, we recommend using no more than 10 criteria and weighing them equally.

4. **Shortlist to 3-4 Teams to continue the process.** Due to the detailed interactions that will take place during the final stages of selection, the shortlist should be limited to no more than four teams. Ideally, you should interview three teams.

5. **Conduct half-day workshops with each of the short-listed Teams.** Establish an overall goal for the deliverable expected from each Team, such as a proposed work plan for the project or option for design. Do not set a specific agenda. Instead, allow each team to develop their own plan in order to evaluate the group’s time management, organizational skills, and facilitation abilities. This session provides each Team with the opportunity to gather information and ask questions in order to complete its presentation. Again, it is important for the Selection Committee to meet after the workshops and evaluate their interactions with each Team and its individual members. They should then review the Submittal of Qualifications and compare the evaluations from each meeting. Concerns should be noted and discussed at this meeting also. If any Team does not appear to be a fit, they should be eliminated prior to the final presentation.

6. **Conduct final half-day presentations for each of the remaining Teams.** Half-day workshops should be scheduled for the final presentations. As with all previous meetings, the entire Selection Committee should be present. Upon completion of the presentations, the Selection Committee should meet to evaluate the performance of each Team.

**Step 5: Select the IPD Team.** The Selection Committee should now review its selection criteria and meet one week after the final presentations. This allows time for each Committee member to fully analyze the interactions throughout the entire process. Since each Team visit was followed by a Committee assessment and recap, there should be sufficient documentation to thoroughly evaluate each group. Each Committee member should complete a final evaluation form for the different Teams and then cast a single vote for his or her choice. To keep it simple, the Team with the most votes wins. In the event of a tie, consideration should be given to the possibility of having an additional Team interaction.

IPD Team selection requires a significant investment of time from both the Selection Committee and the candidate Teams. The entire process can take between 60-120 days from the formation of the Selection Committee to the final Team selection. For this reason, you should consider reimbursing the shortlisted Teams to some extent. Teams do not expect to be fully compensated for their work, but the offer of reimbursement strongly demonstrates your commitment to developing a true integrated team.
Case Study on Team Selection: Hurley Medical Center

Hurley Medical Center is a 443 bed public, non-profit, teaching medical center located in Flint, MI. Currently designed for only 35,000 annual visits, the Emergency Department (ED) has been treating 75,000-80,000 patients annually. Guided by a Master Plan, completed in 2007, Hurley decided to expand the (ED). Prior to developing a clear definition for the project scope, schedule and budget, Hurley believed the first step in launching the project was to select an Architect using the traditional request for proposal, response and interview process. When they began to receive proposals and review candidate questions, they realized they should rethink their launch plan. Hurley determined that they should conduct a Launch Gap Analysis to align their executive team and to identify gaps that needed to be addressed prior to team selection and project launch. Through this three month process, they identified that the needs of the ED project demanded an alternative delivery model. With limited capital and a critical need, it became apparent that this project would not be successful under the traditional delivery method. To ensure that precious dollars went to the expansion, as opposed to curing an aged infrastructure or hedging the risks of team members, collaboration at the highest level would be required. While replacing aged infrastructure was a priority, sufficient funds were only available for the ED project. In light of the situation, Hurley executives chose to utilize an Integrated Project Delivery approach and select an Integrated Team.

The selection process identified previously was followed step by step. Hurley chartered a Selection Committee made up of representatives from the Board, Administration, Nursing, Medical Staff, Support Services and Public Relations. As a result of the Launch Gap Analysis, the Committee brought different perspectives and talents to the table and was aligned to a common goal.

A major concern identified by the Launch Gap Analysis was the campus location for the new ED. This became the Workshop Problem for each of the shortlisted teams. On this particular project, Hurley executives felt that it was necessary to hire the Core Team, Specialty Consultants and Trade Contractors all at once. This would allow for the selected team to hit the ground running and develop a more confident scope, schedule and budget much earlier in the project timeline.

After evaluating all of the team interactions and final presentations, the Hurley Selection Committee recommended a team to the Executive Steering Committee and Board of Managers. Feedback from the Selection Committee members, regarding the process, was very positive. Many of the members had participated in past selection committees and commented that this process increased their confidence level in their final recommendation. They attributed the higher confidence to the interactive nature of the process and the iterative steps.

Despite the overall success of the IPD process, as with any endeavor, there are lessons to be learned. Throughout the process, many education sessions with the Board and Executive Team were held to ensure understanding of the IPD approach and the Team Selection Process. While these educational sessions were helpful, they may not have been specific enough in regard to details. The decision to select the Major Trade Contractors, along with the Core Team, was right for the project. However, it had implications for the Board as community leaders. Local businesses, vying for a spot on the project, felt that they may have been excluded despite the fact that multiple Trade Contractors were placed on various teams for considerations. Because the Board and Executive Team did not understand the process and it was not communicated in detail, they questioned the results. Detailed two-way communication with the Board and local business community will result in a smoother selection process.
B. Project Initiation Process

You have identified your value proposition, determined that IPD is the right approach for your project, and picked your team. The next phase, the Project Initiation Process, is a four-step process to:

1. Organize the Governing Structure
2. Develop the Integrated Form of Agreement
3. Determine an effective Incentive Plan
4. Conduct a Launch Gap Analysis, which will help you determine if the Team is truly ready to launch the project.

A specific set of activities needs to be organized into a focused period of time to accomplish this initial task. This process can vary in duration depending on the project size and scope, but typically takes 90-120 days. In addition, the Project Initiation Process will allow the owner to get a tangible work product while continuing to ensure that all parties are truly aligned and prepared to take the IPD journey.

The Project Initiation Process drivers are as follows:

1. The need for a solid project foundation
2. Desire for successful project outcome
3. The need to focus attention on project processes (not design)
4. Desire to establish a fair yet firm compensation structure (making this a non-factor later)
5. Desire to firmly and positively establish key relationships and trust-building

Team members must be patient during the Project Initiation Process. It is not advisable for the owner or any other Team member to shortchange this process. Investing sufficient time early in the process will pay dividends down the road.

Step 1: Establishment of a Governing Structure of the IPD Team. The Governing Structure will guide the Team behaviors and define the dispute resolution process, both of which will be developed during the Team Alignment Workshop. The IPD project is led by an Executive Steering Committee. They set the guardrails that the IPD Team must stay within. The make-up of this committee includes senior level executives from all parties including the Owner, Architect, Contractor and Engineer. Meetings are held once a month and all critical decisions that may affect scope, schedule and budget are made at this level except when that decision would steer the project outside the guardrails established. The day-to-day management of the project is handled by the Core Group. This group is made up of representatives from the Owner, Architect, Contractor and Engineer that have the prime day-to-day responsibility on the project. They meet weekly and at least one meeting per month is focused solely on team dynamics and behavior. It is important that the Core Group be empowered to make decisions in order to maintain progress. Finally, the Core Group manages trade contractors, specialty consultants, clinical groups and other support personnel that take part in the delivery process.
Note: The initial Core Group should be empowered to manage the project and make decisions based on guidelines established by the Steering Team. The Core Group should meet weekly.

**Step 2: Team Alignment Workshop.** Once the governing structure is established and members have been named, the second step is to conduct an alignment workshop. The goal of the workshop is to develop the guiding behaviors as well as a dispute resolution process. The guiding behaviors are a list of ideals that each Team member will embrace during the project delivery process. Each Team member is required to sign the final charter in agreement with the guidelines set forth for the process. The Core Group should meet monthly to evaluate the behavior, interactions and performance of all Team members and determine whether any disciplinary action is necessary. It is the Core Group’s responsibility to ensure that no Team member acts in a manner that could derail the project from ultimate success.

Development of a dispute resolution process should begin at the Core Group level and be organized around dispute avoidance. In addition, dispute resolution should encourage and promote the occurrence of essential conversations at the Core Group level to identify pitfalls and quickly resolve them. The decision must be made as to who has the ultimate authority – the Owner or the Core Group members. Arguably, IPD in its purest form would lead you to allow majority vote to rule. However, considering the Owner is taking the most risk it is not practical for the Core Group to assume that they would have ultimate decision making power. Should an impasse exist at the Core Group level, the Senior Management Steering Team should be called to order to provide resolution.

**Step 3: Risk and Incentives Session.** The next step is to develop the Risk Equation, identify the Incentive Plan and develop the Integrated Form of Agreement (IFOA) that will bind the prime members of the Core Group. From a process standpoint, it is recommended that the owner organize an initial half-day to review the risk equation for all parties and determine equitability. Decisions regarding the insurance program must also be made. When selecting a plan the Team must avoid the barriers of traditional insurance products that result in a hesitancy to really collaborate and encourage self-protecting. This is discussed further in Section IV of this White Paper.
Creating an Incentive Plan that is truly objective and fair to all parties on an IPD project is difficult. From an owner’s perspective, it may seem inappropriate to pay for “performance” since you expect performance as part of the initial agreement. From the design and construction professionals’ perspective, it only makes sense to pay for “performance” considering they are taking on additional risk. By working in a manner that releases them from the protective leash provided by standard contracts, standards of professional care and professional liability insurance programs, design and construction professionals no longer have the guarantees that they once had. However, these guarantees have resulted in a highly inefficient and broken delivery model. Only by collaborating and forcing essential conversations around incentives can a plan be developed that is agreeable to all parties.

The following sample agenda for a half-day Risk and Incentives Session can be used to facilitate the meeting:

<table>
<thead>
<tr>
<th>Risk and Incentives Session</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Agenda</td>
<td></td>
</tr>
<tr>
<td>I.  Importance of Consensus</td>
<td>15 minutes</td>
</tr>
<tr>
<td>II. What is Important to the Owner on this Project?</td>
<td>60 minutes</td>
</tr>
<tr>
<td>III. Defining “Risk”</td>
<td>45 minutes</td>
</tr>
<tr>
<td>IV. Building the Customized Incentive Plan</td>
<td>90 minutes</td>
</tr>
</tbody>
</table>

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I. Importance of Consensus

II. What is Important to the Owner on this Project?
- Schedule, Budget, Operational Goals
- Allocation of Importance (Assigning Percentages)

III. Defining “Risk”
- For the Owner
  - From an Operations Perspective
  - From a Community Perspective
- For the Construction Manager
- For the Architect and Engineer

IV. Building the Customized Incentive Plan
- Examples from other plans (pros and cons)
- Goals or Guidelines of the Plan
  - Tactical or Strategic
- Which Team Members should be included
- Funding for the Plan
- Governance of the Plan
  - Make-up of the Governance Group
  - Meeting Schedule
  - Project Acoustics
- Establishment of Success Payments
  - Timing of the Distributions
Once the Risk and Incentives Development sessions are complete, an IFOA template can be developed (Options for these agreements are explained in further detail in Section V). The template should be sent to all parties and sufficient time allowed for review prior to conducting a series of two negotiation workshops. To avoid never-ending contract execution, two multi-day negotiation workshops should be scheduled over the course of two weeks. Each party in the agreement must commit individuals with signing authority to attend each session. The second session should not end until all parties have signed the IFOA. Because the IFOA guides governance, behaviors and incentives on an IPD project, it is important that the agreement is signed during the Project Initiation Process.

**Step 4: Launch Gap Analysis.** This is the last step in the Project Initiation Process. The IPD Team will conduct a thorough data and information analysis. It will also meet with the leadership team to determine what is known, what is unknown, what has been completed and what remains to be done. This will be followed by a series of half-day workshops aimed at identifying gaps in expectations versus realities. The outcome of this process is a Project Implementation Plan, a road map, for bridging the gaps. The Launch Gap Analysis process can be summarized as follows:

1. **Discovery (History & Physical)** – What information is currently available relative to the project? What studies have been completed to date? This part of the process involves data gathering, interviews and analysis.
2. **Gap Analysis (Diagnosis)** – Where are the gaps in what is known and unknown? What additional information is required in order to recommend launch of the project?
3. **Implementation Plan (Treatment Plan)** – What is the plan to ensure expectations are aligned and that everyone is headed in the same direction?

The Launch Gap Analysis defines the project in a holistic manner and does not isolate the definition to just bricks and mortar. The following key areas should be explored:

1. **Strategic Master Facilities Plan** – What’s the reason for the project? What are the priorities?
2. **Project Vision and Guiding Principles** – How well do you understand evidence-based design, LEED certification, and sustainable design concepts? What do these concepts mean to your project? What does it mean to be truly flexible?
3. **Site Analysis and Land Acquisition** – If the project is not on an existing site, what sites are available for purchase?
4. **Project Delivery Approach Selection** - What project delivery approaches are available, and what are the pros and cons of each? What IFOA form will be applied?
5. **Project Delivery Team Organization** – Who will be on the Core Team? What guidelines for behavior will the Team adopt?
6. **Alternative Financing Opportunities** - Where’s the money coming from? Is it enough?
7. **Integrated Process Planning** – Is there a desire to improve processes? What are the priorities?
8. **Master Program Budget** - Do you know how much money you can spend on the project? Is your budget realistic, given the project scope?
9. **Master Program Schedule** – How long will it take? What’s realistic?
10. **Medical Technology and Equipment Strategy** – What’s the project scope and how was it defined? Is there a strategy and vision for technology and medical equipment?

11. **Regulatory Approach** – What regulatory bodies have jurisdiction?

12. **Transition and Occupancy Strategy** – Is your team ready to move? Have they planned and prepared for operating in the space?

The power of IPD is that the healthcare owner will receive the most in-depth analysis at the earliest stage of the project delivery process from an integrated team of professionals. The IPD Team will feature experts in all areas addressed in the Launch Gap Analysis and will allow for the development of a thorough IPD Implementation Plan.

At the conclusion of the Project Initiation Phase, the team should be able to produce an IPD Implementation Plan that outlines the structure to move into integrated process planning for the facility. The Project Initiation Process is where true value is created for the owner and a path to success is developed. You must go in with your eyes wide open and realize that you will most likely face some barriers during this initial phase, including the following:

1. The IPD Team and owner may lose patience should the project not move out of the gate as quickly as they expect.
2. There may be a lack of commitment from senior management of hospital administration.
3. Owner indecision may result the design is not “on paper” and decisions are being made quickly.
4. Lack of consensus on IFOA and Incentive Plan can derail the project before it begins.
5. Inappropriate behavior that appears to be irreversible can exist. The Core Team should deal with this immediately.

Your decision to embark on a capital project delivery process is of huge significance. Some believe that IPD exposes you to more risk than the traditional project delivery method. However, IPD has the potential to offer a much greater reward. It provides a holistic approach that encourages innovation, collaboration, and extraordinary results.

| Key Point: The Project Initiation Process establishes how the Team will work and defines a plan of implementation. By investing 60 to 120 days of hard work, you will end up with a superior process, Team and outcome for your project! |
V. Risk Management and Contracting Methodology

A. The Risk/Reward Equation – Scope, Schedule and Budget

The healthcare owner has the most to gain and the most to lose from the delivery of a capital project. In most cases, the owner actively seeks to mitigate the risks associated with the following “Hot Button Issues”:

- Liquidated Damages
- Consequential Damages
- Delay Damages
- Indemnity
- Insurance
- Claims and Dispute Resolution
- Inspections
- Overhead Costs
- Contract Interpretation

Over the years, many contractual tools and project delivery models have yielded an approach to risk that often mirrors that of a piece of “conduit”. This risk model seeks to shift the risk from the owner and place that risk on the respective project delivery team members. This risk is most often shifted via the contract language and available insurance products. It is this “Traditional” risk approach that has shaped the behavior model that so many healthcare executives want to see changed. The Traditional Model seeks to mitigate “Hot Button Issues” through risk transfer techniques illustrated in the chart below.

### Traditional Project Risk Model – “Conduit Approach”

<table>
<thead>
<tr>
<th>Transfer Risk Through Contract</th>
<th>Transfer Risk Through Insurance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guaranteed Maximum Price - GMP</td>
<td>Buy Insurance</td>
</tr>
<tr>
<td>Unlimited Consequential Damages</td>
<td>Have others buy insurance</td>
</tr>
<tr>
<td>Liquidated Damages</td>
<td>Offer broad indemnities</td>
</tr>
<tr>
<td>Indemnification and Hold Harmless Clauses</td>
<td>Demand high limits and broad coverage</td>
</tr>
<tr>
<td>Push risk down to the lowest common denominator through owner-favorable contract language.</td>
<td>Demand additional insured status and confirm by collecting insurance certificates</td>
</tr>
</tbody>
</table>

Core Project Team members (architect, engineer, construction manager) typically view potential new project engagements first from the perspective of a risk manager, then from the perspective of a trade service provider. To be fair, each of these entities is providing a professional service and should be held accountable for their own actions. However, the risk equation can swing heavily in favor of the owner. An unlimited consequential damages clause will more than likely cause most construction managers to decline to participate. Conversely, a full waiver of consequential damages almost never favors the owner.
Too often, in an effort to “mitigate” their own risk, core project team members will push risk down the supply chain to the subcontractor, sub consultant or material supplier who, in many cases, is ill-equipped to handle this risk though financial or legal means. In essence, this can leave the owner unknowingly exposed.

**Key Point:** An IPD approach recognizes the risks inherent to BOTH the healthcare owner and the core project team members and seeks to share the risk equally versus shifting the risk disproportionately.

In addition to sharing the risks, the IPD model seeks to share the rewards. Following are the chief tenets of IPD Risk Allocation:

- Collaborative Risk Allocation
  - Development of risk sharing agreement early – conduct a risk allocation workshop as part of the Project Initiation Process
  - Limit risk and provide upside to maximize the potential on the project
- Mutual Waiver of Consequential Damages
- Full Waiver of Subrogation
- Mutual Indemnification and Hold Harmless
- An Insurance Strategy that Works in Favor of the Project

Recognizing the inherent risks shared by all parties and focusing on an equitable distribution of the risks and rewards is the big first step. The next step is to develop a contractual vehicle that embodies these tenets and creates performance incentives for the IPD team. This equitably drafted contract, coupled with the appropriate insurance strategy, should protect each team member and help break down the walls that have been created from decades of “risk shifting”. The contract and insurance models that are discussed in the sections below seek to outline a strategy that is based on the ideal IPD Risk Model of Risk Sharing.

**B. Incentivizing Project Team Members**

To incentivize the project team members, it is first necessary to determine what will motivate the team to accomplish the owner’s goals. A great majority of this task can be accomplished during the Project Initiation Process and the Incentives Work Session mentioned earlier (page 24). Outcomes from the session must be included in the IFOA. The goals and guidelines of the Incentive Plan should be both Strategic and Tactical:

<table>
<thead>
<tr>
<th>Strategic</th>
<th>Tactical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Involve all core team members in goal setting; build consensus and champions in core team first</td>
<td>Define communication protocol when there is an issue and sets expectations of leadership</td>
</tr>
<tr>
<td>Determine the optimal process to bring on new members to the team</td>
<td>Regularly visit the goals – score periodically and offer feedback to improve performance</td>
</tr>
<tr>
<td>Use offsite venue to gain focus, promote team building and address more issues</td>
<td>Goals should be posted and advertised</td>
</tr>
<tr>
<td></td>
<td>Team successes should be celebrated</td>
</tr>
</tbody>
</table>
C. Integrated Form of Agreements (IFOA)
As stated in the introduction to this white paper, Sutter Health utilized some of the first IFOA’s on their initial IPD projects. Those contracts have been modified and adopted by other agencies since that time. While several industry form contract documents exist in the marketplace, experts agree that an “ideal” contractual document does not. Essentially, there are three principal industry form IPD contract documents available for use:

1. Consensus DOCS 300
2. AIA A195, B195 and A295 (Transitional IPD)
3. AIA C195 (Single Purpose Entity)

Regardless of the IFOA selected, this agreement should be developed with the following guiding principles in mind:

- Trust cannot be contracted.
- The IFOA is only a tool and cannot guarantee the success of the project.
- The process of team selection and project governance to reduce the risk is critical. Again, the contract document will not change the behavior model.
- A well-crafted IFOA that creates the appropriate incentives and calls for a reasonable sharing of risk will reinforce mutual trust, whereas a poorly crafted contract will do the opposite.
- An IFOA between the owner, architect and construction manager must also include joining agreements for consultants and trade contractors, with the same cost-plus fee arrangements, shared incentive plan, shared contingency, shared liability with liability limitation, and Target Cost Approach concepts. Including joining agreements will insure the entire team is integrated.

Selecting the Appropriate IPD Agreement
An owner’s readiness to enter into an IPD arrangement drives the contracting process. Representatives from the owner’s Legal and Risk Assessment Departments should be involved in document selection. Be aware, however, that after considerable review of all available agreements, many experts in the industry are finding that the ConsensusDOCS 300 offers a better place to start than the AIA family of documents—a belief that is shared by many in the A/E/C circles. Overall, ConsensusDOCS 300 appears to do a better job of promoting collaboration and aligning the interests of the Owner, Architect and Contractor in terms of sharing risks and rewards. While this is a general opinion, many believe that it will apply to most (but not all) IPD situations. Some key observations of the ConsensusDOCS 300 are as follows:

- The overall purpose of the ConsensusDOCS 300 is to form a collaborative team that is focused on the project's best interests to maximize quality while controlling price and schedule.
Integrated Project Delivery: “The Value Proposition”
An Owner’s Guide to Implementing IPD on Healthcare Capital Projects

- The contract’s self-proclaimed objective is “to design and construct the facilities called for in the Owner’s Program, within the Project Target Cost Estimate and the Schedule developed under the Agreement.” (See 3.1 of the Consensus Docs Agreement)
- The Agreement’s goal is to align the interests of the Owner, Architect, and Contractor so that all parties share risk and rewards.
- The Agreement adequately and equitably addresses the Owner’s “Hot Button Issues” (as referenced on page 28).
- The contract adopts principles of collaboration and lean project delivery.
- This approach recognizes that each Party's success is tied directly to the success of all other members of the Collaborative Project Team and encourages and requires the Parties to organize and integrate their respective roles, responsibilities and expertise, to identify and align their respective expectations and objectives, to commit to open communications, transparent decision-making, proactive and non-adversarial interaction, problem-solving, sharing of ideas, continuous improvement in the project planning, design, and construction processes, and to share both the risks and rewards associated with achieving the Project objectives.
- The use of the ConsensusDOCS contract does not require creation of a single purpose entity (SPE) in the agreement, making the use of this document less complicated than other documents.

D. Insurance and Bonding Strategy

Insurance Coverage’s and Approaches

Project-related insurance discussions often steer owners away from developing the best solution for the project as a whole. With all of the other necessary tasks, why let project insurance get in the way? The traditional approach to insuring a project has worked for years. Why fix it?

Integrated Project Delivery is the reason. IPD requires a paradigm shift that includes insurance. Negotiated correctly, a proper insurance mechanism can be one of the driving forces for change in an IPD approach. A case study involving the negotiation of an IFOA on a $385M new hospital project clearly demonstrates that a well-developed insurance plan can be the key to breaking down the barriers between parties during contract negotiation. With a little education and the right advisors, it is indeed possible for some great leverage to come from the project’s insurance component.

The traditional insurance products used to mitigate the inherent capital project improvement risks are:
- General Liability
- Workers’ Compensation
- Excess / Umbrella Liability
- Pollution Legal Liability
- Builder’s Risk
- Professional Liability
Key Point: Be sure to consult insurance experts that are knowledgeable and experienced in IPD and Controlled Insurance Policy (CIP).

Ironically, the commercial insurance products available to all healthcare clients for use on their capital improvement projects are no different under an IPD delivery method than are available under a more traditional project approach. The difference comes in the approach to these options as risk management tools.

To illustrate this point, using the ConsensusDOCS, the Project Risk Allocation is addressed under the Collaborative Risk Allocation Section 3.8. This section specifically states its Intent under subsection 3.8.1:

3.8.1 INTENT The Purpose of the Collaborative Project Delivery approach, established by this tri-party relational contract, is to minimize the project risk of delay, conflict and increased cost typically experienced by project participants in non-integrated project delivery. By committing to collaborative principles, the Parties affirm their commitment to endeavor to reduce overall risk to the Project and to each participant.

3.8.2 This subparagraph gives the tri-party contract holders the option to allocate project risk as follows:
   3.8.2.1 Safe Harbor Decisions
   3.8.2.2 Traditional Risk Allocation

By selecting the Safe Harbor Decision, the owner elects to set the appropriate tone by allocating risk more evenly and placing faith in the team and the IPD process. This approach does not leave the owner exposed and without adequate coverage.

Key Point: When the contract is properly negotiated with the insurance strategy, the owner and core team members can be more adequately covered than with the traditional risk and insurance model.

If the owner checks the box for using the Traditional Risk Allocation, the owner is still required to limit the designer and contractor’s liability. In either the Safe Harbor or Traditional Risk Allocation mode, coordination with the professional liability and general liability coverages, deductibles and maximum coverages is required.

Under both options, the owner is likely treading in uncharted waters and could quite possibly receive some pushback from the legal and risk departments. However, since the essence of IPD is trust, the risk distribution and insurance protection must work toward sustaining the goals of the IPD Concept. Moreover, the proper strategy can and should reduce the overall risk of the entire team and foster the correct behavior.
General Liability and Workers' Compensation

In this day and age, the purchase of an insurance product to protect personal and business assets is commonplace. It is intuitive that the premium of any insurance policy must be weighed against the benefit. A risk management approach cannot simply be to over purchase insurance as a means of managing the risk. This strategy would not be financially feasible or prudent. Since a major capital project creates unique exposures to the entire project team, an owner must look at the General Liability and Workers’ Compensation policies with an open mind to the risks and the options for mitigating these risks with an eye toward risk sharing.

The graphic illustration below shows the Traditional Approach to managing General Liability (GL), Workers’ Compensation Insurance (WC), and Excess/Umbrella Liability coverage (XS). As shown, in the Traditional model, all entities carried separate coverage.

This process is flawed and often leaves latent gaps in coverage and is complicated by a system of multiple insurers and inefficiency. Under the Traditional Method, the list of conflicts with this approach is numerous. Often, these gaps are not exposed until there is a claim, and then it is too late. The owner must rely on the Construction Manager and Subcontractor community to ensure that each tier in the supply chain carries adequate coverage. However, this does not always happen appropriately or is misinterpreted along the way, resulting in exposure to the owner. Additionally, as each tier indemnifies the next, the risk is often
transferred to the lowest tier. The lowest tier most likely will be the smallest and most ill-equipped to take on this risk. Again, it is the owner who is most exposed.

In addition, each subsequent tier carries its own general liability and worker compensation policy, applies a profit on it, and then passes it to the next tier in line who adds his profit markup. The resulting duplication and stack up of markups and the obvious inefficiencies are not in the owner's best interests.

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**Key Point:** An effective option for managing risk, incentivizing safe work habits and sharing risk and rewards through insurance products can be a CIP. A CIP is a centrally Managed and Purchased Insurance Program for a Project or Project(s).

The CIP insures the following risks:
- Workers’ Compensation
- General Liability
- Excess/Umbrella Liability

This CIP, also known as a Wrap Up, can be purchased by the owner or the contractor. This must be discussed and decided very early on in the life of the project. There is a more laborious administrative requirement for the owner to purchase and manage the CIP. However, it is manageable by working with and selecting the appropriate underwriter. As the graphic below dictates, the use of a CIP simplifies the process with a single policy that covers all the players of the project team, guaranteeing the correct coverage is in place and eliminating the multi-tiered markups.

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**Controlled Insurance Policy**

- One Insurer
- Control
- Adequate Limits
- Consistent Coverage
- No Cross Litigation
- Efficiency
- Decreased Markups
- Consistent Services

Source: Rutherfoord
CIPs are most effective under the following conditions:

- Typically Used On Larger Projects (> $100 Million)
- Usually Involve Many Subcontractors
- Projects Are Labor Intensive (Payroll Vs. Materials)
- Limited Geographic Location
- Commitment To Loss Control And Safety
- Staffed To Provide Proper Claims And Risk Management

CIPs meeting the above criteria can also provide the potential of financial benefit to the project team and incentivize safe work habits and performance.

Questions to be considered when evaluating the use of a CIP:

- How does a CIP work financially?
- How is risk converted to profit?
- How can everyone’s interests be aligned in an IPD project?
  1. Budget the maximum on the CIP & Professional Insurance (Example)
     - Fixed Premium – 1.5% of the Construction Value (CV)
     - Loss Fund – 1.5% of the Construction Value (CV)
  2. Allocate deductible risk / reward to partners
  3. Delegate roles and responsibilities for risk management from the inception – warranty (All Parties)
  4. Track insurance deducts for prime contracts and subcontracts used to create funding pool

*Here’s how it works:* According to Consolidated Risk Solutions, a CIP can best be illustrated via an example of a capital project with a Construction Value (Hard Cost) of $100M or greater. Ideally, based on economies of scale on projects of this magnitude, the cost of a CIP will most likely be less than the insurance premium for general liability, workers compensation and excess liability provided through the multi-tiered Traditional Approach. Thus, by having all contractors and subcontractors identify/remove their insurance costs from their bids, the Sponsor of the program may reduce their overall costs while also enhancing their coverage by purchasing coverage/limits dedicated to their specific project (or projects).

Fortunately, these programs are typically comprised of a portion of premium that is fixed (typically ~40-50% of the maximum cost), as well as a portion that is a variable cost (typically ~50-60% of the maximum cost), subject to loss experience. As there is no guarantee that there will be any savings, it is important to note that the maximum cost premium (fixed costs + variable costs) should be carried in the total project budget to cover the claims that may occur over the performance of the work, with the potential savings being used to incentivize the Team. The Team would need to settle in advance how any savings or overages would be split. Again, this approach mitigates the risk for all parties.
In addition, another benefit of the CIP being implemented, is an increased subcontractor population of potential bidders (as inadequate insurance coverage is not a concern), as well as the Sponsor removing frictional costs associated with mark-ups, etc. by each tier of subcontractor. Lastly, the removal of insurance from the bidding process, allows for an increased participation of MBE/WBE/SBE subcontractors.

Key Point: At the conclusion of the project, potential savings from the CIP may be .5%-1.5% (CV) based on safety performance. To encourage a safe, clean project that allows for efficient work, potential CIP savings may be used as an incentive for the IPD Team.

The Professional Liability Policy – Project Specific

An important issue that needs to be addressed at the beginning of any construction project—especially an IPD project—is the professional liability arising out of project design and construction management services. Project-specific professional liability policies are negotiated as dedicated limits over a deductible and the policy term is from the beginning of design, through construction plus 3 to 10 years. The project policy automatically replaces the practice policy of each design team member because the professional policy purchased by most design firms excludes all projects insured by a project policy. A project policy may be procured by either the owner or the lead design firm, although the premium is normally paid entirely by the owner. There are a wide variety of benefits to purchasing a project professional liability program:

- It provides primary protection for the design professionals and consistency in coverage — not having to deal with inconsistencies in coverage from one design professional to another.
- Provides financial security from professional liability throughout the life of the project.
- Limit of liability that is dedicated to the specific project. Replaces the design team’s professional liability policy allowing their policy to act as excess.
- Contractor’s pollution liability (including mold liability) can be included to provide coverage for pollution conditions arising out of construction work. Defense costs are covered for third-party claims arising from the design team’s errors.
- The policy is offered on a project-specific basis for up to 10 years (the extended reporting period or ERP is included in that term) and annually for all construction (“blanket” coverage) of the named insured.
- Limits of liability can be secured up to $25 million with one single insurer.
- Single source of responsibility for claims.

Design firms do carry their own professional liability insurance policies, but it has significant limitations from the owner’s perspective, including the following:
Owners share the design firm's professional policy limit with many other firms. Professional liability policies have a single aggregate policy limit that applies to all liabilities and defense costs arising from current and past work of the insured. If there is a claim, the owner has to hope it is near the front of the line to be sure of adequate protection.

Protection is here today and gone tomorrow. Many professional liability claims arise well after project completion. An owner has to depend on a design firm to stay in business and continuously renew its insurance in order to have a policy against which to claim in the future.

The owner cannot be added as an additional insured. Most professional liability underwriters for design firms will not name the owner as an additional insured. If the owner is sued for a professional loss caused by the design firm, the indemnification clause in the owner/design firm contract may provide protection but the professional policy will not defend the owner.

Limitation of liability. Many design firms will not work without a limitation of liability equal to their fees and a waiver of consequential damages.

When facing the limitations of design firm professional liability insurance combined with typical contractual allocation of professional risk, an owner has two choices. They are:

1. Assume the professional risk that exceeds available insurance or existing contract terms.
2. Purchase a professional policy dedicated to the owner's project.

Owner's Professional Risk

Source: Ames & Gough
One of the most important advantages of purchasing a Project Specific policy is the single source of responsibility for claims. The two following graphs show the difference between the “Traditional Approach,” where the owner elects to have each party provide its own Professional Liability Insurance policy, and the “Project Specific” approach, where each party is covered under one policy dedicated solely to a specific project.
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Issues:
- Multiple Insurers
- Inadequate Limits
- Gaps in Coverage
- Cross Litigation

Solution:
- One Insurer
- Guaranteed Limits
- Consistent Coverage
- No Cross Litigation

Source: Ames & Gough
When it comes to cost, there is a simple rule of thumb: The broader the coverage, the higher the cost. Therefore, all things being equal, project professional liability, whether secured by the owner, contractor, or design professional, tends to be the most costly alternative in terms of premium. The irony is, as with nearly all types of insurance, it could end up being least costly in the event of a catastrophic occurrence. Because the project specific policy is a different product and more uniformly covers the owner, the value of the premium cannot be compared as true apples to apples comparison.

**Payment & Performance Bond for the Construction Manager**

Under ConsensusDOCS 300, the Payment and Performance Bond is an option for the contractor’s performance obligations. The election of the option to bond the Construction Manager should be based on the overall risk allocation strategy previously discussed.

Given the intent of the IPD process, is this payment and performance bond really necessary? Since there is likely a 1% premium to the construction line item for the CM to carry this bond, the answer has both risk management and financial implications. From the risk perspective, many hospital boards consider this Payment and Performance Bond an additional insurance policy in uncertain financial times. In addition, the financing vehicle may also require a Payment and Performance Bond. These are project/client specific questions that may ultimately require the CM to provide the Payment and Performance Bond. In these cases, the owner may simply check this box, the CM will carry it in its budget, and this will ultimately be carried in the overall project budget. However, the question should be asked: Can the IPD Team selection process/pre-qualification offer sufficient comfort for the owner and protect the owner from financial risk? The likely answer is yes.

**Key Point: By implementing a thorough Team Selection Process and properly negotiating an IFOA, the risk of the Construction Manager defaulting can be mitigated and is often quite low.**

In addition, nearly all the subcontractors will be required to carry their own Payment and Performance Bonds. Given that the work performed by the subcontracting team under the Construction Manager can total as much as 90% of the total construction line item, this bonding covers a great amount of the potential warranty and subcontractor default issues that could arise from your project.

The decision to move forward on the Payment and Performance Bond with the Construction Manager will have to be weighed against the pros and cons listed above and will be an individual project decision.
Case Study on Contracting & Insurance: Owensboro Medical Health System

Owensboro Medical Health System (OMHS) is a 447 bed, non-profit, sole community designated medical center located in Owensboro, KY. As the largest employer in Daviess County, OMHS is an economic engine in the community. In order to continue to offer a high standard of care to an 11 county region and have the ability to expand services, OMHS determined that it needed to build a new campus to replace their current facility.

In 2007, OMHS had incorporated Lean principles to optimize operations. As they researched potential project delivery methods for their new campus, they found that the philosophies between Lean and IPD were closely related. Thus, they determined that IPD was best suited for their culture and the ideal delivery model for their new campus.

After completing the team selection process, OMHS began to work on negotiating an Integrated Form of Agreement (IFOA). They chose a modified IFOA form, utilized previously by other healthcare organizations, and began to negotiate with each individual firm. After a year of discussions, they had not reached consensus on the contents of the IFOA by all parties. The two things stalling OMHS’s progress were:

1. An insurance package that supported and fostered the behaviors and approach in the IFOA.
2. A collaborative approach to negotiating the IFOA.

Upon this realization, OMHS went to work on developing a tailored insurance package that promoted and ensured the project rather than the individual firms having their own policies. This was a major ice breaker during the negotiations. An insurance advisor was hired to consult with OMHS and did so in a manner that was broker agnostic. This allowed OMHS to weigh the pros and cons of all options. They determined an Owner Controlled Insurance Policy (OCIP) and a Project Specific Professional Liability Policy were the best combination of products to provide coverage and incentive for all parties involved.

After the insurance program was developed, OMHS could then focus on developing a more collaborative process for negotiating the IFOA with the firms involved. It was determined that there would be two multi-day negotiation sessions with all of the firms that would be signatory to the IFOA. During these sessions, each firm was asked to have respective counsel and representatives with signing authority present. OMHS sent out the IFOA form and information on the proposed insurance program, to all parties, two weeks prior to the initial session. Thus, the stage was set.

During the first negotiation session, the insurance advisor presented the project’s insurance which proved to be a true ice breaker. By making the insurance product about the project and not the participants, it opened doors that would not typically be opened in traditional delivery models. In the IFOA, the Construction Manager was willing to participate in design activities due to the fact that the project policy would cover him. An independent policy would not have provided him with similar coverage. The project insurance product
proved to be the connective tissue that aligned all parties towards success of the project rather than protection of their own liability.

The first session identified lingering issues which were discussed and negotiated during the second session. Some of the most important discussions centered on indemnity and limitation of liability. While this is typical in traditional contract negotiation, the level of respect demonstrated but each of the team members was truly unique to the process. In essence, the IFOA’s ability to bind all parties together and mitigate traditional project risks was unprecedented. Addressing these issue early in the process, provided a much more comfortable basis for waiving protection which is often requested in traditional contracting. Selecting a robust insurance product and developing incentive language around traditional contingencies, facilitates decisions on mutual waivers of consequential damages.

The lessons learned at OMHS, in respect to contracting, were that the insurance product must be determined prior to negotiating the IFOA and that a collaborative negotiation process must be utilized. In hind sight, it would have been advantageous to meet a third time due to the issues that arose during the second negotiation session. Failure to conduct a third meeting probably wasted two months prior to final execution of the IFOA. Healthcare owners are strongly encouraged to conduct face-to-face negotiation sessions even through formal execution. Avoiding commitment is way too easy when meetings are held via email or by telephone.
VI. Tools of IPD

A. Building Information Modeling (BIM)

Building Information Modeling is the process of generating and managing computerized, multi-dimensional models linked to databases that house the design specifications, schedules and other documents related to a construction project. BIM provides all parties involved on a project with shared, up-to-date project data, subsequently allowing for a richer design process, increased budget control through predictions about the project’s construction process and fewer surprises with respect to potential design and scheduling conflicts among trades – long before ground is even broken.

**Key Point:** It is important to note that BIM is not a solution in itself, but rather an effective tool in the hands of a collaborative project delivery team.

BIM cannot prevent all unforeseen issues that arise during construction, nor can it replace the role of design and construction professionals. As with any new technology, BIM still has a long way to go, but it is gaining increasing acceptance in the field and can be a valuable tool for helping to implement IPD projects.

ConsensusDOCS realized this close connection very early on and created the ConsensusDOCS 301 BIM Addendum. Gregory Sizemore, Executive Vice President of the Construction Users Roundtable (CURT), comments, “BIM is very much in the spirit of ConsensusDOCS, helping all parties [to] work collectively and in the best interest of all involved. It is fitting that the Addendum is an early addition to the ConsensusDOCS catalog.”

“The BIM Addendum shows that there is actually less legal risk in moving from the 2-D world to the 3-D world,” said Richard Lowe of Duane Morris LLP, (a full-service law firm with more than 700 attorneys in 24 offices in the United States and internationally) who chaired both the ConsensusDOCS BIM Taskforce and...
the AGC BIM Forum Legal Subcommittee. “Introducing the ConsensusDOCS 301 BIM Addendum does much to allay these fears, by providing a balanced, fair and practical way for all in the industry to proceed with a project using BIM. Now, hesitating to act may actually pose a greater legal risk.”

BIM experts caution design teams about implementing BIM for all components of a facility. Structural and architectural systems are easily modeled and updated, while detailed MEP systems are not as easily altered. The decision of how much of the building to model for clash detection should be carefully weighed against the associated risk of time required to make user-generated changes as the building model progresses.

IPD and BIM go hand in hand. Experts agree BIM is most effective when the entire project delivery team agrees on its use; when it is incorporated as early as possible in the process; and when it’s used on the most critical components of the project. Then it can really live up to the hype.

**Key Point:** BIM is a tool and much like the tri-party contract agreement, using BIM cannot guarantee success on a project. However, it is unlikely that an IPD Project can truly be integrated without the use of this powerful tool.

**B. Consensus Project Management Software (CPMS)**

In the truest sense of collaboration, an IPD project could not be considered a true success without the use of a Consensus Project Management Software System (CPMS). Much like BIM, this centralized software is also a tool and not a solution in and of itself. As with the IFOA, no perfect software exists. However, CPMS is essential to the elimination of waste and the fostering of collaborative principles of an Integrated Team.

The multiple and duplicative efforts that are necessary for the successful completion of a project can be mind-boggling. Take the example of a simple Project Directory that houses the many team members on the project. Each major designer, sub consultant, construction manager, subcontractor, supplier, vendor, etc., has its own Project Directory. The amount of time that could be saved if this effort was centralized and streamlined would be significant. That is how CPMS can help.

**The purpose of the CPMS** is to house and share all the information in a manner that meets the best interest of the project and its team members. The CPMS can be used for the following:

- Developing and maintaining a Project Directory
- Maintaining and updating a Team Action Log
- Managing and maintaining the Project Schedule
- Updating and Reporting the Project Budget
- Storage of all project related documents
- Management of Change Order Process
There are several commercial web-based systems available on the market. Constructware and EBuilder are probably two of the better known software solutions that can be used for this purpose. It is recommended that this tool be chosen by the entire IPD Team after they have been selected. For an owner who is IPD savvy, there may already be a solution they want to see implemented on their next project. As the IPD team is developed, the goals, usage and implementation of CPMS must be established by the team.

C. Lean Construction

Lean Construction is an approach to optimize the design and construction delivery and applies the principles of Lean Production. It promotes a philosophy of delivering projects free of waste and defects. The Lean Construction Institute (LCI) is the leading think tank for Lean Construction theory and has provided thorough research on its practices and benefits.

One of the core tools in Lean Construction is the Last Planner System™. The Last Planner System™ provides a production management system for projects by creating a network of commitments and measuring the success of meeting those commitments. There are four main elements of the Last Planner System™ according to the Lean Construction Institute UK:

- **Programming Workshop:** These workshops involve all players meeting in a collaborative session to create and agree on the sequence of deliverables and tasks. This is also sometimes known as a Pull Scheduling Session.
- **Make Ready Plan:** Make Ready tasks are those that must be completed prior to moving down the line. They are absolute pre-requisites. The Make Ready Plan identifies all Make Ready tasks and tracks them to completion.
- **Production Planning:** Sets the schedule on a daily and weekly basis. Uses the sequence agreed from the Programming Workshop and tasks identified in the Make Ready.
- **Continuous Improvement:** With an agreed plan and monitoring in place there can be evaluation and performance feedback. This provides a forum for discussion of ways to improve and allows for focus on areas that are measured to have less than desirable outcomes.

Lean Construction ideals are facilitated by the IPD model. However, Lean Construction and IPD are not one in the same. Is an IPD model utilizing Lean Construction and BIM destined for more success than an IPD model without those components? The answer is unclear and it all depends on the participant’s ability to utilize the tools in the most productive manner. Often times, adoption of new tools for the sake of being different does not offer more value and can create more waste. It is recommended that each Owner evaluate the right ingredients with your selected team to create the best outcome.

**Key Point:** Lean Construction and IPD are not one in the same. IPD promotes the ideals of Lean Construction and the Owner should evaluate the extent of Lean Construction methodology that will breed successful outcomes with the integrated team.
VII. Suggestions for Success

In today’s healthcare environment, it is crucial for owners to be creative and open-minded to meet the demands of patients, physicians, workers, financial institutions and government agencies. If a capital expansion project is the solution to a critical need, then it is strongly suggested to explore an integrated and collaborative approach to delivering the project. An owner should explore all options and keep an open mind when determining the most appropriate solution. With patience and diligence, options can be found. Invest time in the initial launch and initiation phase of the project. Do not rush and miss new opportunities that exist in the delivery of healthcare capital projects. Finally, the delivery of capital projects can be fun as well as successful, and through an integrated and collaborative approach, the goals of your healthcare institution can be realized efficiently and effectively.

The most significant keys to success when utilizing an integrated project delivery method are:

1. Accept and admit the current delivery of projects is a Broken System and IPD can be a way to alleviate the symptoms that led to that.
2. One of the key questions you must ask yourself when you are considering IPD is, “Are you willing to TRUST your architect, construction manager and project advisor?” Trust must be the dominant force on the project.
3. Do not operate alone! Active, Collaborative and Continuous involvement of key stakeholders greatly influences success or failure!
4. Two Stakeholder groups that should not be ignored: The Medical Staff and the Clinical and Nursing Leadership!
5. True IPD is jumping in with both feet into a collaborative arrangement with your project team and contractually binding that team to work together.
6. The Project Initiation Process establishes how the Team will work and defines a plan of implementation. By investing 60 to 120 days of hard work, you will end up with a superior process, Team and outcome for your project!
7. An IPD approach recognizes the risks inherent to BOTH the healthcare owner and the core project team members and seeks to share the risk equally versus shifting the risk disproportionally.
8. Be sure to consult insurance experts that are knowledgeable and experienced in IPD and CIP.
9. When the contract is properly negotiated with the insurance strategy, the owner and core team members can be more adequately covered than with the traditional risk and insurance model.
10. An effective option for managing risk, incentivizing safe work habits and sharing risk and rewards through insurance products can be a Controlled Insurance Program (CIP). A CIP is a centrally managed and purchased Insurance Program for a Project or Project(s).
11. By implementing a thorough Team Selection Process and properly negotiating an IFOA, the risk of the Construction Manager defaulting can be mitigated and is often quite low.
12. It is important to note that BIM is not a solution in itself, but rather an effective tool in the hands of a collaborative project delivery team.

13. Lean Construction and IPD are not one in the same. IPD promotes the ideals of Lean Construction and the Owner should evaluate the extent of Lean Construction methodology that will breed successful outcomes with the integrated team.

Suggested additional reading on this topic:


Reference Section

I. Glossary of Terms

Big Room
A term derived from the Japanese “obeya”. In the Toyota Product Development System, the obeya is a location in which interdisciplinary team members meet to brainstorm and resolve issues on the spot.

Building Information Modeling
A Building Information Model, or BIM, utilizes cutting edge digital technology to establish a computable representation of all the physical and functional characteristics of a facility and its related project/life-cycle information, and is intended to be a repository of information for the facility owner/operator to use and maintain throughout the life-cycle of a facility.

Buyout
Buyout is the process of obtaining price commitments for all work packages in a project. There are several methods by which this can be accomplished, ranging from sealed bids to direct negotiations with pre-selected or shortlisted subcontractors or suppliers. In the IPD approach, most of the price commitments are developed through a continuous effort, with many of the subcontractors and suppliers participating in the design and refining their prices along the way. Here the explicit Buyout phase is limited to obtaining price commitments from the remaining subs and suppliers – those who weren’t involved during the design phases.

Collaboration
The process or mind-set by which all integrated parties involved in a project are willingly doing whatever it takes to work together in concert to, design, construct, and make decisions solely for the good of the project.

Construction Management at Risk
In this delivery method, the CM is hired at the beginning of the design phase to act as the project coordinator (not at risk) and general contractor (at risk). At the time the construction manager serves as constructor the construction manager assumes all of the liability and responsibility of a general contractor. Construction Managers are hired in various capacities by owners seeking continuous management of the project delivery process.

Core Team
A team that collaboratively manages IPD projects from inception to completion and with equal representation of, at a minimum, the owner, the architect, the construction manager and MEP engineers.

Cost Structure
A breakdown of the construction and project budget into detailed “cost targets”. The construction budget is developed in both a detailed component(s) based format and a CSI based format based on the project’s goals, detailed program and performance requirements. The cost targets are developed collaboratively by the
Integrated team prior to commencing the conceptualization phase of the project process. The structure provides the benchmark for the team to support continuous cost management as the project progresses to ensure that it will be completed within the targeted budget.

**Design-Build**
A delivery method that offers the owner the ability to contract with a single entity to provide both design and construction services. It is characterized by a single contract with the owner and the overlapping of design and construction services.

**Executive Management Steering Team**
A group of senior level executives from all parties including the Owner, Architect, Contractor and Engineer assembled as a key decision making body on the project. Typically they meet on a monthly basis.

**GMP**
Guaranteed Maximum Price

**Guiding Behaviors**
A list of ideals that each Team member must embrace during the project delivery process. Each Team member is required to sign the final charter in agreement with the guidelines set forth for the process.

**Governing Structure**
The strategy developed by an Executive Management Steering Team to provide direction, oversight and advice to the Core Group; guide the Team behaviors; and define the dispute resolution process.

**Integrated Form of Agreement (IFOA)**
A “relational” contract between the Core Team members that creates a system of shared risk and reward with the goal of reducing overall project risk rather than shifting it between parties.

**Integration**
The coming together of all key participants, at the beginning of a project, for the purpose of designing and constructing the project together, as a team.

**Joining Agreement**
A contractual amendment used to add a new party to an existing IFOA and include them within the risk sharing terms of the IFOA. For example, a joining agreement could be used to append key subcontractors to an IFOA previously executed by the owner, designed and the contractor.

**Launch Gap Analysis**
A thorough data and information analysis conducted by the IPD Team to identify steps that must be addressed prior to beginning the project. The outcome of this process is a Project Implementation Plan, or road map, for bridging the gaps.
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**Lean (planning, design, construction and operations)**
A production practice that considers the expenditure of resources for any goal other than the creation of value for the end customer to be wasteful, thus a target for elimination. Lean principles are being applied to the redefining of operational processes, and the planning, design and construction of healthcare facilities.

**Liability Waivers**
Contractual provisions in the IFOA that eliminates, or significantly reduces, the ability of the IPD parties to sue each other for losses related to the project. The level and comprehensiveness of liability waivers is negotiated among the Core Team members during the Project Initiation Phase.

**Project Initiation Process**
A phase during the launching of a project in which the owner establishes the governing structure for the project, selects the project team, and confirms that they want to use an IPD approach. It can last from 3-9 months depending on project size and scope.

**RFIT**
Request for integrated team

**Target Cost**
An estimate of the cost of the project that is established collaboratively by the Core Team before design is started based upon historical and benchmark data.

**Team Alignment Workshop**
A workshop held to develop the guiding behaviors as well a dispute resolution process.

**Value Proposition**
An analysis and quantified review of the institution’s strategic mission and identification of the purpose and fit of the new facility within that mission. The benefits, costs and value that the organization’s new facility can deliver to customers and other constituent groups within and outside of the organization should be considered.
II. Author Profiles

William McMahon, President & COO, KLMK Group, LLC
With 20 years of experience in the construction industry, Bill has managed and coordinated healthcare project delivery programs from design development estimates to close-out. As President and COO, his responsibilities at KLMK include management of overall operations of the company along with direct project leadership and development. Bill’s operational experience on both the contractor’s and owner’s side brings tremendous value to the relationships he forges among Project Delivery Teams, especially during the Project Launch phase, when critical decisions that impact the entire project are made.

Patrick Duke, Senior Vice President, KLMK Group, LLC
With over 13 years of facility planning and project management experience, Patrick Duke brings a wealth of knowledge and expertise to healthcare owners and clients. His technical strengths include program management, project team coordination, design management, construction administration, equipment coordination, and contract negotiation and administration. As the Senior Vice President for KLMK’s Mid-Atlantic Region, Patrick is responsible for overseeing the division and ensuring the successful implementation of the client’s vision.

Steve Higgs, Senior Vice President, KLMK Group, LLC
With over 11 years of experience in construction management, Steve has focused on contracting, scheduling, estimating, bidding and contract administration. As Senior Vice President, he serves as Regional Manager of the Southeast Region. At KLMK, he not only applies these talents to his projects, but also assists in determining the business equation involved in the development of new facilities.