INTEGRATED DESIGN PROCESS FACILITATION RESOURCE GUIDE

Sustainability Solutions Group

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INTRODUCTION

This document provides an in-depth resource for coordinators of an integrated design process, or IDP, whether they are project managers, facilitators, green building experts, or others who play a key role in process design and implementation. It draws extensively on studies into the discipline of facilitation and applies these studies to the design of high performance buildings and sustainable communities. In the following pages, team members deeply involved in facilitation work will find a comprehensive description of roles, skills, tools, and strategies to design and lead a highly successful IDP from project conception through to post-occupancy.

While it is intended to stand alone, this document was also designed to provide additional resources, ideas, and context for the IDP Facilitation Training Course and it complements two other key IDP resources developed for the BC Green Building Roundtable:

- *Building Green: Adding Value Through Process*, developed by the UBC School of Architecture and Landscape Architecture, is a comprehensive resource exploring IDP and how it can best contribute to achieving higher performing buildings.
- *Roadmap for the Integrated Design Process,* developed jointly by Busby, Perkins & Will and Stantec Consulting, is a handbook on the overall process of integrated design, addressing the questions of What does IDP include? and Why is IDP a useful strategy?

Sustainability Solutions Group (SSG) Workers Cooperative (www.sustainabilitysolutions.ca), a consultancy working with green buildings and sustainability assessments, developed this resource guide as well as the IDP Information Session and IDP Facilitation Training courses. SSG members have designed and led IDP for a wide range of projects in different contexts and have additional experience in facilitation in the non-profit, community-based, cooperative spheres. An expert team including Dr. Ray Cole from the University of British Columbia, Vivian Manasc from Manasc Isaac Architects, and Vince Verlaan from Holland Barrs Planning Group provided ongoing critical feedback as the guide and the courses were developed. A wider circle of experts from the facilitation, IDP, and adult education fields were also interviewed in order to solicit and integrate the best possible ideas into the resources that have been developed (see Appendix 6).

In recognition of the dynamic and evolving nature of IDP, SSG has

initiated an online community of practice at: http://idp.fairtrademedia.com. This space has been created to share stories of IDP and IDP facilitation, share tools and resources, have discussions on topics of interest, blog, and meet others working on developing their IDP facilitation skills. The online community of practice is self-organising and therefore relies on participants to actively co-create and share information, ideas and experiences of IDP, in order to create a useful resource.

A. BACKGROUND

"I first understood how important an integrated approach to design is when I realized one day that the most beautiful and elegant green building in the world is unsuccessful if it isn't in a great community. Or that the most beautiful city isn't successful if the environment or community around it is collapsing. Gauging the success of a project isn't about how well the technology works, it's about how healthy the living systems are, and that happens when a holistic approach to building is applied."

Bill Reed (personal communication, 2007)

This section details the context in which IDP facilitation has developed, the theory of IDP, the general practice of facilitation and the particular practice of IDP facilitation. These sections ensure the reader has a firm grasp of the vocabulary related to IDP, and the benefits and challenges of this approach. These sections will also give the reader a better understanding of the opportunities to create high performance buildings that address their specific social and ecological context.

This resource guide has been created to help practitioners find better ways to achieve high performance, innovative, and responsible projects, based on the premise that intentionally designed and facilitated integrated design processes are the best, and perhaps only way, to make this a reality. This guide has been written for those who are committed to:

- transforming the building industry to build and operate higher performing, ecologically and socially responsible, efficient, healthy, beautiful projects;
- learning about how the integrated design process works to save-money – in terms of capital, operating, and soft costs;
- interested in understanding and practicing a process that will lead to highly integrated building and operating systems; a process that works to find and create synergies;
- a process that enables a team to more fully work together, to let go of disciplines, ego, and any other baggage that may prevent them from working in the best interests of each project, in each moment; and
- learning more about the information, tools and strategies available to design, build and operate more responsible buildings and neighbourhoods.

A.1 UNDERSTANDING THE INTEGRATED DESIGN PROCESS

The *Roadmap for the Integrated Design Process* defines the integrated design process (IDP) as an approach to building design that:

"…seeks to achieve high performance on a wide variety of well-defined environmental and social goals while staying within budgetary and scheduling constraints. It relies upon a multi-disciplinary and collaborative team whose members make decisions together based on a shared vision and a holistic understanding of the project. It follows the design through the entire project life, from pre-design through occupancy and into operation" (*Roadmap*, 2007).

At its essence, IDP is a sophisticated, iterative cycle of:

- establishing vision;
- setting ambitious performance targets;
- brainstorming creative possibilities;
- identifying and implementing strategies that will meet the targets;
- evaluating performance; and
- making shifts and changes in response to evaluation results.

It builds on the interaction of individuals with different perspectives and knowledge and creates a whole project that is truly much greater than the sum of its parts. In the course of this interaction, as one perspective is explained to another, new light

Table 1: Characteristics of IDP and Conventional Design (Busby et al, 2007)

Integrated Design Process	**Conventional Design Process**
Inclusive from the outset.	Involves team members only when essential.
Front-loaded: time and energy invested early.	Less time, energy, and collaboration exhibited in early stages.
Decisions influenced by broad team.	More decisions made by fewer people.
Iterative process.	Linear process.
Whole-systems thinking.	Systems often considered in isolation.
Allows for full optimization.	Limited to constrained optimization.
Seeks synergies .	Diminished opportunity for synergies.
Life-cycle costing.	Emphasis on up-front costs.
Process continues through post-occupancy.	Typically finished when construction is complete.

Figure 1: Levels of IDP

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	Scope	Timeline	Stakeholders Involved
Building	Building specific green building strategies.	Structured IDP process.	Architect, engineers, owner, operators, facilitator, and green building expert/champion.
Community	Community-scale projects and planning processes. Sustainable/regenerative design at the individual building level.	IDP is constantly cycling, following local planning processes. Project-specific IDP would begin prior to committing to develop (rooted in community needs) and would 'end' well into the occupancy of the project.	All of the above plus stakeholders representing existing social and ecological contexts, future occupants (workers, residents), local government, and local non-profit organizations.
Industry	Evolve the application of IDP industry wide. Develop capacity of the industry to address sustainability issues more fully and deeply.	No real timeline, more of an environmental management system-like cycle, where different activities are happening at different stages in the cycle.	All of the above plus industry associations, educators, networking non-profits (like CaGBC, USGBC), and politicians.
Society	Changing values and mindsets, and fundamentally rethinking the way that design and building happens.	Long-term time horizon.	

is shed on the issues at hand (Papanek, 1995). Design questions such as How can the building minimize resource consumption? How can the building best serve the needs of its occupants and neighbours? and How can the building be designed to last, despite inevitable changes in its use? are addressed collaboratively, so that all members of a project team have the opportunity to hear and understand other points of view. IDP is a formal structure for this approach, which is applicable to the context of building design and community planning. Successfully executed, IDP can result in elegant, cost effective, context specific, and high performing projects.

Evolution of IDP

Although practitioners of IDP are beginning to converge around common ideas and theoretical definitions of IDP, the practice of IDP is a rapidly evolving and changing discipline. IDP, like "conventional" design, is practiced in many different forms, depending on factors including the skills and interests of the team involved, the project leads, the objectives of the owner, the project itself, and the context for the project. IDP can also function at different time and spatial scales, and the characteristics of "IDP" shift at these different scales.

Figure 1 explores the plural and evolving nature of IDP in practice. It describes the different temporal and spatial scales in which IDP operates, and describes certain characteristics and qualities that shape the practice of IDP for each of these scales.

IDP is a delicate balancing act between a determined, linear process, and a highly variable, flexible concept. Both this document and the *Roadmap* detail clear strategies, process points, tools, roles, and characteristics that offer shape and definition to IDP, both in theory and practice. It is, however, the act of balancing this structure with dynamism, which allows for the creativity, learning, and evolution that drives innovation.

Drivers

Conventional building design has evolved into a linear, introverted process that minimizes interaction between different disciplines; an approach rationalised by the need to reduce professional fees, and streamline the design and construction process. The following forces are driving the collaborative, multidisciplinary approach of IDP as an alternative:

- Buildings have to satisfy *multiple demands* of an economic, social, environmental, technical, and physical character. Each of these particular demands, and the way they interact, is highly complex, and requires different types of wisdom. The

multi-disciplinary design process is therefore a response to this complexity.

• *Community-based movements* are requiring buildings and development projects to be responsive to community needs and hopes and to local environmental issues, opportunities and constraints. Owners and designers need different ways to engage these stakeholders in a design process accessible to non-technical stakeholder groups.

Water: A unique synergy

Water has a unique set of emergent, combined properties that are radically different from those of its two constituent gases and would not be predicted from similar compounds. For example, it is a liquid in standard conditions and its solid form, ice, floats on its liquid form. Water dissolves more substances than any other liquid, is neither acidic or basic, and sticks together to form drops.

• Contemporary buildings have to be delivered within increasingly tight *cost and time constraints*. This demands different design approaches to seek creative synergies.

• Decreasing the negative *environmental and social impacts* of buildings is increasingly important. Additional investments in a building's design stage can not only result in significant capital, construction, and operating cost savings over its lifecycle (Hawken, Lovins and Lovins, 1999, p. 111-124), but also substantial returns from the productivity improvements of the building and increased well-being of those who use the space.

• Specifically, *climate change* is driving rapid change, including in the building sector. Greenhouse gas emissions analysis indicate that buildings contribute a significant portion of greenhouse gas emissions in North America and in many of the more affluent nations. The US Green Building Council is stepping up their energy performance requirements for Leadership in Energy and Environmental Design certifications.

The Search for Synergies

One key aspect of IDP is the search for synergies. The word 'synergy' is derived from the Greek word synergos, meaning "to work together" and is often associated with the concept of, "the whole being greater than the sum of its parts."

In the design and construction context, a synergy refers to the ability of one strategy to accomplish a combination of benefits including cost savings, reduced environmental impacts, and enhanced social benefits.

Recent work in the field of chaos theory indicates that synergies emerge from interactions amongst parts of a system, and that it is impossible to predict the nature of the synergy from its constituent parts (Corning,

1995). The implication for design is that unpredictable, yet highly effective, solutions or synergies are possible, if the design process promotes the involvement of a diversity of perspectives all working together towards a common goal.

Benefits of IDP

There are a wide range of benefits associated with the IDP design approach.

Costs: Project cost savings are a key factor in encouraging the uptake of IDP, and include the design and implementation of cost-effective and efficient solutions and the avoidance of, lengthy or delayed regulatory approvals, community opposition to the project, design errors and un-coordinated building systems.

Collaboration: IDP can help to cultivate collaboration among all players in the building process, so that the design team functions at a high level, and can effectively address challenges as they appear. IDP encourages rigorous and intentional communication on design issues, which both helps to reconcile multiple points of view on a project, and enhance the synergies between systems and design strategies.

Communication: IDP works to create a context that permits a rigorous and intentional communication on design issues. This helps to both reconcile the multiple points of view on a project, and enhance the synergies between systems and strategies. Communication process and purposes are clearly mapped out and agreed to by the team. This can help with everything from conflict resolution to enhanced project management due to improved transparency of ideas, issues, designs, process, and outcomes. A higher level of communication results in a project saving time, money, and human resources.

Improved performance: A transdisciplinary design team, when given the right environment, will bring a diversity of backgrounds perspectives, knowledge and creative ideas to the table early in a project that, when integrated fully and effectively, will result in significant improvements in building performance overall. Selecting contractors experienced in green buildings can reduce the need for change orders, as they will have more knowledge of fulfilling alternative design strategies. Including the contractors early in the process will allow them to offer practical experience to the design team and provide more accurate estimates of construction consequences and costs.

Better fit: With IDP there is increased potential that the community, local government, regulatory authorities, and other stakeholders will buy in to the project because they will be involved in shaping it. The team will have taken the time to understand the local socio-economic and ecological contexts through careful and conscientious

research and exploration as a first step in shaping the project concept, and this understanding of local context will influence the project from pre-design through to post-occupancy. Projects that are better suited to their local environments tend to be better received by the community, become part of the culture of a place, and are more ecologically suited to the location.

Business case: IDP also undertakes a thorough exploration of different design options by considering potential solutions through different lenses. The result is better design decisions and reduced risk for the owner.

Process mapping: working to design the project process through to post-occupancy can help to clarify timeline and scope issues up front in the project. This can make the process as streamlined and efficient as possible, and provides certainty to both the owner and the consultant team about the aim of the project.

As to the question, "When does IDP start and stop?" ideally IDP never stops. It leaves a legacy in people and within organizations that does not stop. It just continues to permeate throughout.

Barbara Batshalom (personal communication, 2007)

Marketing and communication: integrated design of high performance buildings and sustainable communities is a key element of such projects. Projects that are pushing the limits on environmental performance and on involving the community receive free positive publicity.

Risk mitigation: IDP forces in-depth discussions about issues early on in a project that may not typically be fully addressed at all, or not until much later on. An example of this might be the exploration of all coolants used in a project to make sure that they are not only compliant with the Montreal Protocol now (the international agreement regarding ozone depleting chemicals), but that the coolants selected will also be compliant with the Protocol for 10 or 20 years out, or perhaps even for the anticipated design life for the project.

Principles of IDP

The following is a list of principles that are characteristic of successful IDP, which the project team can use to help frame their approach to a project.

- *Vision and goal setting*: establishing an ambitious vision and clearly articulating performance targets will both orient the team throughout the project, and provide a touchstone from pre-design through to post-occupancy to help the team stay on track and motivated.

- *Iterative:* The design develops incrementally, allowing the team to take advantage of what was learned during earlier versions of the design. At each iteration, modifications are made, new aspects are added and the team evaluates their progress against their vision and goals.

• *Flexible:* IDP needs to be flexible enough to respond to the needs, interests and aspirations of a team; to the specific project context; and to the collective potential of the project, team, and place at each stage in the process.

• *Collaborative approach:* IDP is based on collaboration, meaning that all team members bring their skills and knowledge to the question at hand in a manner that empowers the team. IDP is characterized by a sense of inclusion – meaning that all team members' and other stakeholders' views are carefully considered and integrated by the full team, when this serves the best interests of the project. Participants will feel free to share their ideas and concerns in a safe space, where ideas and not people are discussed. From the safe space, a culture of open-mindedness and creativity will develop.

• *Ongoing learning*: Ongoing learning is a critical component of IDP. As team members learn from each other, they may see problems in a new light and adapt their approach accordingly. The teams' approach to IDP itself will also learn and change through the duration of the project.

• *Place-based:* Early in a project, sometimes even before the decision has been made about whether or not a 'project' is even needed, a thoughtful, respectful exploration of the local context is undertaken by team members who are versed in the socio-economic and ecological history of, and possibilities for, a particular community and site. This analysis then informs project design and development.

• *Transdisciplinary*: Transdisciplinary work happens between disciplines, across disciplines, and ultimately beyond each individual discipline – it is the heart of integration, and is inherently complex.

• *Multistakeholder engagement:* A 'stakeholder' is a person who can affect, or is affected by, the outcome of a particular activity. The engagement of stakeholders in IDP will vary depending on the specific design challenge or project context and vision.

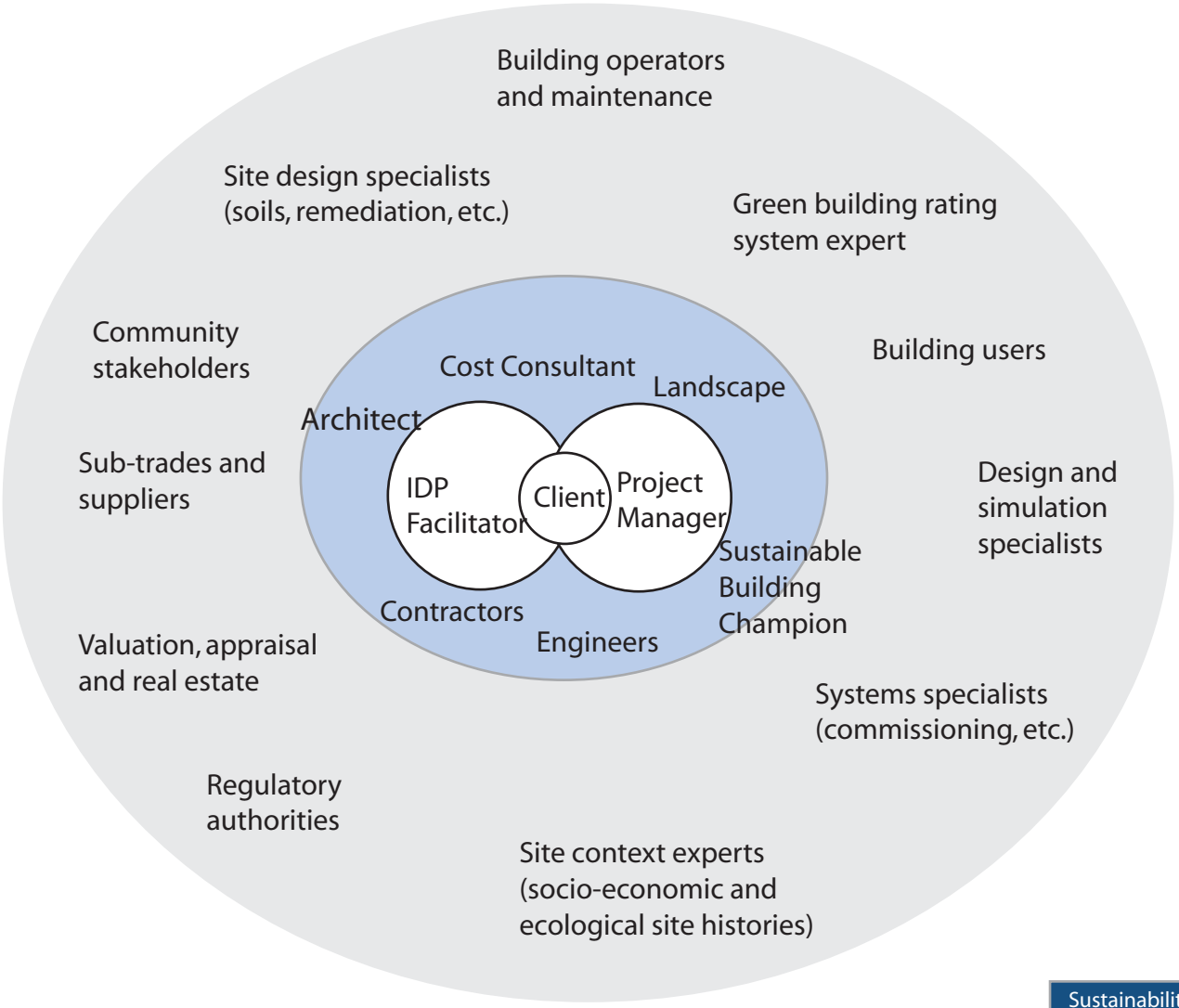
• *Process and outcome driven:* Integrated design is equally about process and about content, or outcomes. A team collaborates to set clear, far reaching yet achievable objectives for the project and works toward these objectives or outcomes together. Being process driven requires careful team formation and team building, expert facilitation, idea generation and decision-making tools, effective and open communication, and adaptive project management.

Organization

An IDP brings together a team of stakeholders and experts to address a common design

question or challenge (Figure 2). At the core of the team is the client, with the facilitator and project manager, highlighting the client as the ultimate decision-maker. The client is supported by the project manager and the IDP facilitator. This group maps the integrated design process, works the rest of the team through creative sessions and decision-making cycles, and ensures that the work is meeting the objectives. The core consulting team is the next level, including key team members who will work together closely throughout the process. The outer level includes consultants who contribute to the team regarding specific technical tasks. Clear decision-making responsibilities are assigned to each of the team members.

Figure 2: IDP Organizational Chart



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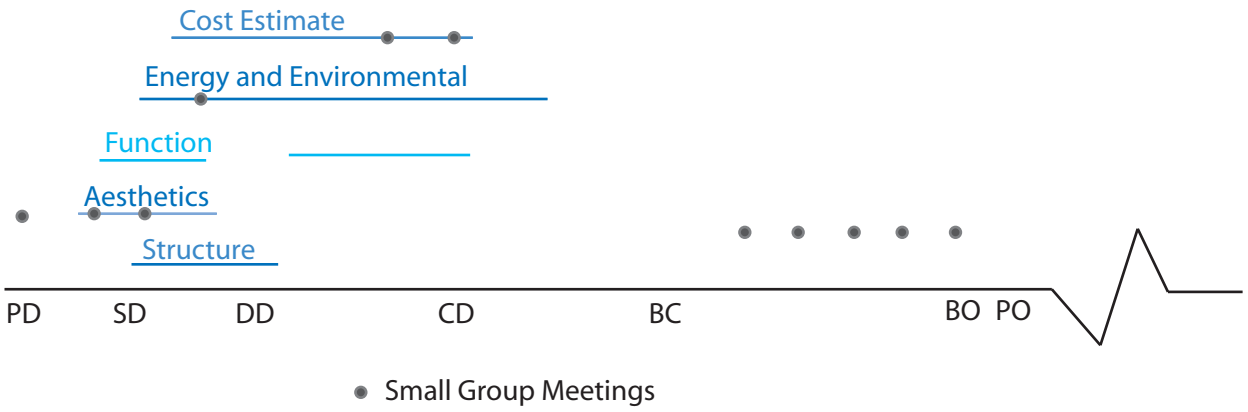
IDP Phases

Figures 3 and 4 illustrate the difference between more conventional, linear design processes and integrated design. Figure 3 shows a typical conventional design process in which building systems are often considered either one after another, or in parallel without vertical communication. For example, an architect designs the concept for the building and separately, structural

Figure 3: Linear Design Process (adapted from Integrative Design Collective)



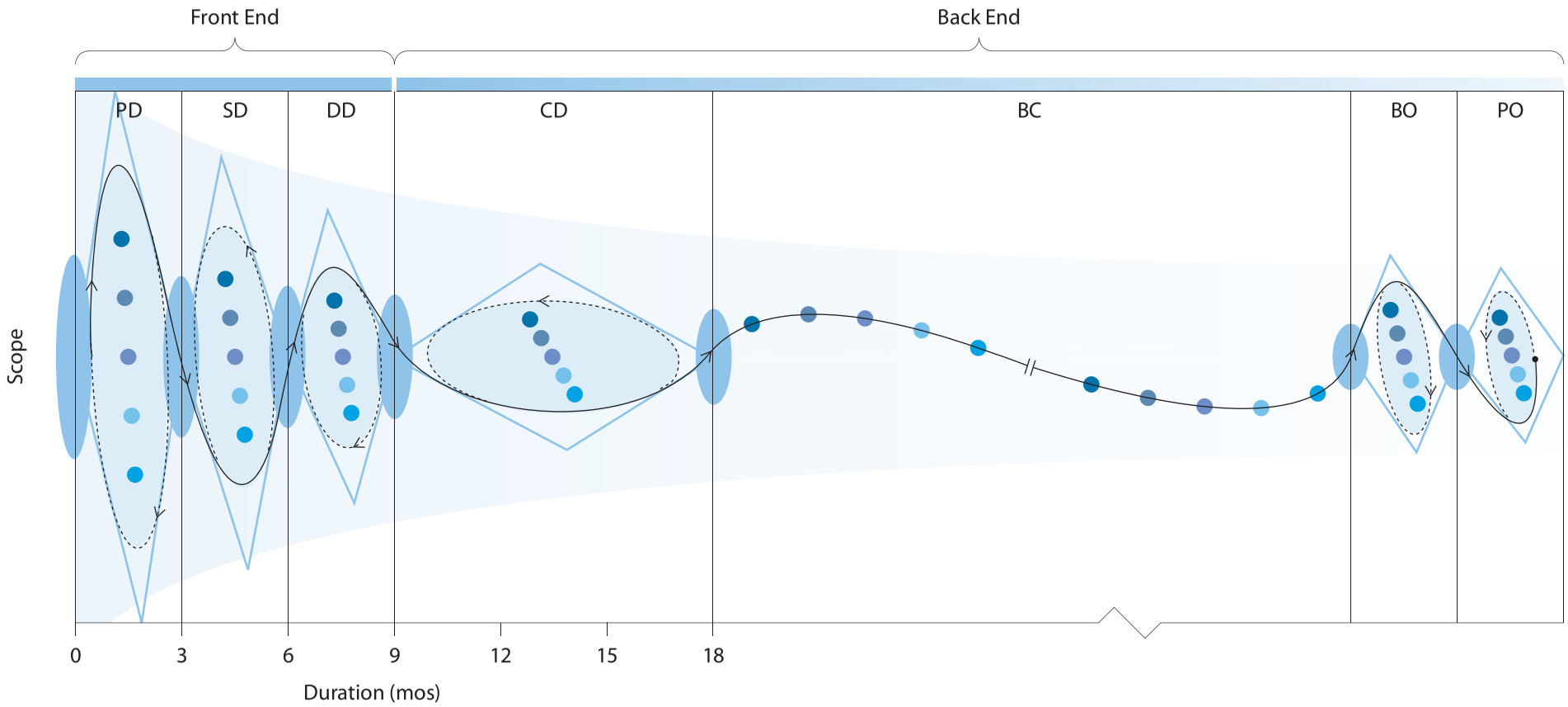
engineers then ensure the building stands up.

Figure 4 describes the integrated design process. The vertical axis is the scope of the issues considered. The horizontal axis is time, or project duration, and is an approximation of the duration of different phases in a project. The IDP can extend beyond this figure on either side. On the left side of the page are the discussions and decisions that happen prior to a project being conceptualized, and extending off the right side of the page, are the operations, maintenance, and community relationship building that follow the occupancy of a building.

The vertical lines that punctuate the figure at certain points are the transitions between different phases in the project: for example, from pre-design to schematic design. The long blue ovals that overlap with these lines are team workshops, and the smaller circles in between are focused workshops on key issues. The solid and dotted black lines indicated how the process moves forward and iterates as necessary. Finally, the wide blue band and the blue diamonds show a narrowing of scope as the project moves forward in time; this shows how the team moves through iterations of exploration of ideas and decision-making.

Table 2, a modified version of a similar table in the *Roadmap,* describes in detail the phases in Figure 4, as well as those to the left (At the Outset) and right (Post-post Occupancy).

Figure 4: IDP Design Process



Project Constraints

Exploratory Design Process

All Team Workshop

Focused Team Workshops (water, energy, materials, etc)

Iterative Process

Additional Iterations as necessary

PD	Pre-design
SD	Schematic Design
DD	Design Development
CD	Construction Documents
BC	Bidding, Construction, Commissioning
BO	Building Operation (start up)
PO	Post-Occupancy (long term)

Image Credit: Bill Reed of Integrative Design Collaborative, Doug Pierce of Perkins+Will and Busby Perkins+Will

Table 2: Phases of IDP (Adapted from the Roadmap, 2007)

Phase	Description
At Outset	This phase is typically beyond the scope of a standard building project. At this stage the community of stakeholders assesses the need for the project. "Do we need this building/project at all?" If a need is articulated, explore potential sites and high-level building or community-scale programming work can happen. Ecological and social contexts are researched and a wider circle of stakeholders, including community members, municipal representatives, neighbours, potential future users/occupants of the project, and local advocacy organizations are involved.
1. Pre-design	Goals, core objectives, and direction of the project are established through a visioning session. Background research on socio-economic and ecological site history, opportunities and constraints is completed. A decision-making process is agreed to/articulated and communicated and a timeline is identified.
2. Schematic Design	Experts from all disciplines work together to analyze the unique opportunities and constraints of the building site, and explore synergies between disciplines and with neighbouring sites. An initial schematic design concept is created, and issue-specific meetings on water, energy, health, community-building take place.
3. Design Development	A schematic design concept is selected and approved by the client. Architectural, mechanical and electrical systems are assessed for expected performance and synergies by relevant experts. The technical and financial feasibility of different options is considered and small group sessions link back to the larger group.
4. Construction Documentation	Construction Documents (CDs) based on approved Design Development documents, as well as final calculations and specifications are prepared. High-performance building objectives are fully integrated into the construction process through the CDs.
5. Bidding, Construction and Commissioning	Qualified contractors are chosen and communication procedures are established, A training program for contractors and the trades is put into place. Ground rules and the team charter is revisited to reflect the perspective of the construction team. Individual firms ensure that design related goals and objectives are transferred to those responsible for carrying out working drawings and shop drawings. Commissioning work continues through to start up and occupancy. Successes are celebrated and the process is debriefed.
6. Building Operation	The design team's knowledge of the building is properly transferred to the building's new stewards: the owner, occupants, and operations staff.
7. Post-Occupancy	The post construction portions of the process provide feedback loops that facilitate continuous optimization of the building's performance.
Post Post-Occupancy	Case studies and stories about the project are shared with the larger green building and sustainable community industries in order to facilitate industry-wide learning and transformation. Ongoing evaluation, assessment and reporting of project successes and challenges continues and the results are shared publicly. Changes to planning processes, governance systems, zoning, regulation, and other neighbourhood and community-scale systems are proposed. Ongoing work on environmentally and socially responsible living and working behaviours occurs.

Synopsis of Interviews: Facilitation Role

Interviewees were asked the question, "What role do you think that facilitation plays in IDP?" A summary of their responses follows:

- *The facilitation role is a key part of building a functioning and effective group process.*
- *The group needs to clearly understand (a) how facilitation is integrated in the project, (b) the role of the facilitator in delivering this process, and (c) the role of all other team members in ensuring effective facilitation.*
- *Experience will be a facilitator's greatest asset due to the complexity of human systems.*
- *A facilitator has a suite of tools and strategies available that she or he will draw from in different situations to best suit a particular context.*
- *There is no formula for facilitating an effective design charrette, but there are systems and methodologies that facilitators can use to formulate their approach.*
- *The role of the facilitator is multifold, including team building, understanding personalities, understanding communication styles, and empowering individuals and the group.*

A.2 UNDERSTANDING FACILITATION

History

Facilitation helps groups of people work together in an effective manner to address and solve difficult and complex problems; everyone learns and everyone contributes to an outcome that no one person could have achieved alone. The word facilitation comes from middle French *facile* and the Latin *facilis* meaning, "easy to do" and "of persons courteous;" at its essence, facilitation is the art of making interactions between people easy. By harnessing these positive interactions to a shared task, facilitation leads to productivity and better outcomes.

In the late 19th century, western society was focused on delivering efficiency through structure and hierarchy. Major Henry Robert published his first Robert's Rules of Orders in the USA in 1876; a system that made individual participation in a decision-making process rigid and formulaic. During the same period, a Quaker social scientist and social worker, Mary Parker Follett, recognized the significance of a different type of group decision-making and action, which offered an alternative to Robert's Rules. Folett argued that groups continually influence constituent group members, and therefore group members should have the capacity to control their own activities in a self-organising fashion; a process that required facilitation. Quakers were simultaneously using facilitation methods during religious meetings and this became one of the early sources of facilitation practice. Other threads included (Hogan, 2002):

- The growth of participatory approaches to management in organizations and companies;
- A shift in formal education from an instructive, lecture approach to experiential and group learning;
- Traditional cultures' use of collective decision-making;
- A swing in the South from top-down development projects to facilitated community problem-solving;
- New ways of thinking about how power is used and shared in women's groups and in the peace movement;
- The development of the fields of conflict resolution and decision-making; and
- Recognition by government officials that they must involve the public in decision-making processes.

Basics of Facilitation

Facilitation is a rapidly evolving field, working in a wide range of contexts, and as such, can take many different forms. The essential aim of facilitation, however, is to use process to empower a group.

Kaner (2007) says the facilitator's job is to support everyone to do their best thinking by encouraging full participation, promoting mutual understanding, and cultivating shared responsibility.

Encouraging full participation is, first and foremost, related to how safe the space is. Are all participants treated with respect? Are ideas carefully considered, irrespective of who they come from?

Prior to engaging in a process of dialogue, as part of laying the groundwork, the facilitator needs to ensure that all participants have a sense of the purpose, responsibilities, activities, outputs, timing, and roles.

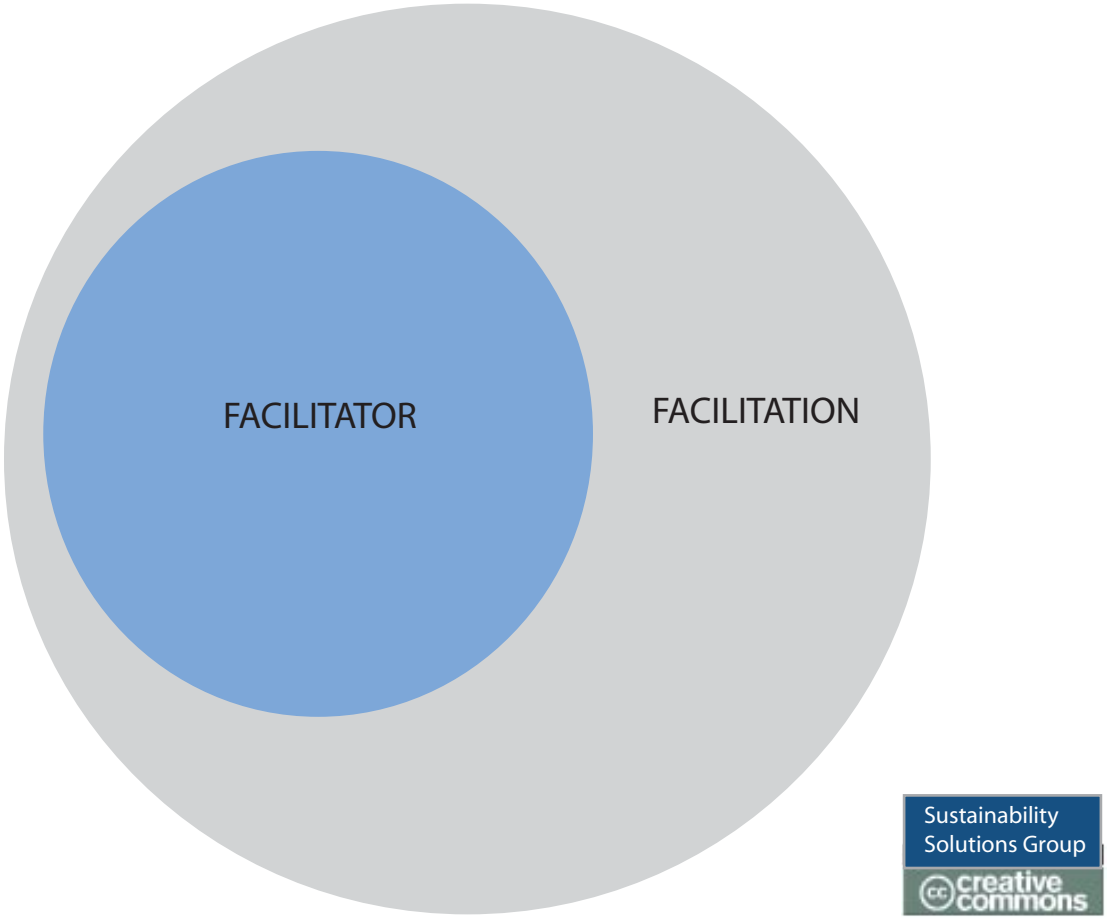
This clarity must be maintained in dialogue, requiring a range of skills from the facilitator (Griggs, 2004):

- Accurately listening to, and remembering, behaviour and conversations;
- Communicating clearly with members of the group;
- Identifying similarities and differences among statements;
- Understanding multiple perspectives;
- Analyzing and synthesizing issues;
- Identifying and surfacing assumptions;
- Diagnosing and intervening on effective and ineffective behaviour;
- Being a model of effective behaviour
- Providing feedback without triggering defensive reactions;
- Accepting feedback without reacting defensively;
- Monitoring and changing their own behaviour based on acquired learning;
- Developing the trust of the group;
- Providing support and encouragement; and
- Having patience.

The facilitation role is a shared responsibility, carried both by the facilitator and by participants (Figure 5). Self-facilitation implies actively engaging in the process in a manner that respects other peo-

ple's ideas, listening carefully, and seeking clarification when required. The facilitator takes an active role. To concretely illustrate this role, aspects are illustrated in Figure 5.

Figure 5: Facilitation Role



There are a number of key ethical dilemmas that arise in facilitation. In the development of its Code of Ethics, the International Association of Facilitators identified key ethical issues that arise in the course of practice (Table 3).

Table 3: Ethical Considerations (adpated from Hunter and Thorpe, 2005)

Issue	Facilitation Approach
Process and Content	A facilitator is a process guide: the focus is on process, not content, and on guiding, not imposing.
Neutral or Impartial	While facilitators are impartial with regard to potential outcomes, they are not impartial with respect to process issues; facilitators are process leaders and advocates, exercising process expertise to help groups achieve their purpose.
Results and Relationships	Facilitators need to balance building relationships with achieving results. Encouraging full participation and good relationships will strengthen trust and understanding and minimize feelings of lack of inclusion and rejection. As a result, decisions are made more easily and results tend to flow.
Trust	The effectiveness of facilitation is based on personal integrity, and the trust developed between facilitators and those with whom they work. Facilitators therefore recognize the importance of defining, and making known, the values and ethical principles that guide their actions.
Facilitator Values	Facilitators believe in the inherent value of both individual wisdom, and the collective wisdom of the group. They strive to help the group make the best use of the contributions of each of its members.
The Group as Client	While the contractual arrangement for facilitation is with a particular individual or organization, some facilitators believe they are professionally responsible to the group they are facilitating, not the client.
Consensus Decision-making	Facilitators believe that collaborative and cooperative interaction builds consensus and produces meaningful outcomes. However, consensus decision-making is one of many decision-making processes, and other systems may be appropriate, according to the needs of the group.
Group Autonomy	Facilitators respect the culture, rights, and autonomy of the group. They seek the group's conscious agreement to the process and commitment to participate.
Handling Conflict of Interest	Prior to agreeing to work with clients, they discuss openly and honestly any possible conflict of interest, personal bias, prior knowledge of the organization or any other matter which may be perceived as preventing them from working effectively in the best interests of all group members.

A.3 IDP FACILITATION

IDP is both a process and an outcome-driven design methodology. IDP works to achieve cost effective, highly efficient, and socially and ecologically responsible design solutions. It is driven by these, and other high performance building and sustainable community aims as defined uniquely by each project and team. IDP is also a social and human process, and all such processes need thoughtful design, attention to group dynamics, focus on team building, alignment of vision and objectives, and ongoing refinement, adjustment, and rethinking. Thus, the ability of a project to achieve its green building and sustainable community objectives is highly dependent on the effectiveness of the dialogue and collaboration between team members. As the person responsible for supporting this dialogue as it starts and builds, the facilitator plays a key role. In every IDP, this dialogue will be different, according to the experience of the team with IDP, the experience of a facilitator and their particular methodologies of choice, the context for the project (type, location, program), the recognition of, and support for, a facilitated process by the client, and other factors.

In general, IDP facilitation is a subset of the field of facilitation, drawing on relevant theories, tools, and techniques. The research and interviews for this guide, however, revealed that the approach to IDP facilitation in practice itself varies considerably. This variation is described in a spectrum (Figure 6) that spans from a focus on process, to a 'lean and mean' IDP, which is focused more fully on outcomes, and oriented to ensuring that specific information is delivered at pre-determined stages. Note that this is a spectrum, not a black and white representation, and that projects may be on one end of the spectrum for facilitation and on the other for who is involved in process design. A team may also shift their approach from one end of the spectrum to the other as the project progresses.

Figure 6: Spectrum of IDP Facilitation

Process-Focused Design Culture	↔	Outcome-Focused Design Culture
Many people involved.	↔	Few people involved.
Constantly evolving process.	↔	Static process.
Uncertainty in direction and outcome.	↔	Certainty in direction and outcome.
Shared facilitation.	↔	Expert facilitation.
Qualitative evaluation.	↔	Quantitative evaluation.

Process-Focused Design Culture

Designed by many: Everyone interested can participate in discovering what, how, and why the group wants to move forward in the direction that they choose. The team works together to fully engage their members, to explore possible courses of action and to build community.

Constantly evolving: The team seeks the places where its energy and interests lie, and actively moves in that direction. As team members come and go, their process adapts and evolves accordingly.

Uncertainty: Directions, activities, timelines and budgets change often, which can be challenging for projects that need to produce a very clear outcome or product – like a building – at the end.

Shared facilitation: The responsibility of facilitation is shared amongst all members of the group. The role of the meeting's facilitator is transferred between the members, and different people are tasked with different between-meeting responsibilities and activities, to ensure that work happens and outcomes are achieved. All members are supported and encouraged to become better facilitators and better participants in a facilitated process, throughout every activity of the group. Where process is the main driver of the group's activities, this shared facilitation role is essential, as it ensures that all members of the group are actively stewarding the process together.

Outcome-focused Design Culture

Designed by few: Specific people have facilitation and project management responsibilities. The process design is driven by the outcomes, scheduling demands, budget, focused participation of team members at each stage, and is lead by only a few team members. Process design in this approach is typically done outside of team meetings.

Static: The process design is typically developed and agreed on at the

Synopsis of Interviews: IDP Design

In the interviews conducted in the development of this resource guide, interviewees were asked, 'What are important considerations with regard to IDP?' Their responses indicated a diversity of perspectives, below is a summary:

- *IDP is sometimes designed, both collaboratively and transparently, with the whole team; other times it is done by the person with the primary facilitation role, and that person guides the team throughout the process. There is a multiplicity of approaches, all of which may be more or less appropriate in different contexts.*
- *There is a need to have team-building, understanding personalities, and understanding communication styles as part of process early on.*
- *Discussion about, and alignment of, values early in the process is crucial.*
- *Understanding that aligning values, exposing power dynamics, developing shared language, letting go of ego, and understanding fears, are all key elements of team building.*
- *There is a difference in approach between facilitating creative thinking and facilitating decision-making.*
- *The process needs to detail what decisions can be made where, so that everyone has clear expectations.*

beginning of a project, and then persists with little adaptation and evolution through the project delivery. Sometimes the whole project process design remains static and is used as an outline, with the more detailed grain of design – the meeting to meeting work –detailed out as the project progresses.

Certainty: Having a process mapped out at the beginning of a project can give a team greater certainty about what their involvement will be, what the schedule is, what the resources required of them will be, who they will be interacting with and when, and how all of the different parts of the project come together. This certainty can enable a team to more fully 'trust the process' as they can see where they have been, where they currently are, and where they are going.

Our role as designers is, not only to understand building design, but begin to acknowledge that we are interacting within a living system and we are responsible for the health of that living system otherwise we will never achieve sustainability.

Bill Reed (personal communication, 2007)

Expert facilitator: There is a clear distinction between process leads (facilitator) and content leads (other team members) throughout the project. The facilitation job is to hold the group, client and community to the process in order to meet the desired outcomes on the planned schedule and budget.

Where a particular IDP falls on this spectrum is dependent on its particular context, including factors such as budget, team philosophy and experience, facilitation and project management approach, location, and building type. It is important to note that a project may change over time, or mix and match. At the beginning of a project a more process-oriented design culture may be beneficial to engage stakeholders fully, build buy-in, and to fully explore options for design and construction. Once a project has been conceptualized and the team moves into design development, the culture may shift to be more outcome-oriented in order to have more certainty around outcomes. This guide aims to support projects across this spectrum, recognizing that all green and sustainable projects are vitally important to changing the way buildings are designed, built and operated. A flexible set of strategies is needed to meet the unique demands of each project.

A second important consideration of IDP facilitation is the fact that an IDP typically consists of multiple meetings over a period of one or more years, with participants that vary from meeting to meeting. The facilitator must therefore operate at two discrete but connected levels, designing an overall process (Figure 7) as well as each of the individual meetings (Figure 8). These two levels of IDP require distinct process design strategies, facilitation strategies, and planning and are

described in detail in the next section as the first two of the facilitator's responsibilities.

IDP Facilitation Responsibilities

The responsibilities that have been distilled as essential for IDP facilitation include process design, process management, guiding content, moderating group dynamics, advocating sustainable design and evaluation. Recalling the distinction between facilitation, and the role of the facilitator from Figure 5, Figure 7 illustrates different ways that these facilitation responsibilities can be shared by the project team.

Figure 7: Facilitation Responsibilities

Responsibilities	Project Manager	IDP Facilitator	Other Core Team Members
1. Process Design			
2. Process Management			
3. Guiding Content			
4. Moderating Group Dynamics			
5. Advocating Sustainable Design			
6. Evaluation			

Key

Yes	
Maybe	
Not likely	

Sustainability Solutions Group

creative commons

Each of the responsibilities are outlined in section B of this document with corresponding tools that can be employed by the IDP facilitator.

Summary of IDP Facilitation Responsibilities

1. Process design. This is a high level responsibility that guides IDP through all phases of the project. The facilitator works with the project manager and other team members to define the projects' phases, and develop a timeline, outcomes or milestones at different phases, meeting types and functions, and roles and responsibilities of each team member throughout the process.

2. Process Management. The facilitator may, in cooperation with the project manager, be responsible for stewarding the design process including ensuring that information, ideas and resources are flowing when required, actively and meaningfully engaging participants, ensuring that meetings are happening, and that schedules and budget objectives are met.

3. Guiding Content. The facilitator must strike a balance between keeping team members on track with the objectives and agenda, and allowing sufficient space for creativity. Through a careful selection and application of tools and strategies that facilitator can draw on the range of expertise represented by the team.

4. Moderating Group Dynamics. The facilitator works with the group to create a safe space in which all participants feel comfortable sharing their ideas and opinions. The facilitator will ensure the quiet voices have a chance to be heard and help the group address conflicts.

5. Advocating Sustainable Design. In practice, IDP facilitators are frequently experts in green or sustainable building and additionally assume the role of advocate in the IDP. This advocate role can draw the team's attention to the big picture, challenge them to aim for more ambitious performance targets, relate stories and examples and ask challenging questions thus instilling enthusiasm and excitement in the process. This role can be in conflict with the role of the facilitator, who in general practice strives to be content neutral and focuses on being the steward of the process.

6. Evaluation. The facilitator is responsible for an evaluation process that includes assessing if the team has met the projects' objectives or desired outcomes and evaluation of the facilitation process itself.

B. IDP FACILITATION RESPONSIBILITIES AND TOOLS

The art and practice of the facilitation of IDP is about continually stewarding the process to meet the best interests of the group and the project at each point in time. It is thus an ongoing, constant, and vital role and responsibility on an IDP project team.

The ability of a project to achieve its green building and sustainable community objectives is highly dependent on the effectiveness of the dialogue and collaboration between the team members. Facilitation helps groups of people work powerfully together to address and solve tough problems, with everyone learning and everyone contributing to an outcome that no one person could have done alone.

Facilitation describes the process that a team will use to think together, contribute to a process, and create meaning over the course of a whole project as well as within a single event, like a charrette or a meeting. Thus, facilitation needs to be thought of not just around events but around the whole cycle of IDP.

A facilitated participatory process is different from a conventional group process. A participatory IDP involves a wider range of stakeholders than a traditional design process, based on the premise that the stakeholders offer valuable perspectives, diversity leads to creativity and innovation, and that collective wisdom has a high degree of resonance and insight.

However, inviting a diverse group of people to a process does not ensure their participation. This is where the skills of a facilitator are very useful. There are significant responsibilities for the facilitator in the pre-planning and planning stages of the IDP (or for a single event), during an event or charrette itself, and in follow-up from each stage to provide connection and continuity through the whole process. For facilitation to be successful, it needs to be a shared responsibility with everyone aware of the purpose and of individual and group dynamics.

This section works through each of the six IDP facilitation responsibilities in some detail, focusing on strategies and approaches that can be used by the facilitator to keep the team working effectively together. Tools (described in more detail in Appendix 5) are referenced in side bars throughout.

B.1 DESIGNING AN INTEGRATED DESIGN PROCESS

Understanding Process Design

Process design is the high level responsibility that guides IDP from pre-design through to post-occupancy and beyond. The facilitator works with the project manager and other team members to define the phases for the project, including a timeline, outcomes, meeting types, and roles and responsibilities of stakeholders in each phase.

One of the first responsibilities of the facilitator and the team in process design is to discuss and clearly articulate the vision, goals and objectives for the project so that the participants are aligned in their collective aspirations. The IDP is then designed to meet these collective aspirations. As Griggs (2004) suggests, "Without this agreement, the group will lack the basic elements of effective group behaviour, and contests may erupt at any stage over what is being discussed, when it is being discussed and/or how it is being discussed. Furthermore, without this consent, a facilitator is disempowered and lacks a clear mandate to guide the group toward shared objectives along an agreed pathway." Griggs (2004) suggests three questions, to be asked in this order, to build agreement about the process that will be undertaken:

- An open ended question: Does anyone have comments or questions about the objectives of the discussion?
- A focused question: Can everyone see where the issues that are important to them will fit into this agenda?
- Negative framing: Is anyone uncomfortable with this question?

The first step in designing an IDP is to gather all the relevant background information. Ideally the facilitator is brought into the project at the outset, but if this isn't the case, the first step is to become oriented to the project, and to surface assumptions and decisions that the management team and the core design team may have made. This process involves interviews with the clients and any other engaged parties. Key questions include:

- What value, goal and objective setting work needs to be done?
- What level of green or sustainable design is the project working toward?
- What is the design approach or design culture advocated by the client? By other design team members?

Facilitation requires ego, confidence, and humility in equal measure; if you can balance these things as you facilitate, you are modeling the way others in the group process should act as well - giving what you are good at, staying open to what others can share, acting purposefully as a group, working together in co-creation, ensuring the group reaches its goals, reflecting on what has been done and learned in order to deepen the understanding, committing to further action.

Vince Verlaan (personal communication, 2007)

- Have members of the design team already been selected? If so, what values, and what approach or culture, have they introduced to the design process? What experience does the team have with IDP? With green or sustainable design?
- Is the established design culture of the project more process-focused or outcome-focused?"

Budgeting and scheduling questions include:

- What design phase is the project currently in?
- When does the project need to be completed? When will it be occupied?
- What are the time frames for each phase of the design process for the project?
- Is there flexibility in the schedule and budget?
- What are the key milestones for the project from the perspective of all team members (not just designers and contractors)?
- When will whole team meetings occur in each design phase? When will core team meetings occur? When will topic-specific meetings occur? What special meetings or design exercises should be considered?
- Where are the key decision-making points?
- What is the budget for the project? How will this influence ID process design?
- For community scale projects, what schedule issues, beyond the typical project design (eg. before pre-design and after post-occupancy) and construction schedule need to be considered? How will the IDP be designed to address these pre-design and post-occupancy issues?

TOOLS: Designing an IDP (See Appendix 5)
1. Five Ps of Meeting Preparation
2. Building Great Agendas
3. Meeting Co-Design
4. Dynamic Facilitation
5. Facilitation 101
6. Open Space Technology
7. Time Share Agenda Creation
8. SMART

Process Design Architecture

Designing an overall process (Figure 8) involves a series of meetings (each diamond in the diagram represents a meeting), each with a distinct set of objectives. The facilitator will aim to develop these objectives in a meeting with the team, so that there is a broad understanding of who does what, and what needs to be done when.

Figure 9 illustrates the flow of an IDP meeting (adapted from Kaner, 2007). A question is posed, ideas are generated, small groups address key themes, potential courses of action are proposed, and a strategy and action plan are developed. The process is initially intended

Figure 8: IDP Process

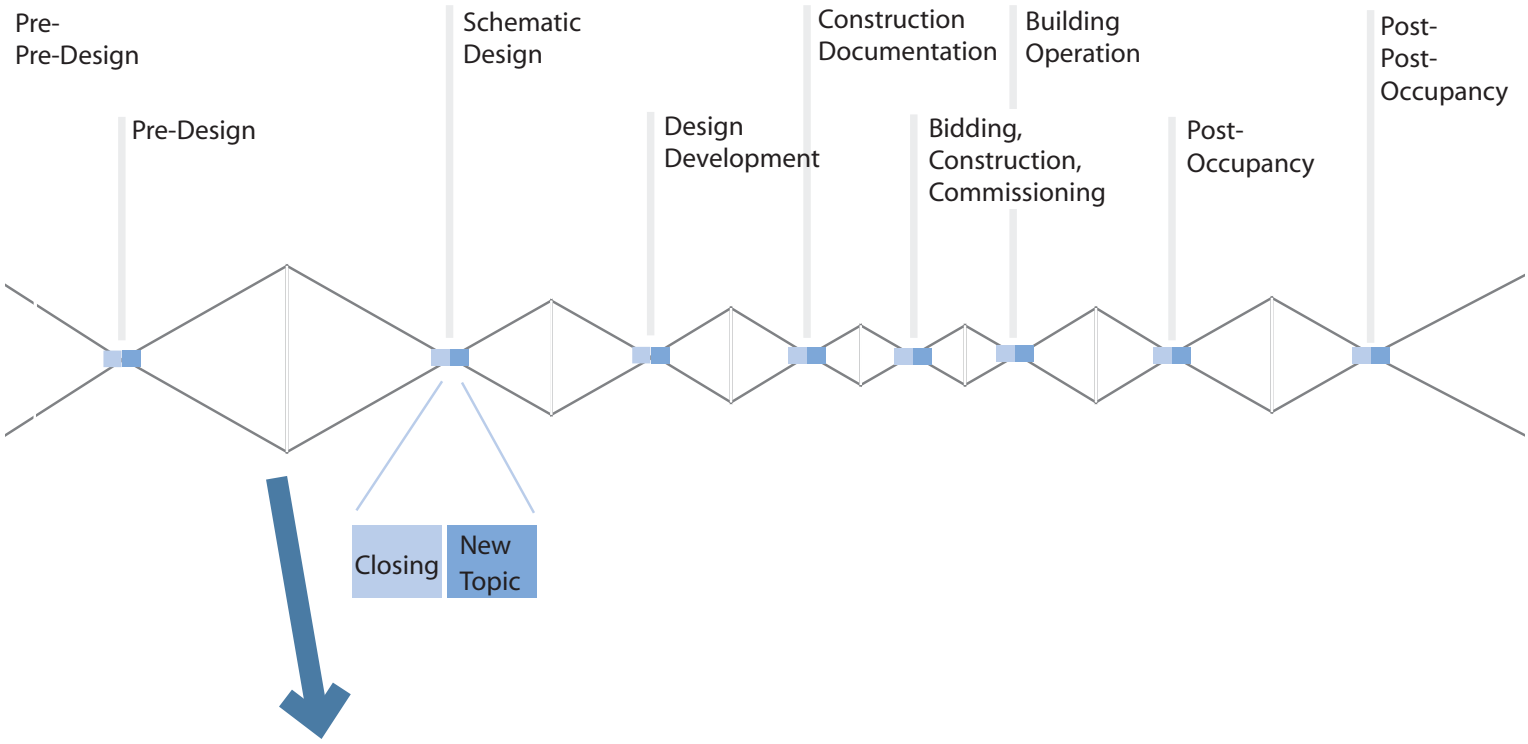
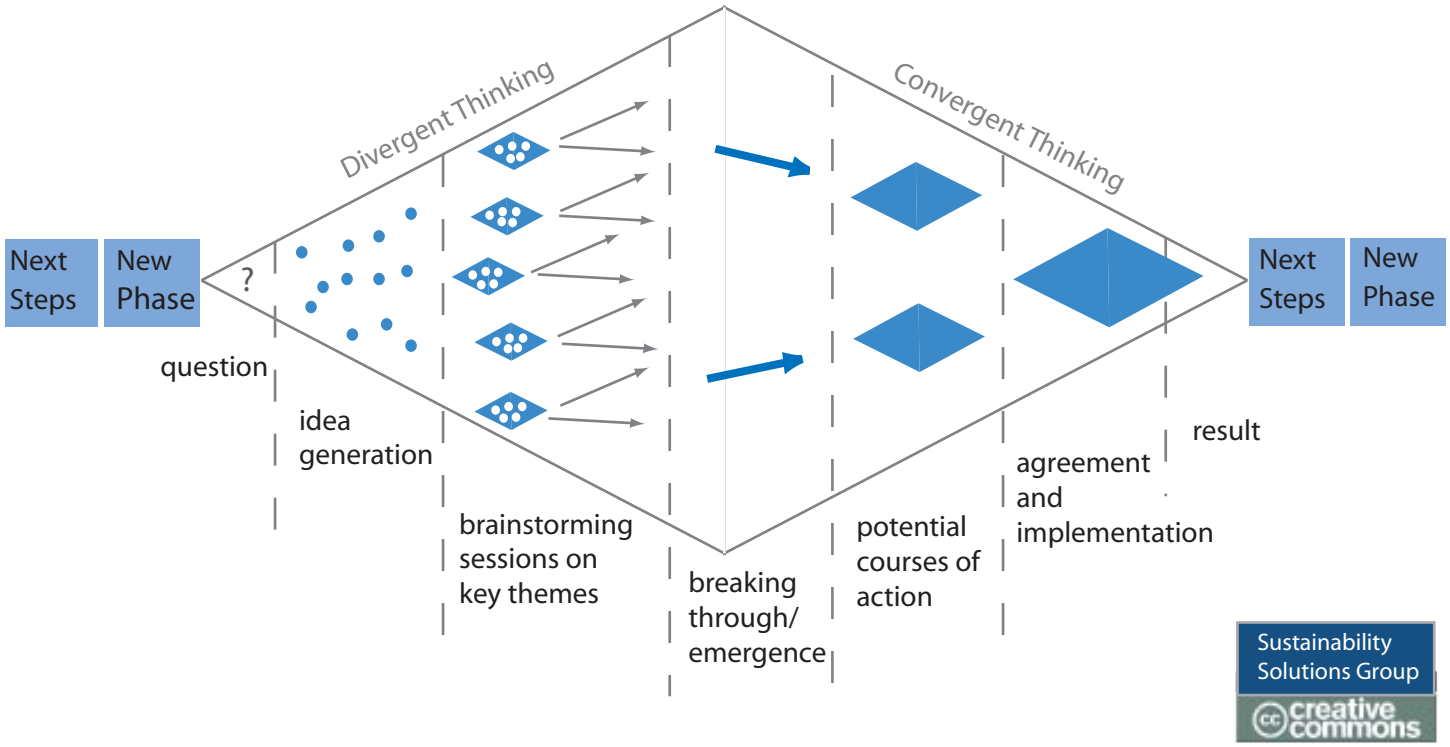


Figure 9: IDP Meeting (adapted from Kaner, 2007)



to draw on a wide range of ideas (divergent thinking) and gradually focus these ideas into a course of action (convergent thinking).

Roles in Process Design

Based on the responses of the client to the above questions, the role of the facilitator can then be clarified.

- To what degree will the IDP facilitator be involved in overall process design for the IDP? How will this responsibility be shared with the project manager? With the green/sustainable building advocate, the architect, and other team members?
- To what degree will the IDP facilitator be expected to advocate for sustainable design? Is there an obvious champion already involved in the team? Should a separate champion be brought in?
- How will logistical communication and coordination responsibilities be handled by the design team? What specific arranging, recording, and communication responsibilities will the IDP facilitator be expected to take on?
- To what degree will the IDP facilitator build the capacity of the team to facilitate IDP themselves, and how will this effect the design of the process?

The following is a key set of questions for an IDP facilitator; guidance is provided throughout this document that will aid the facilitator in developing an appropriate IDP for each particular context.

- What are the desired outcomes?
- When are the key dates for for the outcomes?
- Who is involved, when, and what are their roles?
- How will the process and outcomes be evaluated?
- Will the process educate and create common vision and alignment?

The team may decide to collaboratively design the IDP in a charrette early in the project, and to share the ongoing maintenance of the process design throughout. However, due to time or budget constraints, the facilitator may decide to work with the owner and project manager to develop the process. At a minimum, the facilitator aims for full team meetings during the pre-design, design schematic, construction, and occupancy phases. Sub-sets of the team can be pulled together to address particular issues to minimize cost. The more time a team spends together early on in the process, the better their relationships

and communications are, and consequently, the more successful will be the integration of building systems and solutions. There is no right or wrong way to design process. There are, however, more and less effective ways for each team and for each project. The questions suggested here will help to determine more effective process design strategies for each context.

The role of the facilitator is to ensure that the process results in the development of a common purpose – to set a vision and performance goals, to build meaningful dialogue amongst team members, to empower team members to contribute, and to ensure the project meets constraints including budget and timeline.

The IDP facilitator may or may not be involved in selecting the design team. The *Roadmap* provides a helpful list of team members that should be involved in IDP at different stages in the design process. The composition of the team, however, will vary according to the complexity, context and size of the project, as well as the project's objectives. Wherever possible, a full range of stakeholders should be involved, particularly in the initial stages of the IDP, and when the project is occupied and operational. A stakeholder is defined as someone affected by or having an interest in the project and the involvement of a range of stakeholders is based on the premise that a more integrated and successful outcome will emerge if more diverse perspectives are involved.

B.2 PROCESS MANAGEMENT

The facilitator may, in cooperation with the project manager, be responsible for stewarding the design process. In this case the facilitator works with the team to ensure that the process design and implementation continues to meet their needs, that the information, ideas and resources are flowing when they are needed, that the participants are actively and meaningfully engaged, that meetings are happening when they are needed, and that the team is meeting their schedule and budget objectives.

Recording the discussion and decisions during design charrette sessions is a critical part of the process that should not be taken lightly. It is useful to have note takers with a technical background - maybe a student studying in a design profession who is interested in experiencing an IDP charrette.

Nils Larson (personal communication, 2007)

Appendix 2 is a checklist of the deliverables for an IDP. The checklist was created by Jack Meredith for LEED projects but has been adapted here for IDP in general. It includes deliverables for the different phases, including pre-project, schematic design, design development, and construction documents and should help team members with facilitation responsibilities to manage the ID process.

Budget and Schedule

Ideally, the facilitator and/or project manager will work with the client to establish a budget and schedule, as IDP has significant implications for both. Many IDP practitioners and teams recognize that IDP typically requires a shift in soft costs. An investment of additional soft costs in the pre-design, schematic design and design development stages can lead to a significant reduction in costs associated with bidding, tendering, change-order management and approvals in the later project phases. A client therefore needs to be ready and able to support this process requirement with the budget, and availability of funds at different times during the project. The client also needs to be flexible with schedule, allowing sufficient time in early phases to enable research, exploration of ideas, idea generation, integration, and innovation to happen.

TOOLS: Process Management (See Appendix 5)

9. Minutes and Group Recording
10. Room Arrangement
11. Seating Arrangements

Information Management and Communications

Throughout the integrated design process ideas are generated, possibilities are narrowed, decisions are made, and action items and next steps are delineated. Each of these steps require a significant information management and communications component. The facilitator needs to ensure that this information goes where it needs to go, that minutes are sent out, decisions are documented, action items are tracked and lose

ends are tied up.

Preparatory materials provided well in advance of the meeting to give participants time to prepare can be crucial in IDP. However, careful consideration must be given to the manner in which these documents are distributed. For example, providing extensive documentation ahead can result in some team members having read the materials whereas others have not and bringing the whole team up to speed will result in part of the team being disengaged. Clear communication of expectations in meeting preparation and careful assignment of tasks or homework and summary documents combined with a check-in via phone of team members can avert this problem.

Two logistical tools include the provision of a file transfer protocol server, where all IDP-related documents can be posted, and an email list for team members that can be used for updates and information dissemination.

Social Dynamics

There is also a human side to process management that may involve one on one communication with participants to develop an understanding of their particular take on an issue. While the facilitator is not a therapist, this understanding can help the facilitator design a process that will allow everyone to participate fully. The facilitator can draw on experience to match tools and strategies to different organizational dynamics. Ensuring that issues are communicated, conflict is identified and attention is paid to non-verbal communications are all important activities in facilitation.

Meeting Space

The nature of the meeting space contributes significantly to the overall atmosphere of the meeting, and careful attention to the meeting space is a useful facilitation strategy. A circle is a highly participatory structure, whereas a standard classroom layout encourages passive behaviour. Other factors to consider include the acoustics, indoor environmental quality, and visual qualities: Will everyone be able to see and hear? Is the size of the space appropriate (neither cavernous nor overly intimate)? Is the space accessible for all participants? Are the necessary materials and equipment readily available? Is the indoor environment healthy and comfortable?

Time-keeping

This role is typically assigned to a third party (although the facilitator always

needs to be conscious of time) who will provide appropriate reminders of time remaining, in order to enable the group to keep to the agenda. The facilitator and timekeeper can use different strategies to keep the group on track and on time, for example, reminding the group when the time allotted for a particular agenda item is almost finished, and encourage the group to either wrap up, or agree to add time if deemed appropriate.

Maintaining momentum between meetings

The facilitator keeps the process flowing between meetings, particularly by ensuring quick follow-up with minutes, action items, decisions and monitoring the work of groups or individuals tackling specific issues.

described in detail in the next section as the first two of the facilitator's responsibilities.

IDP Facilitation Responsibilities

The responsibilities that have been distilled as essential for IDP facilitation include process design, process management, guiding content, moderating group dynamics, advocating sustainable design and evaluation.

Each of the responsibilities are outlined in section B of this document with corresponding tools that can be employed by the IDP facilitator.

The facilitator must strike a balance between keeping team members on track with the objectives and agenda, and allowing sufficient space for creativity.

Through careful selection of tools such as those listed in the sidebar, the facilitator can draw on the range of expertise represented by the team.

It is highly likely that team meetings will change course from their original agenda. A facilitator can prepare for this by:

- Understanding the issues facing the team as much as possible as each meeting is prepared and followed-up;
- Working with the team to set clear objectives for the meeting, or cycle of meetings, so that the process is designed appropriately and the group is working toward the same end;
- Understanding the group and power dynamics of the team, particularly if a given meeting is the first that the facilitator is involved in with the team, or if there are new/different team members participating;
- Devising alternative courses of action or discussion that could be employed in different circumstances;
- Being strict but flexible with the agenda; and
- Ensuring the group is clear about where it wants to go, and the implications of diverging from this plan of action.

Clarifying

Because of the highly technical aspects of building design and multi-stakeholder participation, the facilitator needs to check-in frequently to

I believe it is critical in more technical discussions for the facilitator to be able to challenge the technical aspects of the design and to challenge underlying assumptions of the design team. For this reason, it is critical for the facilitator to have technical knowledge so that they can challenge experienced design professionals and convince them that they might need to do something in a different way, or look at something in a different way.

Vivian Manasc (personal communication, 2007)

TOOLS: Guiding Content (See Appendix 5)
12. Appreciative Inquiry
13. Six Thinking Hats
14. Brain Writing
15. Classic Brainstorming
16. The Concept Fan
17. Consensus Mapping
18. The Decision Ruler
19. Prioritizing with Coloured Dots
20. Hand Signs
21. Opportunities and Threats Grid
22. Polar Gestalt Mapping
23. World Café

ensure that everyone understands the information being presented and that the language of one stakeholder is decipherable to all team members. The ability of a facilitator to encourage and enable cross-disciplinary communication through clarification of jargon, reframing and reflecting comments and asking clarifying questions is critical to building understanding.

The facilitator can also help the group to work through complex and challenging discussions and identify critical issues, drawing on a repertoire of tools, to ensure that key ideas emerge and appropriate decisions are taken.

Setting High Level Goals and Generating New Ideas

The ability of a team to integrate their knowledge and past experience into a new design challenge, with a new team and new objectives, is a highly creative process. The green building industry is evolving rapidly with new products, strategies, and techniques. The facilitator needs to find ways to tap into this knowledge and experience and bring it to the table on each project.

Brainstorming can be used effectively to define high level performance goals that can become the basis for both new ideas and for an evaluation. Another method is to introduce systems such as the Natural Step Four Conditions, Leadership in Energy and Environmental Design, One Planet Living principles or the Living Building Challenge, and to pose questions – "Could this project aspire to be zero waste, carbon neutral, net zero water use, etc.?"

It is important for the facilitator to allow a group to experience creative tension at this stage in a project, and not rush them to find solutions or make decisions. The facilitator needs to have confidence in the group to work with their creative tension and to allocate time for reflection in order for unique ideas to emerge.

Another role of the facilitator is to create a safe space for taking risks and experimenting with new ideas (Griggs, 2004), including:

- · Asking questions that solicit new ideas: "Are there other perspectives on this issue?" or "Have we thought about how the energy and waste systems in this project might be integrated?"
- Making an explicit appeal to suspend judgment: "Let's try to be crea-

tive here for a while and let go of some of our assumptions about what will work and what will not. Can anyone suggest a very different way of seeing the problem?"

- Introducing a structured opportunity: Try a discussion format that deliberately encourages creative thinking, such as brainstorming, visioning, etc..
- Changing the structure of the group: Try dividing into pairs or small groups.

Reflecting Participant Contributions

It is often the responsibility of the facilitator to work with team members to synthesize, organize and summarize the results of a meeting. The facilitator can use visuals, such as graphs or mind maps, to present this work. The facilitator needs to ensure someone is responsible for careful, accurate documentation of the proceedings. This will be the record that allows the group to hold itself accountable to its descisions and for its actions. Meeting results and documentation need to be completed and circulated promptly in order to ensure follow-up on action items and to maintain and build-up momentum.

TOOLS: Reflecting Participant Contributions (See Appendix 5)
24. Concept Mapping
25. Graphic Facilitation
26. Parking Lot
27. Rotating Flip Charts

Decision-making

The first step in collective decision-making is ensuring that the team understands when and how a decision will be made. Once a decision has been made, it is carefully recorded and responsibilities for follow-up with a time line are assigned. The facilitator should work with the team to identify key decision-making points in the process so that the team understands how and when decisions will be made, and how this factors in to the IDP as a whole.

There are a wide range of decision-making strategies that can be employed. Consensus involves all participants indicating that the proposed course of action is in the best interest of the group, but not necessarily fully supporting the decision. The process of seeking consensus involves going to the root of hesitations that team members might have, and is therefore useful for solving complex issues. Consensus may not be appropriate when the ultimate decision-making responsibility fall to the client, unless it is clearly stated that the consensus is on recommendations, and does not represent the final course of action. If consensus cannot be achieved, the team may choose to switch to a vote by majority. If this option was agreed upon at the outset, a vote by

two-thirds of the team members can be used to switch out of consensus.

Majority rules is the most commonly understood and used decision-making strategy. The disadvantages of this system include the creation of a disempowered minority, the potential disregard of important considerations, and the potential failure to achieve the most integrated, thoughtful solutions possible. In some cases majority rules is appropriate, usually in meetings with tight time constraints or for less complex issues.

Irrespective of the decision-making system used on a project, the most important considerations for the facilitator are to aid the team in clearly describing the process in its entirety, to clarify which team members are responsible for decision-making, to indicate the documentation and communication process around decisions, and to be transparent with regard to the whole process. This ensures that the team is fully aware of how decisions are being made on a project and what each team members' role is in that process.

B.4 MODERATING GROUP DYNAMICS

Facilitators need to be committed to work in and with groups, in order to establish and articulate their collective wisdom. Kaner (2007) describes the characteristics of both participatory and conventional groups. This distinction helps to clarify the aims of an IDP facilitator working towards participation.

Group discussions are often dominated by the most articulate, quick thinking and, in some cases, loudest participants, or participants with the most power in the group. A key role of the facilitator is to distribute air time amongst all participants. IDP recognizes that every person holds a piece of truth, and that sharing perspectives will contribute to a more robust solution. Pragmatically, individuals who don't participate are more likely to disrupt the flow of the meeting, and are less likely to buy-in to the results of the group process.

Energy and attention fluctuate throughout the day, and also vary according to the subject matter at hand. At a certain point of fatigue or distraction, a group becomes ineffective, and it is the role of the facilitator to ensure the group is both conscious of this and has strategies to counter it. One frequently used method is to appoint someone as the 'vibes-watcher', a role that includes monitoring the energy levels of the group and proposing breaks or exercises to rejuvenate the group. Another strategy is for a facilitator to carefully pay attention to the dynamics of the group during certain times of day or activities, and to adjust the design of the meeting or process agenda, to ensure the engagement of the group.

Ground Rules

Ground rules are established in a way that is agreed to, understood, and supported by all team members. They are most effectively used when a new team agrees to the ways in which they want to work together on the task/project at hand, for example, giving the facilitator and the group a tool against which individuals and the group can be held accountable during difficult periods. Ground rules are revisited throughout the process to ensure their relevance.

Ground rules for an IDP typically fall into the following themes:

1. Team dynamics (eg. respect for team members ideas, equalizing participation, dealing with conflict).

TOOLS: Moderating Group Dynamics (See Appendix 5)
28. Sample Ground Rules
29. Active Listening
30. Cog's Ladder
31. Conflict Resolution
32. Conversational Terrorism
33. Dealing With Air Hogs
34. Non Violent Communication
35. The Talking Circle
36. The Pitfalls of Dialogue

Sample Ground Rules

- Commit to work toward the project vision and performance goals
- Actively contribute best ideas to the team and to the project.
- Respectfully listen to the contributions of team mates.
- Be fully present and engaged in team meetings and conversations
- Be a steward of this project first, and a steward of an organization second.
- Evaluate ideas, not people
- Commit to recognize and work through conflict when it arises.
- Celebrate and embrace the diversity of the team, and the diversity of ideas.

Table 4: Participatory vs Conventional Groups (Kaner, 2007)

Participatory Groups	Conventional Groups
• Everyone participates, not just a vocal few.	• The fastest thinkers and most articulate speakers get all the airtime.
• Everyone gives one another the room to think and the time and space to express their thoughts fully.	• People interrupt one another on a regular basis.
• Opposing viewpoints are allowed to co-exit, people are comfortable remaining at the edge of paradox.	• Differences of opinion are treated as conflicts that must either be smoothed over or solved.
• People draw each other out with supportive questions.	• Questions are perceived as challenges, requiring the target of the inquiry to justify their opinion.
• Each member makes an effort to pay attention to the person speaking.	• Unless the person speaking is captivating, people space-out, dwell on their own reactions rather then the intent of what someone else is saying, or focus on their next comment or suggestion.
• Each person feels free to name the elephants in the room. Everyone knows where everyone else stands.	• No one feels safe enough to name 'elephants.' No one really knows where everyone else stands.
• Group members can accurately represent other members points of view even when they do not agree with them.	• Members rarely give accurate representations of the opinions or reasoning for those whose opinions are at odds with their own.
• People refrain from talking behind other people's backs.	• People talk behind one another's backs because they do not feel safe challenging ideas directly within the group.
• People are encouraged to speak their own truths and opinions.	• Those holding minority views are discouraged and feel inhibited from speaking their own truths and opinions.
• A problem is not considered solved until everyone who is affected by the solution understands the reasoning behind it.	• A problem is considered solved as soon as the fastest thinkers have reached an answer. Everyone else is then expected to 'get on board,' regardless of whether they understand the logic of the decision.
• When people make an agreement, it is assumed that their decision still reflects a wide range of perspectives.	• When people make an agreement, it is assumed that they are all thinking the exact same thing.

2. Logistics (eg. being on time, having a meeting agenda and following it).
3. Design innovation (eg. commitment to transdisciplinary innovative design solutions, agreement to contribute ones' best ideas to the process).

Training and Team-building

Typically, those involved in the design of a building are accustomed to tackling a problem or design question on an individual basis or in association with colleagues in their own discipline. A key first step is therefore creating an atmosphere of cross-disciplinary cooperation. This happens during a welcoming session in which the facilitator aims to make all participants feel safe, ensures that people know each other's names, explains why IDP is being used, lays out a timeline and process sketch, and clarifies everyone's responsibilities in the IDP. The facilitator may then decide to allocate additional time to exercises that will help the team work together.

Facilitation of IDP is inherently about sharing ideas and information, and about learning. The process needs to make time and space for sharing knowledge and ideas, and to build the capacity of the whole team to take risks. A challenge for the facilitator is to find non-threatening and non-judgmental ways to encourage learning and ensure a common understanding. The facilitator can model this behaviour by asking for clarification or for more information when something is unclear. Creating opportunities for team members to share information in "out-of-session" time, like through lunch and learn sessions, is also a strategy to use to ensure continued learning.

TOOLS: Training and Team-building (See Appendix 5)
37. Focus Conversation
38. The Johari Window
39. Mission Pyramid
40. Opportunity Consensus Statement
41. The Orming Model

B.5 ADVOCATING SUSTAINABLE DESIGN

In practice, IDP facilitators are frequently experts in green or sustainable building and additionally assume the role of advocate in the IDP. Sometimes they are also a design team member, thus wearing many different hats. The advocacy role can draw the team's attention to the big picture, challenge them to aim for more ambitious performance targets, relate stories and examples and ask challenging questions thus instilling enthusiasm and excitement in the process. This role can be in conflict with the role of the facilitator, who in general practice strives to be content neutral and to be the steward of the process. By being directly involved and implicated in content discussions, the facilitator assumes several risks.

First, the facilitator is no longer seen as a neutral person, and their process directing work may come across as being biased to take the team in a direction that best suits their green building advocacy goals. Second, team members may begin to seek approval for their ideas from the facilitator. Thirdly, it is difficult for one person to fulfill these two very different roles, and the quality of one or both might be sacrificed as the person is distracted by the diversity of responsibilities that they are meant to fulfill. It is therefore recommended that an IDP facilitator assume a more passive, as opposed to active, advocacy role by, for example, asking pointed questions of the team. In this way, the team will be empowered, as opposed to the facilitator.

If a practitioner finds themselves in the dual role of facilitator and advocate, it is recommended that they focus on fulfilling the role of facilitator first and rely on other team members to bring in content ideas and suggestions. If the content is not being brought to the table by another team member, the facilitator needs to signal explicitly that he or she is stepping out of the facilitation role for the duration of the conversation for which they have content, ideas, or opinions to share. They may ask someone else who is less implicated in that particular conversation to step in as the facilitator. If a firm has been brought in to serve as facilitator and as advocate or design team member, consider bringing two or three people to key, full team integration meetings, with one person serving as the facilitator and the other person/people serving as advocate and as design team member. This allows for clarity of roles and of purpose, and enables team members to participate most fully.

B.6 EVALUATION

Two types of evaluation are recommended: process-focused evaluation and outcome-focused evaluation. These evaluations should be done consistently throughout the project so that the team becomes accustomed to them, so performance can be tracked, and so that the process can be regularly adjusted based on feedback received. The evaluations are completed anonymously so that participants feel comfortable with fully sharing their feedback.

TOOLS: Evaluation
(See Appendix 5)

42. The Debriefing Wheel

Typically the evaluations will occupy the final time slot of each full team integration meeting, likely when moving from one design phase into the next. They can be designed to last 20 minutes, and the results are summarized and presented to the team.

Outcome-focused Evaluation

Outcome-focused evaluation helps the team to measure its progress against the vision, design intent, and design strategies established early on in the project, and ensure that the performance objectives are being met. Typically the evaluations will occupy the final time slot of each meeting, and will not last more than 20 minutes. The results will then be summarized and distributed to the team members for review.

An outcome-based evaluation is used, both to ensure the process is meeting the needs of the IDP team, and to improve the facilitation in future. It can also be used to evaluate the team's performance on meeting their own ground rules. It will involve mostly quantitative questions, and is more likely to happen at key stages in the project: for example, the end of schematic design, the end of design development, and at the occupancy stage. Questions based on the design intent, high level goals and/or the performance objectives will be developed. Examples include:

- Are we on track to meet our net zero carbon target?
- Have we created a partnership with the local carsharing organization that will ensure that all occupants of this project have reliable access to a shared vehicle that meets their transportation needs?
- Have we achieved our objective of designing a community that is completely accessible to those with physical disabilities?

Process-focused Evaluation

A process-focused evaluation helps the facilitator communicate how well the process is serving the team's needs. It can also be used to-evaluate the team's performance against their own ground rules, and can aid in improving the facilitation in future. These evaluations will typically occur at the end of every meeting and should take 5-10 minutes. The results will then be summarized and distributed to the team members for review.

The evaluation will involve a mix of qualitative and quantitative questions, including:

- Overall, how would you rate the workshop? (Scale of 1 to 5)
- Were the objectives clear to you?
- Do you feel the workshop objectives were achieved?
- Did you feel that you could meaningfully contribute to the process?
- Overall, how would you rate the effectiveness of the team? (Scale 1 to 5)
- What part of the IDP workshop did you like the most?
- What part did you like the least?
- How would you rate the standard of facilitation? (Scale of 1 to 5)
- Suggestions
- Other Comments

These evaluation strategies give the facilitator and management team vital information about how well the IDP is working, how successful different facilitation strategies and tools are, and how effectively the team feels it is working. The facilitator then provides the results to the group and explains a plan to respond to the feedback, thus validating the team's contribution to the process.

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APPENDICES

APPENDIX 1: IAF Code of Ethics

This is the Statement of Values and Code of Ethics of the International Association of Facilitators (IAF). The development of this Code has involved extensive dialogue and a wide diversity of views from IAF members from around the world. A consensus has been achieved across regional and cultural boundaries.

The Statement of Values and Code of Ethics (the Code) was adopted by the IAF Association Coordinating Team (ACT), June 2004 The Ethics and Values Think Tank (EVTT) will continue to provide a forum for discussion of pertinent issues and potential revisions of this Code.

Preamble

Facilitators are called upon to fill an impartial role in helping groups become more effective. We act as process guides to create a balance between participation and results.

We, the members of the International Association of Facilitators (IAF), believe that our profession gives us a unique opportunity to make a positive contribution to individuals, organizations, and society. Our effectiveness is based on our personal integrity and the trust developed between ourselves and those with whom we work. Therefore, we recognise the importance of defining and making known the values and ethical principles that guide our actions.

This Statement of Values and Code of Ethics recognizes the complexity of our roles, including the full spectrum of personal, professional and cultural diversity in the IAF membership and in the field of facilitation. Members of the International Association of Facilitators are committed to using these values and ethics to guide their professional practice. These principles are expressed in broad statements to guide ethical practice; they provide a framework and are not intended to dictate conduct for particular situations. Questions or advice about the application of these values and ethics may be addressed to the International Association of Facilitators.

Statement of Values

As group facilitators, we believe in the inherent value of the individual and the collective wisdom of the group. We strive to help the group make the best use of the contributions of each of its members. We set aside our personal opinions and support the group's right to make its own choices. We believe that collaborative and cooperative interaction builds consensus and produces meaningful outcomes. We value professional collaboration to improve our profession.

Client Service

We are in service to our clients, using our group facilitation competencies to add value to their work. Our clients include the groups we facilitate and those who contract with us on their behalf.

We work closely with our clients to understand their expectations so that we provide the appropriate service, and that the group produces the desired outcomes. It is our responsibility to ensure that we are competent to handle the intervention. If the group decides it needs to go in a direction other than that originally intended by either the group or its representatives, our role is to help the group move forward, reconciling the original intent with the emergent direction.

2. Conflict of Interest

We openly acknowledge any potential conflict of interest. Prior to agreeing to work with our clients, we discuss openly and honestly any possible conflict of interest, personal bias, prior knowledge of the organisation or any other matter which may be perceived as preventing us from working effectively with the interests of all group members. We do this so that, together, we may make an informed decision about proceeding and to prevent misunderstanding that could detract from the success or credibility of the clients or ourselves. We refrain from using our position to secure unfair or inappropriate privilege, gain, or benefit.

3. Group Autonomy

We respect the culture, rights, and autonomy of the group. We seek the group's conscious agreement to the process and their commitment to participate. We do not impose anything that risks the welfare and dignity of the participants, the freedom of choice of the group, or the credibility of its work.

4. Processes, Methods, and Tools

We use processes, methods and tools responsibly. In dialogue with the group or its representatives we design processes that will achieve the group's goals, and select and adapt the most appropriate methods and tools. We avoid using processes, methods or tools with which we are insufficiently skilled, or which are poorly matched to the needs of the group.

5. Respect, Safety, Equity, and Trust

We strive to engender an environment of respect and safety where all participants trust that they can speak freely and where individual boundaries are honoured. We use our skills, knowledge, tools, and wisdom to elicit and honour the perspectives of all. We seek to have all relevant stakeholders represented and involved. We promote equitable relationships among the participants and facilitator and ensure that all participants have an opportunity to examine and share their thoughts and feelings. We use a variety of methods to enable the group to access the natural gifts, talents and life experiences of each member. We work in ways that honour the wholeness and self-expression of others, designing sessions that respect different styles of interaction. We understand that any action we take is an intervention that may affect the process.

6. Stewardship of Process

We practice stewardship of process and impartiality toward content. While participants bring knowledge and expertise concerning the substance of their situation, we bring knowledge and expertise concerning the group interaction process. We are vigilant to minimize our influence on group outcomes. When we have content knowledge not otherwise available to the group, and that the group must have to be effective, we offer it after explaining our change in role.

7. Confidentiality

We maintain confidentiality of information. We observe confidentiality of all client information. Therefore, we do not share information about a client within or outside of the client's organisation, nor do we report on group content, or the individual opinions or behaviour of members of the group without consent.

8. Professional Development

We are responsible for continuous improvement of our facilitation skills and knowledge. We continuously learn and grow. We seek opportunities to improve our knowledge and facilitation skills to better assist groups in their work. We remain current in the field of facilitation through our practical group experiences and ongoing personal development. We offer our skills within a spirit of collaboration to develop our professional work practices.

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APPENDIX 2: IDP Deliverables (Adapted from Jack Meredith)

INTEGRATED DESIGN PROCESS

1.DELIVERABLES

Project Phase	Done
PRE-PROJECT	
1.Scope	
a.Ecosystem (habitat, water, wind, soils, vegetation, species, etc.) and socioeconomic (demographics, culture, amenities, income, job availability, heritage, etc.) site context research and reporting.	❑
b.Program (areas, functionality, quality, special features, #'s of people, etc.)	❑
c.Environmental/sustainability vision (1-2 pages) and preliminary discussion of project environmental/sustainability goals (together forming the owners' requirements and design intent).	❑
2.Schedule	
a.Map of integrated design process for whole project: major milestones, timeline, critical path, stakeholder involvement, topics and timing of key integration meetings.	❑
3.Budget	
a.High level expectations regarding budgets by major category - project management, consultants, contractors, construction, etc.	❑
4.People	
a.Identification of stakeholders involved with project and their relative levels of involvement (owner, management team, design team, construction team, neighbourhood association, local advocacy organizations, environmental groups, local government (politicians and civil servants), First Nations, local businesses, etc.)	❑
b.Identification of team (project management, consultants, contractors, community) learning, training and information needs and development of a learning plan, including a schedule of when new team members will come on to the project and a plan for getting them up to speed.	❑
c.High level description of organization including roles, responsibilities, communications and decision-making of all stakeholders	❑
d.Evaluation on how the team is working together, and on meeting project vision	❑
e.General statement on performance management	
i.Conceptual thoughts on motivation of staff, consultants & contractors	❑
ii.Approach to be used to hire consultants	
1.Consultant reporting (directly to owner or through lead consultant) 2.Competition or negotiated 3.Fees (break down by phase; basis of fees (ex. %, fixed fees, cost plus, etc.) 4.Vision re: alignment of interests of consultants to encourage integrated design (i.e. shifting of soft costs up front).	

SCHEMATIC DESIGN	Done
1. Scope	
a.Project vision, goals, and performance targets	❑
b.Architectural concepts	❑
i.Statement of response to owners' design intent and basis of design	
ii.Narrative of concepts and summary of different strategies and assumptions used in the development of each concept; response to ecosystem and socioeconomic site context.	
iii.Conceptual floor plans	
iv.Conceptual building elevations	
v.Conceptual perspective views	
vi.Narrative of special features & quality issues	
vii.Envelope concept by exposure (i.e. direction)	
1.Areas (walls, windows, doors)	
2.U – Values (walls, windows, doors)	
c.Structural concepts	❑
i.Statement of response to owners' design intent and basis of design	
ii.Narrative on concepts and summary of different strategies and assumptions used in the development of each concept; response to ecosystem and socioeconomic site context.	
iii.Schematic/cartoon of structural concept	
d.Mechanical concepts	❑
i.Statement of response to owners' design intent and basis of design	
ii.Narrative on concepts and summary of different strategies and assumptions used in the development of each concept; response to ecosystem and socioeconomic site context.	
iii.Schematic/cartoons of HVAC, water, sewage, gas, etc.	
iv.List of major equipment noting sizes (KW, lps, etc.)	
v.Mechanical power density (watts/sq.m.)	
e.Electrical concepts	❑
i.Statement of response to owners' design intent and basis of design	
ii.Narrative on concepts and summary of different strategies and assumptions used in the development of each concept; response to ecosystem and socioeconomic site context.	
iii.Schematic/cartoon of electrical concept	
iv.Lighting power density (watts/sq.m.) by functional area	
f.Other design consultants	

i. Identification of other key design disciplines at this stage, for this project (i.e. landscape architect, interior design, civil engineer, public artist, etc.).	❑
ii. Narrative on concepts and summary of different strategies and assumptions used in the development of each concept; response to ecosystem and socioeconomic site context.	
g. Preliminary energy simulations	
i. Energy simulations based on concepts noting energy use by major function (i.e. heating, cooling, lighting, fans, pumps, etc.)	❑
1. % energy saving relative to baseline	
2. % energy cost saving relative to baseline.	
h. Drawings & documentation	
i. Table of contents of drawings to indicate number & type of drawings	❑
2. Schedule	
a. Reiteration of IDP process map including new and revised information for the critical path (public meeting dates, stakeholder meetings, integration sessions on different systems and concepts, development permit submission and approval, 50% drawing completion, building permit submission and approval, tender request(s) and closing date(s), contract awards, commissioning, occupancy	❑
3. Budget	
a. Refinement of budget based on different design concepts broken down by major category - project management, consultants, contractors, construction, etc.	❑
i. Further break down if available (sub-consultants, sub-contractors, etc.)	
4. People	
a. Development of education, marketing, promotions, and community engagement strategy for ongoing information sharing and communications.	❑
b. Organization chart noting roles, responsibilities, communications and decision-making (i.e. include owner, staff, IDP facilitator, consultants & contractors)	❑
c. Team evaluation on how the team is working together, and on meeting project vision, goals, and performance objectives.	
d. Performance Management	❑
i. Development of strategy for staying on track with performance targets and reporting on results to key stakeholders.	
ii. Performance reporting methodology (frequency, process, etc.)	❑
1. Staff	
2. Consultants	
3. Contractors	
4. Community stakeholders	

DESIGN DEVELOPMENT	Done
1.Scope	
a.Decision and direction set on preferred design concept	❑
b.Architectural drawings & specifications	❑
i.Final narrative on concept in response to owners' design intent	
ii.Final floor plans including millwork	
iii.Final building elevations	
iv.Final perspective views	
v.Narrative & details on special features & quality issues	
vi.Draft specifications	
vii.Final envelope concept	
1.Areas (walls, windows, doors)	
2.U – Values (walls, windows, doors)	
c.Structural drawings & specifications	❑
i.Final schematic/cartoon of structural	
ii.DD drawings	
iii.Draft specification	
d.Mechanical drawings & specifications	❑
i.Final narrative on concept in response to owners' design intent	
ii.Final schematic/cartoon of mechanical concept	
iii.List of major equipment noting sizes (HP, lps, etc.)	
iv.Mechanical power density (watts/sq.m.)	
v.DD drawings	
vi.Draft mechanical specification	
e.Electrical drawings & specifications	❑
i.Final narrative on concept in response to owners' design intent	
ii.Final schematic/cartoon of electrical concept	
iii.Lighting power density (watts/sq.m.)	
iv.DD drawings	
v.Draft electrical specification	
f.Other design consultants	❑
i.Final narrative on concept in response to owners' design intent	
ii.Final schematic drawings of concept(s)	
iii.Draft specification	

g.Energy simulation	❑
i.Energy simulation based on design development design noting % energy cost saving	
h.General	❑
i.Updated table of contents of drawings	
2.ID process map updated to DD and revised as required	❑
3.Budget updated to DD	❑
4.People	
a.Updated organization chart noting roles, responsibilities, communications and decision-making.	❑
b.Team evaluation on how the team is working together, and on meeting project vision, goals, and performance objectives.	❑
c.Performance management reports	❑
1.Staff	
2.Consultants	
3.Contractors	
4.Community stakeholders	

CONSTRUCTION DOCUMENTS	**Done**
1.Scope	
a.Architectural Drawings & Specifications	❑
i.Updated narrative on concept (if required)	
ii.Refined floor plans including millwork	
iii.Refined building elevations	
iv.Refined perspective views	
v.Narrative & details on refinement of special features & quality issues	
vi.Final specifications	
vii.Refined envelope concept	
1.Areas (walls, windows, doors)	
2.U – Values (walls, windows, doors)	
b.Structural drawings & specifications	❑
i.Updated schematic/cartoon of structural	
ii.CD drawings	
iii.Final specification	
c.Mechanical drawings & specifications	❑
i.Updated narrative on concept (if required)	
ii.Updated schematic/cartoon of mechanical concept	

iii.List of major equipment noting sizes (HP, lps, etc.) iv.Mechanical power density (watts/sq.m.) v.CD drawings vi.Final mechanical specification	
d.Electrical drawings & specifications i.Update narrative on concept (if required) ii.Updated schematic/cartoon of electrical concept energy cost saving	❑
g.General	
i.Updated table of contents of drawings	❑
2.Schedule updated to CD	
3.Budget updated to CD	❑
4.People	❑
a.Updated organization chart noting roles, responsibilities, communications, and decision-making	❑
b. Team evaluation on how the team is working together, and on meeting project vision, goals, and performance objectives.	❑
c.Performance management reports 1.Staff 2.Consultants 3.Contractors 4.Community stakeholders	❑

APPENDIX 3: Detailed Facilitation Tools

The following are a set of four facilitation tools which are useful for every IDP process. They are described in detail in this Appendix.

1 Goal Setting:

The pre-design phase of IDP often determines the general shape and direction of the project more than the rest of the design process combined. One of the most important aspects of the pre-design phase is visioning and goal setting.

Goal setting is most effective when it is preceded by the creation of a more general project vision and project goals, and when it is followed by more detailed and technical performance targets. For example:

Project Vision	To develop a self-sufficient model for detached suburban housing units.
Project Goal	To be energy neutral in development and operations
Project Goal	To use geothermal heating and cooling combined with a small-scale wind turbine to achieve energy neutral operations.
Performance Target	To produce 60% of total power use through a small-scale wind turbine.

Creative Thinking Phase: During this phase, any variation on brainstorming or another creative thinking exercise can be used to generate a high volume of ideas for potential project goal. Each idea should be recorded on a small sticky-note. It is critical that this creative thinking process is free from judgment or criticism, and that many ideas are allowed to accrue without being challenged or organized.

Clustering Phase: During this phase an affinity mapping, or related clustering exercise, is used to organize the project goal ideas into related groups. Participants are encouraged to move the ideas around on the wall until there is general satisfaction with the ordering of the groups. Finally, the facilitator reads off all of the ideas, and gives rough titles and boundaries to the clusters of goals. Brainstorming is a creative process so be sure to provide adequate time, particulary is a group is slow to get started.

Honing Phase: During this phase, the group is divided into smaller subgroups of three to seven people, and each sub-group is given one or two clusters to work with. Each small group sorts through the ideas in their cluster(s), and produces a refined list of goals or a single goal that best represent the ideas contained in their cluster(s).

Decision-Making and Prioritizing Phase: During this phase, the whole group uses a voting or "dotmocracy" process to decide on a working list of goals, and to indicate the relative level of importance of each goal.

The group can use these prioritized ideas to determine next steps in investigating possibilities for the project.

2 **Agenda Creation:**

Design processes, especially integrated design processes are often composed of many different design meetings and design exercises. The purpose, content, and dynamics of each of these design meetings and exercises, and of different sections of any one design meeting or exercise, may vary significantly. Effective facilitation, across this variety of IDP meetings and exercises, begins with meeting planning and with the invaluable tool of the meeting agenda.

The agenda is both a meeting planning tool and a guiding content tool. As a meeting planning tool, the agenda functions to clarify the purpose of the meeting, define specific topics that need to be covered, plan time allotment for each topic, and anticipate how each topic will need to be facilitated. As a tool for guiding content during the design meeting or exercise the agenda provides a map of where the meeting is going, a timeline, and a point of focus for all participants.

Five Building Blocks of a Strong Agenda:

1. General purpose: The first step in building an agenda for a design meeting or exercise is to consider the purpose of the meeting or exercise. Is it necessary to meet? How does this particular meeting or exercise fit into the broader design process? What are the main goals or objectives for the meeting? Who needs to participate? In addition to these general considerations about the purpose of the meeting, it is also useful if the agenda presents the specific purpose of each agenda item.

2. Agenda items or topics: What specific topics or agenda items need to be covered during the meeting, in order to fulfil the general purpose of the meeting or exercise? Are there reoccurring agenda items for regular meetings? Are there new items or special items just for this meeting? Each agenda item should be given a concise title that reflects its content.

3. Type of meeting format: Different types of design meetings or exercises and different types of agenda items require different kinds of meeting formats. The following five main types of meeting format are comprehensive and flexible enough to encompass a range of different kinds of discussion, decision-making, and group dynamics.

- Information: A format for information, announcements, and reports, and some time for clarifying questions.
- Creative Thinking: A format for brainstorming and creative dialogue, where no decision-making is needed.
- Ratifying: A format for simple ratifying-type decision-making, where the agenda item has already been carefully considered by another group or sub-group and there is little expectation for dissent or discussion.

- Decision-making: A format for more involved discussion and decision-making around complex or controversial issues.
- Check-in: A format for emotional check-ins, check-outs, or discussion that is focused on how people are feeling.

4. Time: In the development of an agenda, time refers both to the general ordering of agenda items on a timeline and to the specific amount of time allocated for each agenda item. What is the most effective order or flow of agenda items? What is the total time allotted for the meeting? How much time will each agenda item require? What is the degree of flexibility in the required time for each item? It may be useful to place agenda items in a time sequence by writing each item on a sticky note that can easily be reordered. It may also be useful to break the total meeting time down into smaller 10, 20, or 30 minute time blocks, which can then be shuffled between agenda items until an ideal time allocation is reached.

5. Lead Person: Although the facilitator is by default the person who will be leading most agenda items, there are times when it is most effective for another core team member or special guest to introduce or guide the discussion on a particular agenda item.

6. Preparation and follow-up. In IDP meeting preparation is crucial to having effective meetings. What information, work, or thinking needs to be done in advance of the meeting? Follow-up is also important. Who is going to take responsibility for following up on each action item that is identified, and by when? This aspect of agenda planning helps build and maintain momentum between meetings, and keeps the whole ID process working consistently in the direction of the teams' vision and goals.

Agenda Template:

These 5 agenda building blocks can be represented in an electronic or hard copy agenda template:

Item	Purpose / Details	Time	Type of Space	Lead Person
PV roof integration	Generate ideas for integrating PV array into roof design	50 min.	Creative Thinking	Leo Masson: architect
Break	Refresh group energy	5 min.		
LEED Certification	To decide on a level of LEED certification for the project	30 min.	Decision-making	Francois Albert: client
Wrap-Up	Close the meeting, verbal evaluation, review of follow-up items	20 min.	Check-Out	Facilitator

3 Dealing with challenging participants

One of the greatest challenges of IDP is moderating group dynamics amongst a diverse group of participants, who often have little experience working in a participatory meeting environment. This challenge is felt most acutely by the group and the facilitator when there are particularly challenging participants who speak too much or too little, who develop conflicts with other participants, or who directly challenge the role of the facilitator.

The following recommendations for dealing with challenging participants are intended as guidelines and not as step-by-step instructions. These guidelines need to be modified to fit the particular context of the design meeting or exercise in which the group or facilitator is struggling with a challenging participant.

Participants who take up too much meeting space, time, and energy:

- Plan for it. Structure the participant's contribution to the meeting in a constructive way, so that they feel that their voice has been formally valued and heard.
- Use ground rules. Make sure that the group creates or adopts ground rules that include points like: active listening, self-facilitation, one voice at a time, etc..
- Introduce your approach to group moderation as an approach that will ensure everybody has a chance to contribute and that the space is not dominated by few voices.
- Privilege those who have not spoken. When keeping a speaker's list, inform the group that you will be prioritizing speaking space for those that have not yet spoken, or have spoken less.
- Using body language and hand signs, cut the individual off, and reference the ground rules and facilitation approach to justify your interruption. Sometimes body language and hand signs will not be enough, and you may have to cut a participant off by speaking loudly and confidently over them.
- Place time limits on comments during go-arounds or other highly participatory sections of the agenda, so that this time limit can be enforced if necessary. Clearly state this time limit before opening the speaking space to participants and establish a hand sign to warn participants when they are almost out of time, and another hand sign to warn them when they are out of time.
- Make it obvious that the participant is taking up too much space by using an exercise for part of the meeting in which every participant is required to take a piece of candy from a pile in the middle of the room whenever they speak. At the end of the exercise, people are asked to reflect on the size of their pile of candy.
- Follow-up personally with participants during breaks in the agenda, to communicate clearly that you would like them to leave more space for others, and to see how they are feeling about times when you may have cut them off earlier in the meeting.

Participants who are quiet:

- Consider the value of silence. There are many good reasons why people may be silent during a meeting, do not assume immediately that silence from a participant is a problem.
- Plan for it by structuring the agenda so that quieter participants are involved in leading or introducing agenda items when they have the appropriate knowledge to do so.
- Use moderation strategies that give everyone formal space to speak, such as go-arounds.
- Privilege those who have not spoken. When keeping a speaker's list, inform the group that you will be prioritizing speaking space for those that have not yet spoken or have spoken less.
- Don't be afraid to put people on the spot, but let them know that they can pass if they do not wish to speak.
- Adjust the format and structure of the meeting space to enable more people to speak and to create more comfortable spaces for those who are quieter. Consider small group work, or even independent work, with reporting back to the whole group as an option.
- Take the time outside of formal meeting time to ask one-on-one with quieter participants what would enable them to participate more fully in the group. Sometimes, particularly when different cultural and gender dynamics are at play, the facilitator may need to adjust the method of engaging in the conversations to better accommodate the non-dominant culture.
- Watch the body language of quieter participants carefully to make sure that they still appear engaged in the discussion. If you observe that people are "unplugging" or "checking-out" of the discussion, make sure to take a break or change the approach to the agenda item being discussed.

Interpersonal conflict between participants:

- Do not be afraid of conflict. Remember that conflict is a source of information and energy and may be an important and healthy part of a collective group process.
- Call out interpersonal conflict or tension that is seriously impacting the meeting. Verbally acknowledge the interpersonal conflict or tension you are observing, explain the impact that it is having on the group, and shift the focus back to the purpose of the meeting.
- Introduce contentious issues with an acknowledgement of tension that has previously existed around the issue, and a recommended approach that will help the whole group work through the issue together.

Participants that frequently and/or aggressively challenge the facilitator:

- Introduce your role as facilitator as a role that inherently involves an unequal power dynamic. Explain that by bringing in a facilitator, the group has created a role with great power and responsibility to help the design meeting or exercise run smoothly.

- Have the group take ownership of the agenda and ground rules so that facilitator has these to fall back on if challenged
- Use quick straw polls regarding decisions about meeting process so that the facilitator has more energy to guide decisions about group process. The straw polls should generally be used to gather information only, in most cases the final decision about meeting process should be taken by the facilitator.
- Ask for alternatives when participants challenge the facilitator.
- Speak personally with challenging participants during breaks.

4 Communication in plain language:

Integrated design processes, by their very nature, bring together stakeholders from different disciplinary backgrounds. This blending of different skills and knowledge is the strength of IDP, however, it also poses significant challenges in terms of communication. Technical jargon, countless acronyms, and different sketching styles and software formats, are common barriers to effective communication between IDP participants.

Jargon Busting:

Jargon is specialized technical language that is specific to a particular field and therefore is difficult for others outside of that field to understand. Jargon can be useful for communication between specialists within the same field, but it is often a major communication barrier in the interdisciplinary environment of IDP. Even if IDP participants recognize that jargon can be a barrier to communication, it is so ingrained in technical specialists' language that it will inevitably enter the conversation.

One of the best ways to resist jargon is to anticipate where and when it is most likely to appear. The following list presents some of the contexts in which jargon is most heavily used in IDP, coupled with some of the impacts of its use:

Context	Example	Impact
Communication between specialists with the same disciplinary background.	In the middle of a brainstorm, one engineer comments on the suggestion of another engineer using engineering jargon.	The group's creative thinking process quickly shifts to an exclusive two-person conversation.
Trying to impress.	A green building consultant uses lots of sustainable design jargon in an attempt to impress the rest of the design team and to prove that his specialized skills are needed.	Participants "unplug" from the presentation by the specialist because they cannot understand, or they get irritated by the consultant's choice to impress rather than truly collaborate.
Distracting from facts	A bioclimatic engineer presents the results of an energy modeling exercise using lots of jargon to disguise the reality that her simulation does not support her proposed HVAC design.	Breaks-down group trust and wastes valuable group time.
Hiding lack of knowledge	Rather than admitting that she does not know the answer to a question, a cost consultant gives an evasive response using lots of jargon.	Confuses the group and/or gives a bad impression of the consultant

Trying to fit in	An architecture student invited to participate for the first time in an IDP charrette uses architecture jargon to try and connect with the professional architects at the charrette.	Impedes learning and direct communication, and trains the rest of participants not to listen to the incomprehensible contributions of the architecture student.

Preventing Jargon:

- Create an anti-jargon ground rule
- Discuss interdisciplinary communication at the beginning of the IDP
- Call out jargon when you hear it and ask for a definition
- Play a brief jargon busting game

Jargon Busting Games:

Acronym Ball: Bring a small foam ball or several balls into a design meeting and encourage participants to throw the ball at the next person who uses an acronym without defining it.

Jargon Dictionary: (for larger groups)

- Have an engineer in the group define "carrying capacity," ask for other definitions, especially from environmental consultants.

- Have an environmental consultant, cost consultant or urban planner define "stack effect," ask for other definitions, especially from an architecture or an engineer.

- Ask an architect to define "anaerobic digestor," ask for other definitions, especially from an engineer.

- Ask a cost consultant or urban planning student to define "clerestory," ask for other definitions, especially from architects.

- Ask a cost consultant, landscape architect, or environment consultant to define "d mmensification," ask for other definitions, especially from urban planners.

- Ask people in one discipline to shout out a bunch of common acronyms in their field and then ask others to guess what those acronyms stand for.

APPENDIX 4: Tools

This appendix is a summary of tools that can be employed in the facilitation role in different contexts. A hyperlink is provided that provides more detailed information on the application and purpose of each tool.

4.1 Process Design Tools

1. Five Ps of Meeting Preparation	This tool outlines five basic areas to cover when designing or preparing to facilitate a meeting: Purpose, Product, Participants, Probable Issues, and Process. http://www.iaf-methods.org/index.php?module=iafmethods_tool&func=display&iafmethods_tool_id=106
2. Building Great Agendas	A concise and practical set of guidelines for creating an effective meeting agenda to ensure that the meeting serves its purpose: http://www.3m.com/meetingnetwork/readingroom/meetingguide_building.html
3. Meeting Co-Design	An approach to meeting design and preparation that involves a collaborative approach to agenda creation between facilitator and participants. This tool can also serve as a guideline for the co-design of broader group processes or design processes. http://www.iaf-methods.org/index.php?module=iafmethods_tool&func=display&iafmethods_tool_id=209
4. Dynamic Facilitation	A highly participatory and less structured tool for guiding decision-making and moderating group dynamics. Dynamic facilitation invites participants who are most passionate about an issue to open the discussion and then captures the essence of participant comments on flip charts while continually probing for new solutions. http://www.tobe.net/papers/choice99.html
5. Facilitation 101	A tool that provides a conceptual foundation for facilitation as well as a practical overview of all of the essential roles and responsibilities of a facilitator. http://www.iaf-world.org/i4a/pages/Index.cfm?pageid=3292

6. Open Space Technology	A tool for meeting design and guiding content that provides a self-organizing model for meetings and events. Open space technology creates an unstructured space in which participants are invited to collectively build and manage an agenda and direct conversation towards the issues that they are most passionate about. http://www.thataway.org/exchange/resources.php?action=view&rid=1574
7. Time Share Agenda Creation	A meeting design tool that provides some simple guidelines and exercises to help the group design and take ownership over the timeline of the meeting or event. http://www.iaf-methods.org/index.php?module=iafmethods_tool&func=display&iafmethods_tool_id=189
8. SMART	A tool used in project management at the project objective setting stage. Helps evaluate if the objectives that are being set are appropriate for the individual project. http://en.wikipedia.org/wiki/SMART_%28project_management%29

4.2 Process Management Tools

9. Minutes and Group Recording	A tool that provides general guidelines and practical tips on how to ensure that meeting proceedings are being recorded in an efficient way that provides the group with the information they need after the meeting. http://www.3m.com/meetingnetwork/readingroom/meetingguide_minutes.html
10. Room Arrangement	A basic arranging tool to help the facilitator determine what physical orientation and layout of space is most conducive to the nature of the planned meeting or event. http://www.3m.com/meetingnetwork/readingroom/aa_ae_me_leverage_logistics.html
11. Seating Arrangements	This tool provides a conceptual foundation and general guidelines for arranging seating and also presents a range of specific seating arrangement models for different meeting contexts. http://www.llrx.com/columns/guide59.htm

4.3 Guiding Content Tools

12. Appreciative Inquiry	An approach focused on deepening the understanding of an issue through positively oriented questioning. AI aims to discover the assets, capacities, strengths, successes, and other positive elements of an issue so that solutions or responses to the issue build on what is working best. http://www.thataway.org/exchange/resources.php?action=view&rid=1579
13. Six Thinking Hats	A creative thinking tool that describes a process of deliberately adopting a particular approach to a problem as an implementation of parallel thinking. Six different approaches are described and each is symbolized by the image of putting on a coloured hat to adopt a different thinking style. http://en.wikipedia.org/wiki/Six_Thinking_Hats
14. Brain Writing	An approach to creative thinking in which participants generate and record ideas individually and then pass their ideas on to another participant who uses the ideas as a trigger for new creative thoughts. http://www.mycoted.com/Brainwriting
15. Classic Brainstorming	A simple set of guidelines that outlines a step-by-step approach to brainstorming. This tool helps to bring strength and clarity to an exercise which has become a generic label for any creative thinking process. http://www.mycoted.com/Classic_Brainstorming
16. The Concept Fan	A tool for discovering alternative approaches to a problem when the group has discarded all obvious solutions. It develops the principle of 'taking a step back' to get a broader viewpoint. http://www.mycoted.com/Concept_Fan
17. Consensus Mapping	A tool for process design that enables groups to arrange a network of up to 20-30 activities into a sequential plan of action through a collaborative, consensus-based approach. http://www.mycoted.com/Consensus_Mapping

18. The Decision Ruler	A tool for developing a group understanding of different levels of support or dissent in relation to a decision. The Decision Ruler is both a tool to aide in a specific decision, as well as a tool for building general team capacity for decision-making. http://www.iaf-methods.org/index.php?module=iafmethods_tool&func=display&iafmethods_tool_id=274
19. Prioritizing with Coloured Dots	A highly participatory tool for prioritization and decision-making that involves participants sticking different coloured dots next to items or issues to indicate their level of support or engagement in relation to each item: http://www.iaf-methods.org/index.php?module=iafmethods_tool&func=display&iafmethods_tool_id=102
20. Hand Signs	Tools that can significantly increase the efficiency of meetings by providing participants and facilitators with another visual layer of information to complement spoken communication. Hand signs can be used for decision-making, to indicate a desire to speak, to indicate that time is running out, etc…
21. Opportunities and Threats Grid	A tool for contextualizing the challenge or opportunity that the group is working on. The tool provides a simple set of structured questions, designed to help the group capture a common understanding of the opportunities and threats that they face. http://www.iaf-methods.org/index.php?module=iafmethods_tool&func=display&iafmethods_tool_id=232
22. Polar Gestalt Mapping	A clustering tool that helps the facilitator and group give shape and structure to a large number of creatively generated ideas, which serve as a foundation for decision-making or other forward action. http://www.iaf-methods.org/index.php?module=iafmethods_tool&func=display&iafmethods_tool_id=237
23. World Café	A tool that provides a framework for participants to consider the same fundamental question in small groups while at the same time, remaining connected to a larger shared conversation. This tool creatively combines many of the strengths of large and small group dynamics, and can be an effective way to explore complex and challenging questions. http://www.thataway.org/exchange/categories.php?cid=61&last_selection=category

4.4 Reflecting Participant Contribution Tools

24. Concept Mapping	A tool for visualizing the relationships between different concepts in a complex system. A concept map is a diagram in which concepts are connected with labeled arrows to form a downward-branching hierarchical structure. http://en.wikipedia.org/wiki/Concept_Map
25. Graphic Facilitation	A tool for reflecting the content and process of a meeting in words and images, which serve as short-term collective memory for the group. Graphic facilitation is particularly useful in the context of integrated design because it can help to provide a common language and focus point for participants from different backgrounds. http://www.thataway.org/exchange/resources.php?action=view&rid=1128
26. Parking Lot	A tool for guiding content and reflecting content that helps the facilitator and group to identify and capture important ideas that do not fit into the present discussion, but which should be addressed in the future. http://www.iaf-methods.org/index.php?module=iafmethods_tool&func=display&iafmethods_tool_id=122
27. Rotating Flip Charts	A tool for reflecting the work of small groups and efficiently communicating the outcomes of that work with the larger group. This tool is a flexible alternative to the conventional small group report-back process. http://www.iaf-methods.org/index.php?module=iafmethods_tool&func=display&iafmethods_tool_id=104

4.5 Moderating Group Dynamics Tools

28. Sample Ground Rules	A tool for meeting design and moderating group dynamics, which provides a broad range of ground rules for different meeting contexts and processes. Ground rules can help the facilitator and the group ensure stronger communication, prevent conflict, and generally maintain a productive meeting environment. http://www.thataway.org/exchange/resources.php?action=view&rid=1505
29. Active Listening	An approach to listening in dialogue or discussion that strengthens mutual understanding. Active listening functions through a simple exercise in which listeners repeat back to a speaker the essence of what they heard the speaker say. http://www.thataway.org/exchange/resources.php?action=view&rid=1461
30. Cog's Ladder	A tool for team development that describes five basic stages that small groups must work through sequentially in order to work effectively together. These stages are: the polite stage, the why we're here stage, the power stage, the cooperation stage and the esprit stage. http://en.wikipedia.org/wiki/Cog%27s_Ladder
31. Conflict Resolution	A broad approach to resolving conflict that employs many specific tools. This resource provides a rich foundation of conflict resolution, as well as 12 skills central to conflict resolution. http://www.crnhq.org/cr_trainers_manual.htm
32. Conversational Terrorism	A humorous tool to help facilitators and participants quickly identify conversational tactics that are focused on power plays, delaying, defense, etc., rather than direct communication. http://www.vandruff.com/art_converse.html

33. Dealing With Air Hogs	A simple set of guidelines for dealing with difficult participants who consistently take up too much space in meetings. The tool focuses on four simple techniques which can be used before, during and after meetings. http://www.iaf-methods.org/index.php?module=iafmethods_tool&func=display&iafmethods_tool_id=354
34. Non Violent Communication	A tool for strengthening group communication by helping participants reframe how they express themselves and how they hear others. This tool guides participants in focusing their consciousness on what they are personally observing, feeling, needing and requesting. http://www.cnvc.org/bookchap.htm
35. The Talking Circle	A meeting design and moderating group dynamics tool, which is designed to break away from linear models and deepen and focus conversation on exploring and learning as a group. This tool could be effective early in a design process to help the group carefully learn about each other's hopes for the project, or could be a way of carefully working through a difficult situation. http://www.thataway.org/exchange/resources.php?action=view&rid=1561
36. The Pitfalls of Dialogue	A tool for helping facilitators to identify unhealthy and unproductive dynamics in group dialogue. The tool is particularly useful for facilitators and groups working in a highly participatory or consensus-based model. http://www.thataway.org/exchange/resources.php?action=view&rid=313

4.6 Training and Team-building Tools

37. Focus Conversation	A tool for opening a meeting and introducing participants. This tool provides a simple set of questions and exercises designed to build focus and energy at the start of a meeting. http://www.iaf-methods.org/index.php?module=iafmethods_tool&func=display&iafmethods_tool_id=276
38. The Johari Window	A team building tool designed to help team members better understand their interpersonal communication and relationships. The tool involves an exploration of personal qualities that are known to the self, and personal qualities that are known to the group. http://en.wikipedia.org/wiki/Johari_window
39. Mission Pyramid	A highly participatory approach to developing a collective mission or vision, which begins with individual articulations of mission or vision, and then builds those individual articulations towards a collective articulation through a process of small group discussion and decision-making. http://www.iaf-methods.org/index.php?module=iafmethods_tool&func=display&iafmethods_tool_id=117
40. Opportunity Consensus Statement	A visioning tool which helps the group to develop a common understanding of what the opportunity is and is not, and to develop a clear vision for the full life-cycle of the project. http://www.iaf-methods.org/index.php?module=iafmethods_tool&func=display&iafmethods_tool_id=221
41. The Orming Model	A tool for team development that explores the forming – storming – norming – performing phases of team dynamics, and clearly presents many of the inevitable steps that a team must work through in order to grow and function effectively. http://en.wikipedia.org/wiki/Forming-storming-norming-performing

4.7 Evaluation Tool

42. The Debriefing Wheel	A tool for closing and quickly evaluating meetings or events. The Debriefing Wheel involves a collective debriefing discussion guided by a simple visual and five specific reflective questions. http://www.iaf-methods.org/index.php?module=iafmethods_tool&func=display&iafmethods_tool_id=190

APPENDIX 5: Interviews

Interviews were conducted from March 27 – April 6, 2007. Because of the rapidly evolving nature of IDP, the interview process was considered to be a key aspect in our background research and as such, we carefully selected a mix of experience and perspectives in the fields of IDP, facilitation, and adult education

Name	Skill Set
Nils Larson, IISBE	IDP GENERAL
Julian Griggs, Dovetail Consulting	FACILITATION AND EDUCATION: Julian is a leading facilitation practitioner. He developed and leads a training course in facilitation for the Hollyhock Leadership Institute. Over the last 15 years Julian has worked on a wide variety of consulting projects for all levels of government, First Nations, non-profit organizations, and the private sector.
Bill Reed, Integrative Design Collaborative	IDP GENERAL: Bill Reed, a practicing architect for more than 25 years, is one of the nation's leading experts on green design. He approaches regenerative design as the framework from which all technical and functional decisions are derived; the ultimate goal being the improvement in the overall quality of the physical, social and spiritual life of our living places.
Ray Cole, UBC (Expert Advisor)	ARCH IDP, EDUCATION: Dr. Ray Cole is a Professor and Director of the School of Architecture and Landscape Architecture at the University of British Columbia. He has been teaching environmental issues in building design in the Architecture program for the past 30 years.
Vivian Manasc, MI Arch. (Expert Advisor)	ARCH IDP: Vivian Manasc is a Senior Principal of Manasc Isaac Architects, one of Edmonton's largest architectural practices. She has worked extensively in the area of designing outstanding sustainable buildings for public and corporate sector clients, focusing on the facilitation of the sustainable design process.
Vince Verlaan, Holland Barrs (Expert Advisor)	FACILITATION: Vince Verlaan excels in designing and using participatory tools and creative processes to improve strategic planning, organizational development, public policy, applied research, community-level projects, education, and service delivery.
Barbra Batshalom, Green Round Table	IDP GENERAL, EDUCATION: Barbara Batshalom is the founder and Executive Director of The Green Roundtable (GRT) and NeXus, independent non-profit organizations whose mission is to mainstream sustainable development. Under her direction, GRT organizes and facilitates a forum for proactive dialogue among diverse professions, and provides resources and expertise to the development, design and construction community.

Wilf Bean, former director of the Coady International Institute.	ADULT EDUCATION: Dr. Bean, Coordinator of the Coady Institute's Diploma Program from 1987-1998, is an expert in employing adult education strategies for community-based development. Currently, the Program Director for the Tatamagouche Centre, he is an Associate of the Institute and teaches in the areas of Emancipatory Adult Education and Training of Trainers. He has worked extensively overseas throughout Asia and Africa, in such countries as India, Nepal, Bangladesh, Guatemala, Kenya and Tanzania.
Tana Paddock, CoCo	FACILITATION: Tana's expertise is in helping diverse groups of people think and work together effectively across social, organizational and professional differences. She has worked on a wide range of initiatives in Canada and the U.S. in areas such as economic development, education reform, affordable housing, and micro-enterprise development. She was contracted to facilitate the integrated design charettes for one of the projects in CMHC's Net Zero Energy Healthy Housing (NZEHH) Pilot Demonstration Initiative.

APPENDIX 6: Literature Review

An initial list of relevant literature from the three fields of inquiry was developed by the consultant team in collaboration with the key points of contact from the Steering Committee. Highlights of the literature that were reviewed include the following titles:

Title	Author	Subject
Whole Systems Integrative Design (draft)	Bill Reed et al	IDP
IDP Roadmap	BPW and Stantec	IDP
CMHC IDP manual	Alex Zimmerman and CMHC	IDP
Training for transformation	Anne Hope and Sally Timmel	Ed.
Effective Group Facilitation: Reference Manual	Julian Griggs and Hollyhock Leadership Institute	FAC
Places to intervene in a system	Donella Meadows	Ed.
Dancing with systems	Donella Meadows	Ed.
Integrative Design Collaborative website	Bill Reed and IDC	IDP
The Change Handbook: chapters on appreciative inquiry; collaborative loops;	Peggy Holman	Fac.
Art of Hosting and Convening Meaningful Questions and Conversations	Art of Hosting (organization)	Fac.
Dynamic Facilitation	Tana Paddock and Jim Rough	Fac.
Int'l Ass of Facilitators Methods database	On-line resource with many authors	Fac.
The Art of Chaordic Leadership	Dee Hock	Fac.
Appreciative Inquiry with Teams	Gervase R. Bushe	Fac.
Collaborative Loops (from Change Handbook)	Dick Axelrod and Emily Axelrod	Fac.
Dialogue and Deliberation (from Change Handbook)	Sandy Heierbacher	Fac.
Dynamic Planning and the Power of Charettes (from Change Handbook)	Bill Lennertz	Fac.
The World Café, Shaping our Futures Through Conversations that Matter	Juanita Brown with David Isaacs	Fac.
Overview of the Change Lab	Pioneers for Change	Fac.

Ed (Education), Fac (Facilitation), IDP (Integrated Design Process)