



Guidance for **Specialty Consultants**



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Specialty consultants are individuals and firms whose participation in a project depends on the project scope and the extent of need for their expertise: interior designers, landscape architects, energy consultants, enclosure consultants, lighting consultants, commissioning agents, cost estimators, etc. Other types of consultants that might fall into this category include: land-use planner, energy auditor/rater, envelope consultant, building forensics expert, acoustical engineer, habitat specialist, and audio/visual consultant.

Role to Play in an Integrated Approach

Specialty consultants can advise on any aspect of the building, or sometimes help facilitate coordination through the design and construction process. Although they each have an area of specialty, in an integrated approach they also provide added value by improving connections between systems. Depending on the breadth of their role and the goals of the project, a specialty consultant may need to be included in the same risk and reward structure as the architect and contractor.

Consultants Know the Importance of Integration

Consultants often understand the importance of early collaboration and alignment. In a project team, specialists are challenged to find ways to integrate their perspective into the design and to ensure that other building features support rather than thwart the integration of their work. This is done most easily during early design.

“ I’ve been involved in meetings with the architect, owner, and contractor but it’s more productive when everyone is around the table—structural engineer, mechanical engineer, etc.”

– Andrew Dey, Andrew Dey Consulting, owner’s representative and lender’s agent.

Opportunities

Integrated design and delivery is not yet a perfect science. Project complexity—in terms of cost and technical detail—will govern the specifics of the process roadmap, the IPD contract type, and the extent to which the project can invest in helping the team overcome the learning barrier. Identifying the right approach at this stage most likely requires an independent facilitator, which may be a role the specialty consultant could learn to fill. Consultants for one specific aspect of the system, like the building enclosure or the daylighting strategy, are unlikely to be included in a shared risk and reward contract unless the project is very big and their role is deemed critical to the project’s success. However, working directly and collaboratively with all parties will make their work much easier.

Key Points:

- **Projects may need an independent expert to facilitate choosing the right approach, which could be a new role for you to fill.**
- **If you’re responsible for a specific aspect of the project, the collaborative environment will make your life easier because you can work directly with all parties, and be free to advocate for all the integrative elements that are needed to make the project successful.**

Taking the Role of Educator

As seen in steps 1 and 2 of this Guide, integrated projects are structured to deliver on the values and goals that the project team establishes. If sustainability objectives are not discussed in steps 1 and 2, the specialty consultant might have to educate the team about those benefits. Associating green features with operational cost reduction and reduced time to market may help make sustainability part of the conversation. The authors of *The Integrative Design Guide to Green Building* (7group and Bill Reed 2009) suggest that working with “nested systems,” during step 2 helps bring sustainability objectives to the surface. Examining how a project affects the primary systems within the whole of the environment—defined as habitat, water, energy, and materials—reveals the relationships between smaller and larger systems.

Key Points:

- **Integrated projects will only deliver on the values and goals that are expressed.**
- **If sustainability goals are not already a focus, consultants might have to serve in the role of educator in order to bring those goals to the surface.**

Overcoming the Learning Curve: Co-learning and Joint Decisions

Integrated design and delivery has a steep learning curve, but from existing case studies it is clear that once a team successfully completes one integrated project, that team will be much more efficient on successive projects (case study: Lion’s Gate Wastewater Treatment Plant, p. 59). It is the consultant’s role to foster a culture of collaboration and to be persistent in engaging all participants. For the team members, adjusting from being “the expert” to being a “co-learner” will be possible only in an environment of collaboration, where suggestions and openness are encouraged.

Key Points:

- **Learning how to make joint decisions is a skill.**
- **Fostering a spirit of collaboration is essential.**

Utilizing BIM

For specialty consultants like enclosure, lighting, or mechanical systems specialists, sharing BIM models brings the highest rewards, by allowing for the seamless integration of systems and ensuring that systems get installed as intended. With the development of cloud-based, open-source BIM, multiple users can access a BIM model and changes will appear for the other users in real time. For consultants facilitating an integrated approach, BIM can provide a tool for true collaboration early in design and orient a discussion about future expectations of facility management practices, which often get overlooked. Not only does the tool provide a picture of how intersecting systems will perform, it can become the basis for operations improvements or future renovations. If used for this purpose, the tool can give the design team a sense of continuity.

Key Points:

- **Sharing a model with the team allows for seamless integration of systems.**
- **If developed appropriately, BIM can reduce the effort needed to simulate building performance, therefore allowing the team to choose more rapidly among design options and achieve the most-cost-effective and greenest solutions.**
- **Use the software as a collaboration tool.**



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