



**PDHonline Course P138 (4 PDH)**

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# **Consultants and Owners from the Others Perspective - Avoiding Conflict and Forming Strong Relationships**

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## **Consultants and Owners from the Other's Perspective – Avoiding Conflict and Forming Strong Relationships**

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### **Course Content**

#### Introduction

Frequently, Consultants and Owners do a single project together, then part ways. Why? For others, long-term relationships can come to an abrupt end. Why? Others muddle along but the road remains rocky. Why? This course considers two perspectives – the Consultant as viewed by the Owner, and the Owner as viewed by the Consultant to understand how perceptions develop that create these difficulties. Once understood, this course develops strategies to minimize problems.

Owner's and Consultants have typical perceptions of each other. When these perceptions become poor (as they often do), there are negative consequences for both the Consultant and it's customer (the Owner.) A continuum of events can result from minor nuisance to the more serious, as well as loss of the business relationship. Poor perceptions are based on a variety of reasons. The primary reason is that one entity isn't the other; that is, one hasn't experienced the environment of the other and has conflicting demands placed upon them. The adage of walking in another's shoes is the idea. (The author has worked extensively in both worlds, and brings a unique perspective to effective Owner/Consultant relationships.)

Unfortunately, poor perceptions can and often become reality and affect the project, relationships, and each other's business. To resolve issues that result in poor perceptions, this course addresses the following:

1. Common poor perceptions of one towards the other and the consequences
2. Underlying conflict that often results in poor perceptions
3. Tools that can be used to minimize conflict
4. A strategy for minimizing conflict to strengthen Owner/Consultant relationships – applying the toolkit
5. A strategy for recovering from conflict or a poor perception

Once we have mastered the above, only then can we reap the rewards of a good perception and a mutually beneficial Consultant/Owner relationship. Although we can never totally eliminate perceptions and conflict, we can do our part in minimizing conflict to the betterment of our Owner/Consultant relationships. To be certain, success depends on both parties – we are beholden to each other.

To further instill concepts taught in this course and to offer practical application, the course examines several case studies based on real situations from the Instructor's experience at the end of the course.

Although this course is geared to the Architectural/Engineering – Owner relationship, elements are also useful to other consultants and construction providers.

### Typical Perceptions

The pool of possible perceptions between Consultants and Owners is extensive. The root of any problem, whether technical or interpersonal, must be understood if we hope to find resolution. The first step in resolving any relational problem, including poor Consultant/Owner relationships, is to examine and understand the perceptions of the other. Often, understanding the root of the perception, real or imagined, can soften the perception, improve working relations, and support repeat collaboration.

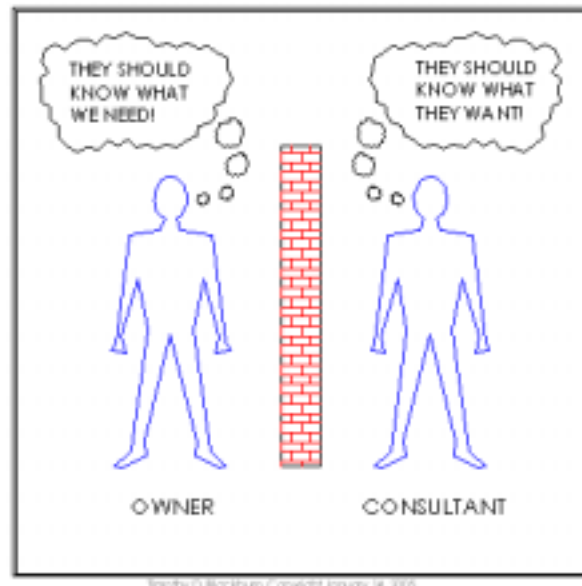
### *The Owner from a Consultant's Perspective*

First, the following are a few typical poor perceptions of the Consultant towards the Owner and underlying causes of situations that can precipitate such perceptions, and ways to improve:

1. "The Owner is unable to make up its mind." This perception is close to the truth with many Owners, especially larger companies. The Owner can improve this perception by assigning a strong and experienced project manager to liaison with the consultant. However, the Consultant must understand that the wheels of bureaucracy turn slowly, and are often hindered by conflicting internal politics. Also, there are often frequent changes in the Owner's staffing and business environment that make this perception apparent.
2. "Owner's don't want us to make a profit." Some Owner's are resistant to entertaining even legitimate changes, and fear the Consultant is overcharging the project, attempting to take advantage at every turn. Conversely, the Consultant should understand there are competitive pressures to install capital at the lowest cost, and the Owner would not be diligent if it did not scrutinize charges. The Consultant, therefore, should not resist in maintaining competitive commercial terms in partnership with the Owner or proposing in a competitive environment (within the bounds of the law) – the Consultant has a stake in the Owner's success. Unfortunately, Consultants do sometimes take advantage of opportunities to extract a greater profit from the Owner, such as for changes, emergencies, and sole-source work.
3. Inadequately funding projects – "There never seems to be enough money to do it right, but always enough to do it over." Owners often find themselves in difficult situations when yearly budgets are established – little detail, unavailable funds, or inadequate time to outsource preliminary engineering and estimating, and uncertain timing. This often results in projects being underfunded, and the design therefore must conform to the budget. The Owner's representative is limited in the ability to request additional funding, or has his or her performance appraisal linked to first-time estimate accuracy. Working with Owners in such a situation

- requires creativity, and when successful, can result in a positive perception of the Consultant and repeat work.
4. “Deep pockets . . .” Consultants often do not recognize the financial limitations of Owners, and design systems in a manner that confirms this perception. Although many Owners are successful financially, they will not remain so if they expend capital without discretion. Expensed items go against the bottom line in the year in which the work is performed, and capital items are depreciated (15 years for most equipment, and usually 30 years for facilities) – that is, every dollar expensed in a year reduces the profit for that year by about the same amount (discounting tax implications), and every dollar capitalized reduces the profit by that amount divided by the depreciation term.
  5. Financial liability: Often, even when mistakes are made in design or construction, the Owner bears the primary financial liability. Penalties and reduced fees seldom adequately compensate for delayed schedules, long-term poor maintainability, and reworks. As well, negligence or design errors are often arguable and difficult to prove. While the perception that the Owner holds the highest liability is generally true except for cases of clear gross negligence, it is an unfair perception and can result in the Consultant not being as careful as needed to protect its customer.
  6. Unreasonable demands: Some of the demands of the Owner can seem unreasonable, such as demanding quick turn around, starting the project without adequate scope, not paying for additional services, etc. However, the Consultant needs to develop an understanding of the underlying causes of the demands. Is the Owner under schedule constraints? Are there product to market issues?
  7. Technically inept: Many Owners ask for designs that the state-of-the-art can’t support. Or, the Owner may not understand all the technical aspects of a project to properly draft a Request for Proposal. Often, the Owner does not have a full multi-discipline staff – if it had such, the Owner would not require the services of the Consultant. Unlike yesteryears, fewer companies maintain extensive in-house design capabilities. Conversely, with experience, astute Owners can acquire a working knowledge of major engineering disciplines that can enable them to manage the outsourced Consultant effectively (see separate course).
  8. Unable to properly predict workload. Many projects are started, and then stopped – some at advanced stages. This is not always due to the ineptness of the immediate Owner’s management. There are simply many economic dynamics that influence this. Unfortunately, this contributes to the “feast or famine” situations in which Consultants find themselves – being overworked, or working under a cloud of layoffs. One of the reasons Consultant staff move around to other companies is that they drift to the workload. Consultants can minimize this effect by establishing relationships with their Owner counterparts, understanding their business, and tracking business trends. Diversifying is also a tonic for an unpredictable workload.
  9. Should know scope in detail ahead of time in order to propose/price the project. As noted above, decisions to pursue a project are often made with short notice, with limited proper resources, and a minimal scope. This can result in a nebulous or poorly thought out scope of work. Consultants can minimize this by investing

some time during the proposal stage to properly understand the project scope and educate the Owner. And, Owner's can assist, as much as reasonably possible, by effectively scoping projects.



#### *The Consultant from an Owner's Perspective*

The above illustrates common perceptions of the Consultant towards the Owner. However, the basket of perceptions of the Owner to the Consultant are as varied. These perceptions are often in contrast, and when combined can yield a less than ideal working relationship. Owners often hold the following perceptions towards Consultants.

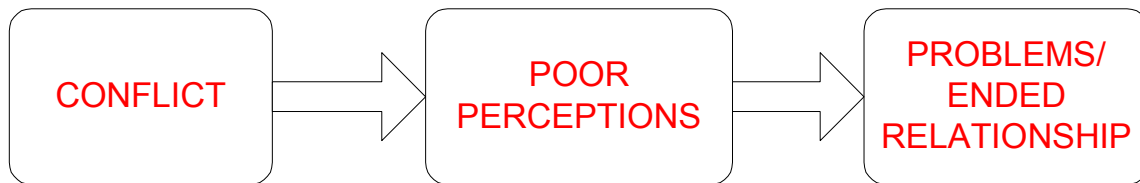
1. Should know the scope. The Owner often lives in a world that focuses on its product, and its core business usually isn't the deliverable of the consultant. Also, the Owner may experience a familiarity with its business without recognizing the Consultant doesn't share the same experience. Yet, Consultants aren't mind readers, and may not be better equipped to establish the fundamental scope – this should come from the Owner.
2. Has vast experience in exactly the same type of work. Many less sophisticated Owners (and certain non-engineering internal customers) do not understand the complexity of an engineering project. This can result in not realizing that each project is in effect a prototype, and few projects are precisely identical. Therefore, Owners can perceive hesitations or issues that arise and are normal in developing custom engineering designs as incompetence or a lack of experience.
3. Leaves out scope. Projects are sometimes completed before the Owner realizes an important scope element is missing. Occasionally, it is a crucial scope element related to a primary success criteria. The Owner may then develop the perception that the Consultant was negligent or inept. While Consultants must ensure they properly understand key scope requirements and maintain quality checks and balances, Owner representatives should focus on scope as well; no one wins when this situation occurs.

4. No errors. Companies that would not think of sending out a product untested and find iterations of development and tweaking acceptable also expect a custom, one-of-a-kind project to be error free. The truth is that whenever imperfect human beings do tasks in an imperfect world an imperfect project will result. That being said, however, never excuse gross negligence or safety concerns.
5. Financial liability. This perception heading is repeated from above, but has a different concept when viewed from the Owner's perspective and can be more devastating. Some Owners believe the Consultant must fund the slightest omission or missing scope element. This can result in a heated and difficult ending to an otherwise successful project. Not understanding the business of a Consultant, it is easy for an Owner to make unreasonable demands even the Consultant practices ordinary care. In that the cost of the A/E may only be 6-14% of the project, even small project problems that the Consultant reimburses can eliminate the Consultant's profitability. All the Consultant has to sell is its resources, and recovering financially from such situations can take a long time. Conversely, the Consultant should never be excused for negligent omissions – that is why the Owner must insist on liability insurance.
6. Too slow. Consultants often have conflicting demands, or the Owner may give a notice to proceed in a time of peak workload. The Owner can perceive this as the Consultant "dragging its feet." Or, the Owner can have unrealistic expectations of the effort needed to complete a project. On the other hand, the Consultant should be cognizant of the Owner's schedule constraints – again, the Owner's success is to the benefit of the Consultant in a long-term relationship.
7. Maintainability. Owners often perceive Consultants as being ignorant of the needs of maintenance personnel. Sensors may be located in out of reach locations. Oiling points may not be easily accessible. Ability to service or replace major components may be hindered. Unfortunately, this perception is often based on reality. While an engineer may become proficient at designing otherwise robust systems, he or she quickly moves on the next design project without observing the system in operation over time, and mistakes can repeat. Listening to the maintenance support staff is a crucial skill to avoid this.
8. Accurately reflect conditions at start and end of project. When hidden conditions are discovered during construction, this perception can occur. Or, when someone reviews "as-built" drawings created by the Consultant and finds disparity, the attention to this important detail is questioned. While field investigation is important and necessary, the extent is debatable depending on the project. However, the Consultant should include in its proposal necessary and reasonable fieldwork, and advise the Owner when there is a likelihood there could be unexpected discovery so the Owner can retain contingency to cover. The Consultant should always offer in its proposal to update documents to as-built conditions at the end of a project, usually drawing on the Contractor's redlines, change notices/orders, and field observations. However, the Owner should not expect the Consultant to have performed construction observation and field verification for 100% accuracy in as-built or record documents.

To this point, we have learned about the perceptions that can arise from the two perspectives, as well as some practical considerations. But perceptions at their core are much deeper in concept. Perceptions are often formed from that only too common human vice – conflict.

#### Conflicts that Create Poor Perceptions

Perceptions usually result from conflict at some level. (There remain, admittedly, intuitive perceptions that result from biases and prejudices that are difficult to link to specific conflicts, at least those within our control.) It is important to understand the fundamentals of conflict if we hope to improve perceptions in our Owner/Consultant relationships.



A conflict may not be immediately noticeable or apparent, and can express itself as follows:

1. Major or minor: Conflicts can be major, and result in severing relationships, lawsuits, or even bankruptcy. Major conflicts are a result of actual or perceived major situations, such as a failed system performance, financial ruin, or injury/death. Minor conflicts also are a result of actual or perceived situations, but can have an accumulative detrimental affect on the relationship. These could result from a slight overcharge or underpayment, or blame for a less than perfect outcome. Both major and minor conflicts can result in a severed relationship and repeat work, while a major conflict can have even more severe consequences, such as litigation and bankruptcy.
2. Accumulative: Conflicts, especially minor ones, have a way of accumulating in the psyche. The conflicts, when totaled, can have as much a devastating affect on the relationship as a major conflict. This can lead to a breaking point, when one party “just can’t take it anymore.” Consultants (especially) and Owners should keep a short list of conflicts, and attempt to resolve conflicts as quickly as possible.
3. Spoken or Unspoken: Conflicts can be spoken or unspoken. Many relationships have ended with no warning signs. Quietly, the Owner no longer calls on the Consultant to do repeat work. Quietly, the Owner’s projects lose the interest of the Consultant. Or, the project can be filled with arguments and accusations.
4. Active or Passive: Some conflicts are obvious, with the situation quickly being brought out into the open. Others are passive – that is, there seems to be a less cordial relationship between representatives. Perhaps there are more challenges to change requests, and a sense of less trust.



Whether the conflict is major or minor, or has accumulated, is spoken or unspoken, active/aggressive or passive, conflict tends to take on a life of its own. In effect, perceptions become reality in that the consequence is equally detrimental. Some perceptions are reality, and corrective action is needed immediately to mitigate the conflict. But even perceived perceptions are harmful and taint the working relationships. The end of conflict can never have a good outcome if not resolved, and can translate in lost profitability for both parties. There is, therefore, an incentive to minimize and resolve conflict as quickly as possible therefore before hardness sets in. What is at the heart of conflict?

### The Heart of Conflict

At the core of any business relationship is the interpersonal relationship. While we can learn the technical side of engineering (knowledge), it takes wisdom to practice it in every-day life. Humans are complex creatures that are driven by need and desire. At its essence, conflict can be defined as a lack of a perceived or real need or desire at the most basic of human levels (when discounting prejudice). Conflict can also result from an anticipated lack of a need or desire being met, or an impending harmful event. As it relates to the Owner/Consultant relationship, staff are ultimately graded on their performance within their organization. If an Owner's representative senses a problem in the project, or a slippage in the schedule, or budget discrepancy, he or she will feel a sense of conflict in that eventually the event could have personal consequences. The personal consequences may not even be direct – a sense of integrity in the individual may sense conflict as strong as if it were personal in that his or her company will be affected or a moral imperative is about to be violated. On the other side, if a Consultant's representative senses a lawsuit, or their fee not being reimbursed, etc., he or she also will have internal conflict. These conflicts at the deepest human emotional level manifest themselves in the form of perceptions that have negative consequences for both parties if not properly managed.

But before we explore practical systemic approaches to mitigating conflict and resulting poor perceptions, it is important to understand the fundamental causes of conflict between Owners and Consultants. Once these causes are understood, we can develop strategies to minimize this problem.

### Common causes of conflict between Owner's and Consultants

1. Differing objectives or goals. There is one single and clear goal shared by the entities – to make a profit. Only a few of us would do our jobs full-time as a hobby. But, we are selling different products to obtain our profit objective. For example, the higher percent a consultant has billable hours and the higher the mark-up, the more the profit. On the other hand, the lower the consultancy fee, the higher the Owner's profit. These are always in tension, only balanced by free market forces.

#### **Common Causes of Conflict**

- ✓ Differing objectives or goals
- ✓ Different measures of success
- ✓ Lack of knowledge
- ✓ Lack of expertise
- ✓ Unrealistic Expectations
- ✓ Interpersonal/Cultural
- ✓ Integrity
- ✓ Lack of proper communication
- ✓ Failed Expectations



If an Owner consistently pays higher fees than its competitor, it will eventually lose market share. If the Consultant excessively cuts its fees, it is at the risk of violating a compete clause in some jurisdictions, or losing money and eventually going out of business. The motivation for an Owner to pay fair fees is to maintain a long-term relationship, but it doesn't sometimes observe this. Conversely, the Consultant will benefit as well for the same reason; it may gain a huge profit in the short-term but will not reap long-term rewards. An imbalance in either direction will certainly result in conflict.

Other differing goals and objectives manifest themselves in the ultimate end product. Perhaps stating the obvious, the Owner's end product is its product. The sole purpose to do the project is in response to a business or regulatory pressure that is linked to the final product. The ultimate goal of the Consultant sometimes is to complete the project within the proposed man-hours and avoid paying damages – while making a profit is important, if the ultimate focus is not to deliver a successful Owner's product or regulatory requirement, conflict will result.

2. Different measures of success: Owner and Consultant staff are often appraised on differing measures. For example, the Owner's staff are graded on schedule and budget compliance primarily, while Consultants are graded on accuracy and profitability (coming within their proposed man-hours.) These clearly different measures weigh heavily on staff. Yet, each side depends on the other in part for success. When either the Owner or Consultant creates difficulty in meeting the other's individual success on which they are graded, conflict will arise.
3. Lack of knowledge. The Owner may not have an adequate technical understanding of the project to properly manage the consultant. The Consultant may not have adequate understanding of the Owner's process, product, and constraints to properly engineer a solution. Either scenario (or both) will create conflict. It is risky to have individuals involved who don't know what they don't know. It is foolhardy to have individuals involved who don't know what they don't know, but assume there is nothing else to learn. Such individuals can create nearly impossible barriers to success and create continued sources of conflict unless properly managed (or time rectifies.)
4. Lack of expertise. As noted previously, the reason Consultants are used is a lack of internal resources, qualified or otherwise. Therefore, many Owners need support in many of the core engineering disciplines. Consultants, although at a minimum are expected to have core expertise, often lack the level of Owner-specific understanding in that the Owner's business is unique. It is unacceptable, however, if a lack of proper core expertise exists within the Consultants ranks. Disciplined engineers should know the fundamentals of their trades. Anything less is a certain order loser. And, the Owner's representative should have a firm grasp on project management skills and the needs of internal customers.
5. Unrealistic expectations. Unrealistic expectations are varied. These expectations can include issues related to schedule, budget, and capabilities.
  - a. Schedule. Many Owners themselves are under unreasonable timeframes. Consequently, the Owner passes these on to the consultant. The "rush-

- rush” atmosphere alone stimulates conflict. As well, when jobs are rushed beyond reason, there are often quality problems that result, which add further fuel to the conflict.
- b. Budget. As with schedule, Owners are often under difficult budget constraints. Rarely are “blank checks” available for anyone, especially given the increased economic pressures today. Trying to design to any budget is stressful, but to an impossible budget is agonizing. Problems with finished projects can also add conflict – problems could have been mitigated if adequate funding were available for robust solutions. Conflict also arises whenever the consultant’s fee begins to be exhausted without designs being complete, or issues being resolved.
  - c. Capabilities. Unrealistic expectations regarding capabilities can also result in conflict. These false impressions of the capability of an engineered system can result from lacking technical/management ability (understanding), to unreasonable demands on engineering solutions.
6. Interpersonal/cultural. As noted before, humans are complex organisms, with motivations spanning the near infinite. There are plethoras of external circumstances on individuals that can boil over into conflict in the Owner/Consultant relationship. As well, there are personality traits that can conflict, along with religious and cultural traditions. Without the application of the “Golden Rule” (do unto others as you would have them do unto you) and acceptance of differences, conflict can arise that will affect larger relationships between companies. Conflicts that arise at the purely interpersonal level are perhaps the most difficult to manage and mitigate. These can even extend to prejudices.
  7. Integrity. There is no substitute for integrity. Integrity can be defined as doing what is right no matter the cost. The integrity of any company is merely the integrity of the sum of its parts – its people. Integrity stems from the character of individuals. Someone once said that the level of a person’s character could be described as what he or she does when no one is watching. Integrity pays a Consultant what it is due; it doesn’t ask for more than it is due. Integrity minimizes the cost of the project while meeting requirements. Integrity is safety. Integrity treats individuals with respect and dignity. Integrity completes the project to a proper conclusion even when fee is exhausted. When integrity is lacking, real or imagined, conflict will result. Trust will fade. Relationships will be broken and the Owner will move on to another Consultant, or the Consultant will find another client.
  8. Lack of proper communication. Communication finds its way in many forms. We communicate through speech, mannerisms, and written form. In the Owner/Consultant relationship, poor communication is as varied.
    - a. Don’t speak the same language. Both sides usually have a litany of acronyms and terminologies that may not be familiar to the other. Some terminologies are specific to an industry sector, and others to the company itself. These terminologies can result in misunderstandings, and inadequate/improper scope – then comes conflict. Never assume

vernacular so common to one entity is common to or even understood by the other.

- b. Lack of established scope. Both entities can be guilty of not giving adequate thought and development of scope before quickly starting final design. Another flaw in developing scope is not including the proper staff in decisions. One of us is never smarter than all of us. When scope needs are not properly communicated, the likelihood of a successful outcome is small. Conflict from improper scope manifests itself in many forms and degrees of severity.
  - c. Documentation. The proper level of documentation is a fine balance – if inadequate or excessive, then conflict will result. Inadequate or erroneous documentation can result in needs not being met or improper installations. Excessive documentation can be perceived as one entity covering themselves at the expense of the other, or the extent of documentation requires laborious time and energy that is not available to properly review. Improper levels of documentation, excessive or inadequate, also are time-sensitive. Too much too early is inappropriate, and too little later to adequately scope the project to ensure success is also inappropriate. Conflict often results from improper or lacking documentation.
9. Failed Expectations: This source of conflict in many ways sums up previous causes. Whenever an expectation is not met, reasonable or unreasonable, conflict results. Obviously, some expectations are reasonable, such as the design solution properly working, and payments to the Consultant. Managing expectations is one of the most difficult challenges of the Consultant, and requires virtually every tool in its kit.

Like everything else in life and in nature, there are consequences to actions. Conflicts that are fueled from the above have sure consequences if not properly managed.

#### The End Result of Conflict

The consequence of conflict manifests itself in degrees of severity, from minor personal nuisance to the other extreme, death.

Personal nuisance - Profitability - Legal - Bankruptcy - Injury - Death

#### **The Conflict Continuum**

The Continuum scale shows the consequences of conflict, from a lowest impact to the highest.

1. Personal nuisance. The lowest consequence of conflict is personal nuisance. However, small issues can end relationships depending on idiosyncrasies of the individuals involved. Further, the accumulative affect discussed previously can have damaging consequences.
2. Profitability. The next level on the continuum is profitability. Because profitability is the primary reason the relationship exists, there is a tendency to

- place this consequence at the upper end of the continuum, creating a disproportionate weighting of this and conflict beyond what is reasonable. Profit impact is applicable to both entities. If the project isn't a success, the Owner can lose profit on that aspect of its business. If the Consultant doesn't receive adequate fee to cover costs, loss of profit will result. Continuing on such a path can lead to the next two phases of the continuum.
3. Legal. Litigation is unpleasant no matter the outcome or how strong the cause. Lawsuits that result from conflict are certain to dissolve most Owner/Customer relationships for indefinite periods.
  4. Bankruptcy. The two previous consequences can result in this – bankruptcy.
  5. Injury. Injury can result from improper designs and lack of safety during construction or while operating equipment.
  6. Death. The extreme consequence of conflict is death, the final step on the continuum. No one wants a person to lose a life in the course of constructing a project or from operating an unsafe engineering solution.

Notice that none of the above referenced loss of relationship – any item on the continuum may result in this. Therefore, each is important.

To this point, we have learned that poor perceptions damage relationships between Owners and Consultants. Poor perceptions result from conflict. Conflicts have real and damaging consequences. Now that we understand the source of many conflicts, we can begin to develop strategies to minimize the conflicts and strengthen our mutual relationships.

#### Minimizing conflict between the Owner and Consultant

Just as poor actions result in conflict that result in poor perceptions and damaged relationships, so do good and proper reactions yield conflict resolution, improved perceptions, and strengthened relationships.



The illustration from farming is applicable – we reap what we sow. If a farmer plants corn, he reaps corn – and lots of it. No matter how many times he plants corn, he will never reap soybeans. On the other hand, if he plants nothing, he reaps weeds. If we take proper action, we will begin to “reap” desired results. If we do nothing, we can't expect to reap the rewards, and things will probably worsen. We have another illustration from a mechanic's work. If we need to remove a nut from a bolt, we can't use a screwdriver – it's the wrong tool. Likewise, we must use the correct tools to minimize conflict.

How do we mutually do this? Obviously, we need to resolve conflict so that better perceptions will develop. There are several strategies we can employ in the

Owner/Consultant relationship to foster this, including effective communication, effective project management, robustness, proper staffing and training, and more. These collectively are described as a toolkit for minimizing conflict.

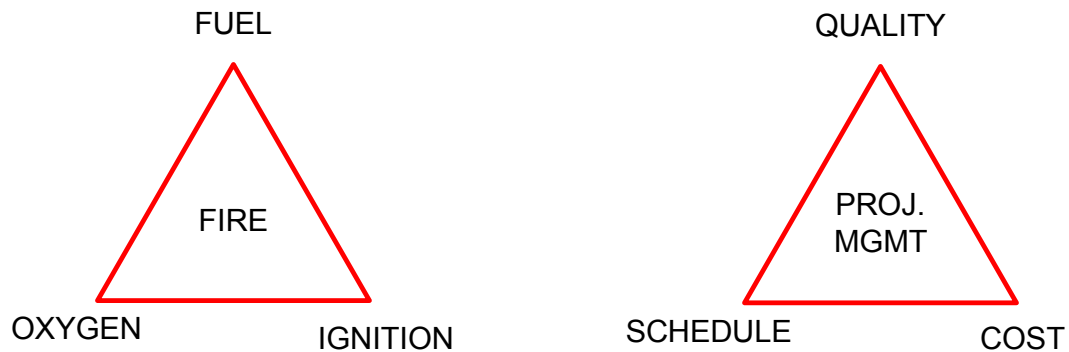
1. Effective communication

- a. Responsibility. The responsibility for effective communication is 100% on each entity. The “50-50” rule works no better in the working relationship than it does in marriage. When one is communicating to the other, he or she is fully responsible that the other understands. Conversely, when one is receiving communication, he or she is fully responsible that he or she understands. Anything less than this will result in poor communication and assumptions. We can practice this concept of full responsibility for communicating and understanding by exercising the following.
- b. Listening. Good listening is an art and requires discipline. Listening is more than hearing – it is trying to understand the other’s point of view.
- c. Repeating. In the complex process of delivering projects, repeating is essential. Often restating the same principle in a slightly different way is an effective way of ensuring what is heard was what was intended.
- d. Documentation. As mentioned previously, there is a fine balance between excessive or inadequate documentation. Documentation should be organized and sensitive to the receiving audience, with appropriate timing. It should be no longer than needed to properly communicate and remain sensitive to the project status. Usually, documentation is shorter in early stages and develops as the schedule progresses. Adequate time should be provided for review and comment. Designs should be thorough to minimize problems during construction or change orders.

**Minimizing Conflict Toolkit**

- ✓ Effective Communication
- ✓ Effective Project Management
- ✓ Robustness
- ✓ Staffing
- ✓ Training
- ✓ Selection process
- ✓ Other

2. Effective Project Management. Many conflicts could have been avoided if one or both sides had employed basic project management skills. In the “heat of the battle,” it is important to go back to the basics to ensure our process will deliver desired results. There are three core elements to effective project management; schedule, cost, and quality. Do you remember the fire triangle? If any element is missing, there can’t be a fire. Likewise, if any element of project management is missing, the project will not be a success.



- a. Schedule. Unfortunately, the idea of a schedule to many Owners is to give an end date and hope the project magically materializes. Some Owners view projects as an act of fiat – speak it and it appears. Others have weak schedules that simply consist of a series of consecutively linked bars with major durations with illogical tasks. Effective schedules identify all the major tasks associated with the project with assigned responsibilities. Tasks are logically linked with appropriate constraints. Some tasks are concurrent; others precedent; others with leads and lags. Another mistake is to first establish the end date, and then assign the tasks. The first step is to logically establish the tasks, relationships, and durations. If the end date then exceeds the desired completion date, more analysis on the schedule can be performed to determine more efficient task relationships and resources. A project cannot be successful and conflict cannot be avoided without having a properly developed schedule. Once developed, the schedule must be expedited. That is, an assigned individual must manage it. Much conflict results when schedules are not met and when there were no reminders along the way to complete certain tasks. The Owner should maintain a master schedule, and other assignees (such as the Consultants and contractors) should develop/maintain more detailed schedules with key milestone dates integrated into the master schedule.
- b. Cost. Success hinges on whether accurate projections of cost were made early. For the Consultant, this involves accurate projection of man-hours needed to complete the scope. For the Owner, it involves accurately projecting costs throughout the project implementation cycle. Unfortunately, estimating accurately and early is one of the Owner's greatest challenges and the most frequent source of internal conflict.
- c. Quality. Perhaps there is no less understood concept than quality. For many, quality is what they see when they are happy with the outcome of a project – it is that indescribable attribute that they only recognize when seen completed. The proper definition of quality is *conformance to specifications*. The project scope must conform to the requirements of the user or end product; the design must conform to the requirements of the project scope; the construction must conform the requirements of the



design. Quality is never inspected in (although commissioning is an important element and must be performed to ensure quality), but built in. Quality should never be a nebulous unmeasurable emotion – it can be quantified. When it is lacking, in a real sense or imagined, conflict will result.

3. Robustness. Often confused with a person's concept of quality, robustness is much deeper. Robustness speaks to *reliability of the design through the lifecycle of the project and indeed the installation*. Robustness is expected in the scope and design, documentation, installations, and maintainability.
  - a. Design/Scope. The design must be capable of meeting the scope – this is Quality. The design must also be accurate and implementable at the lowest cost – together with quality, this is robustness.
  - b. Documentation. Documentation must be thorough, accurate, intelligible, and constructible.
  - c. Installations. An implemented design must work, and remain reliable over its life expectancy.
  - d. Maintainability. Designs can be easily (or reasonably) installed and properly function, but are not robust if maintenance is not considered. Items must be accessible and maintainable.
4. Staffing. One of the greatest challenges of a manager is the human resource element. Especially for the Consultant, people are its primary resource. Therefore, it is essential to have the proper staff, as well as retain and develop good staff.
  - a. Solicit staffing who have worked for the other. One source of conflict is misunderstanding the other entity. It is helpful for Owners to have staff that have worked in a consultant's office, and vice versa. This brings a unique perspective that not only enables understanding, but can prevent one entity from taking advantage of the other.
  - b. Retain staff. For staff that have shown technical proficiency as well as an ability to work well with the other entity, it is to the advantage of both the Owner and Consultant to retain the staff member. There is value in a long-term relationship and eliminating the "learning curve" that often causes conflict. This could require incentives to retain key staff, supported by both entities.
  - c. Develop staff. Owners often implement continuous improvement approaches in their core business. So should staff be developed in their areas needing improvement. No one has attained, as it were, to a state of perfection where we can no longer grow.
5. Training. An attitude of continuously learning is another foundation of good relations and a tonic for reducing conflict. There are many recourses and avenues available to improve in this area. Unfortunately, some view training as an end-all, which it isn't. Yet, it is an important tool.
  - a. Consultants: Acquire business acumen. It is easy for a Consultant to have "tunnel vision" and focus alone on the success of the specific project. While important, the core business of the Owner is the issue – understanding it will be reflected in designs and appreciated.



- b. Owner: Acquire technical/process acumen and understanding of Consultant's business. An Owner can forget that the consultant earns its income from fee. Understanding mark-up and other overhead/profit needs can minimize arguments/discussions over fee. Further, it may be necessary for the Owner's staff to acquire more technical knowledge in order to effectively and intelligently interact with the Consultant.
  - c. Interpersonal/cultural. Many companies are performing sensitivity training, with mixed results. Often, such training has a social agenda behind it. But each entity should recognize there are social and cultural issues that can create conflict. This is especially true when interacting between countries, where a common practice in one country can be taken as an insult in another. For example, the "ok" sign with the hand in the United States is an obscene gesture in Brazil.
  - d. Learn systems of the other. Conflict often occurs when one entity doesn't understand the limitations of systems within the other. Owners usually have stringent budgeting, funding, and reporting structures, as well as standards and details. Consultants may have differing structures and systems in place, when if altered, could create difficulty delivering the design. Each should be cognizant of the other.
  - e. Industry standards. Consultants and the Owner should be aware of industry standards and guidelines. Amazingly, many engineers are involved in no outside trade organizations (especially on the Owner's side), and find themselves behind the times.
  - f. Technical. It is a given that assigned staff must have the proper training. But if not, encourage staff to pursue evening classes, self-study, or seminars. Courses such as are found on this website are inexpensive ways to refresh or support weak technical areas.
6. Selection process. Owners should only use qualified consultants for the given scope of work, and Consultants should not hesitate to politely refuse work on which they have no experience or expertise. For convenience, Owner's may give projects to a Consultant who may be qualified in one area but not the project at hand. Conversely, Consultants may accept or pursue work for fear they will not get repeat work or during "hungry" periods. Conflict is common when the expertise doesn't exist in a particular area. See case study.
7. Other. The above are by no means exhaustive. There are other strategies/tools to foster good perceptions. The following are a few more examples.
- a. Forge long-term relationships. When possible, forge relationships that learn from previous projects. Over time, positive interpersonal relationships can foster trust and benefit both organizations.
  - b. Focused marketing/prequalifying. Consultants should only pursue projects on which they are qualified. Owners should only solicit proposals from Consultants they believe are qualified. For some projects, a prequalification/survey step is helpful.
  - c. Continuous improvement. Always learn. Never let pride get in the way of admitting (if only to ourselves) we could have done it better. Having a "lessons learned" session at the end of a project is helpful.


- d. Follow-thru. After projects are completed, it is often “on to the next one” for the Owner’s staff and the Consultant. But how has the engineered solution performed over time? Is it robust? Is it maintainable? Without follow-up, mistakes will continue to be repeated.

Having established a strategy and some practical approaches to minimizing conflict, it is time to reap the benefits from a good perception. But first, we need to understand how to apply the toolkit.

### Applying the Toolkit

In the previous section, we reviewed tools to minimize conflict. These tools have specific application to sources of conflict discussed in an earlier section. As shown above, tools are useful to mitigate a variety of conflict sources. For tools that have a strong influence, a “+” is indicated, and a “-“ is indicated for weaker influence. “N/A” in a box indicates the tool likely has little if any influence. The following are general thoughts on the tools and their effectiveness.

1. Project Management: Effective project management contains checks and balances, as well as common practices, to detect early the beginning of all the conflict elements. There can never be a substitute for effective PM.
2. Staffing: At the heart of the matter, the success of any project hinges on the assigned staff. Therefore, hiring and assigning the proper staff to the project is a paramount objective.
3. Training: This tool as well can influence the sources of conflict. Although it isn’t a cure-all, it will be effective when applied properly and received with a proper attitude. The challenge as a manager is to understand areas of weakness and develop staff. However, the most difficult attitude to inculcate is integrity (actually a core character trait).
4. Selection process: This is the strongest of the top four tools. Unfortunately, proper selection requires a decision based on unknown future events. However, with experience, Owner’s can develop reliable means of selecting the proper Consultant, and Consultants can develop a sense of appropriate customers to pursue.
5. Robustness: Designing robust systems will minimize the likelihood of failed expectations (if the expectations were reasonable.) Employing systems to catch/correct lack of knowledge and experience can ensure robustness is maintained, such as double-checking via a more experienced staff person.
6. Effective Communication: Perhaps the most overstated solution is “better communication.” While it is effective for many of the conflict sources, such as differing objectives/goals, differing measures of success, unrealistic expectations, failed expectations, and to some degree interpersonal/cultural, it is not a cure-all tonic. Yet, without effective communication there will be conflict.

 <b>Tools</b>	<b>The Source of the Conflict</b>								
	Differing objectives or goals	Different measures of success	Lack of knowledge	Lack of expertise	Unrealistic Expectations	Interpersonal/Cultural	Integrity	Lack of proper communication	Failed Expectations
<i>Effective Communication</i>	+	+	N/A	N/A	+	-	N/A	+	+
<i>Effective Project Management</i>	+	+	-	-	+	-	-	+	+
<i>Robustness</i>	N/A	N/A	+	+	N/A	N/A	N/A	N/A	+
<i>Staffing</i>	-	-	+	+	-	+	+	-	-
<i>Training</i>	-	-	+	+	-	-	-	+	-
<i>Selection process</i>	+	+	+	+	+	+	+	+	+

### Recovering from Conflict and a Poor Perception

Poor perceptions do occur and sometimes result in broken relationships. Usually, this is more of an issue to the Consultant who finds itself negotiating in a position of weakness to fall back into an Owner's graces. The following are some strategies to recover.

1. Apply the tool kit. As with engineering, the first step in solving a problem is to understand it. Once we understand the source of a conflict, we can apply the above toolkit. This approach enables a focus on the proper solution to a problem. Too often a response to a poor perception is inappropriate in that it uses a tool that will not fix the problem in the future. For example, one might promise to communicate better

#### **Recovering from a Poor Perception**

- ✓ Apply the tool kit
- ✓ Take responsibility
- ✓ Effective negotiations
- ✓ Respect chain-of-command
- ✓ Follow through
- ✓ Humility, honesty
- ✓ Patience
- ✓ Move on

- when the underlying cause of the conflict is integrity – the problem will not be resolved this way, and the Owner will intuitively know this.
2. Take Responsibility. Few things are more effective in mending a relationship than saying, “I was wrong.” Obviously, when the situation that precipitated the problem was malicious, apologies aren’t often enough. Being argumentative with the other usually doesn’t work, but effective negotiation might.
  3. Effective negotiations. Often, disputes (especially financial) are attempted to be resolved by agreeing to “split it 50-50.” This is an ineffective solution, and negotiations should be based on facts and itemized costing. For example, rather than going to the Owner with a request to pay \$10k because of overages, go to the owner with a list of individual impacts, itemized, that sum to the amount reasonably due. The Owner’s rep cannot usually deal with generalities. And, next time, the Consultant should let the Owner know before it performs the work that additional cost will be required. From the Owner’s interest, it must hold the Consultant accountable to its original scope.
  4. Respect chain-of-command. Often, Consultants will “go over the head” of the Owner’s representative. While this might be effective in winning a battle, a long-term relationship is not likely. Occasionally, a carefully pursued appeal can be effective, but never maliciously ignore and step over the individual with whom the rift was formed – the first step should be to a attempt to “work it out” with the point of contact.
  5. Follow-through. Update the other on steps that were taken to mitigate the problems that occurred. Share successes. Update on new staffing that are hired and have the potential of improving the relationship in the future. Keep the Owner updated as to similar projects and successes with other clients.
  6. Humility. While this is a personal virtue, it can be applied to the relationship as well. Remain honest – don’t try to argue out of a situation when you were wrong. Special humility may be required if the relationship is to be salvaged. For example, the Owner may only be willing to offer a small project and bypass you on the more lucrative ones for a while. Take it. As in interpersonal relationships, we often must patiently prove to the other we are sincere, and the methods we have employed are effective.
  7. Be patient. Some things take time, including improving relationships. The other side needs to grow and gain experience. Staffing change, and environments improve. If the relationship is broken, you may try again after time has healed old wounds, or new representatives are in place. Someone once said that it is easier to gain a new friend than an old one. The same is true in business. A competitor may come in with promises, but it will take time to see if they can deliver as well.
  8. Move on. Business continues, and life goes on. Whether the relationship can be mended should not be a final determiner of success. Pursue other clients, if need be. Learn from mistakes made, and consider it an investment in future success. Let us be realistic – some relationships cannot be mended, at least with the same players involved, and it requires wisdom to understand when this is the case. Others don’t always have the best intentions, and have internal motivations quite out of our control. Don’t take it personally. Perhaps the Consultant was not at fault, and despite attempting to educate the Owner, the perception persisted – we

must continue to follow good engineering practices and the law even when it results in losing business. This is integrity; this is professionalism.

### Reaping the benefits of a good Perception

Someone once said that if you always do something a certain way and get the same results, you can't expect to get different results if you do it the same way again. If you have bad perceptions from your Consultant or Owner, you must do things differently. Mutually applying the concepts in this course can result in positive benefits. A few examples are as follows:

1. Profitability. A sustained long-term and mutually fair relationship builds stability, and with stability comes sustained profitability. Good projects have good results. Well-executed projects are also cost effective projects. Cost efficiency is a crucial ingredient in profitability.
2. Personal enjoyment. It is simply more fun to work in a cordial environment, where trust prevails with mutual respect. Few environments are more difficult in which to work than one with oppressive poor perceptions, especially when the perceptions are not based on reality.
3. History/experience. Companies, along with their employees, can grow and mature together, resulting in enrichment for the staff and success of its business. With history comes a strong resume – a record of being able to sustain a relationship and a well-rounded experience.
4. The end users – the *real* winners. The customers of the Owner are the real winners when we have effective relationships between Owners and Consultants. The end products or services are safer and more cost effective. And while the end customers are quite unaware of the effort behind the scenes, we live with the satisfaction of a job well done.

So far, we have looked at the theory of conflict and its resulting perceptions, and measures to mitigate. What about the real world? The following are some case studies based on real events (slightly altered to prevent identification) that we can review to apply what we have learned.

### Case Study #1: Roof steel design

Case Study: The Consultant acquired a project from a new client. The Consultant had been pursuing the client for many years, and was excited to have the first project. Unfortunately, conflict and a poor perception was about to follow. The project was to install ventilation equipment on the roof, and the Consultant was only responsible for designing the rooftop support steel. The Owner had already chosen the stacks and fans, and gave the cut sheets to the engineer when he visited the site. The Owner's structural engineer visited the roof with the Owner rep, and discussed the desired location of the stacks. Being a small project, the engineer acquired the drawings while at the Owner's site, and returned to the office and completed the design. The Consultant forwarded the drawings to the Owner for implementation, who after bidding the work discovered that the stack was in the wrong place to accommodate the space below. The Owner's rep contacted the engineer to move the stack. But to do so would have required a complete

redesign, and no fee was available. The Owner would not agree to add fee to cover the redesign. Neither party budged. The Owner reluctantly accepted, and “made do.” Unfortunately, the relationship was somewhat soured between the staff members, and the amount of work between the Owner and Consultant was not what had been hoped for. What went wrong? Take a few minutes and consider the following questions, writing the answers on a separate piece of paper before reviewing the answers.

- a. What perceptions likely resulted from this event in both entities?
- b. What was the cause of the conflict?
- c. Where would this case study fall on the Continuum?
- d. What strategy/tool could have been employed to prevent the conflict?
- e. What benefits could have been reaped if the conflict had been better resolved?

#### Answers/Discussion to Case Study 1

- a. What perceptions likely resulted from this event in both entities?

The Consultant had the perception that the Owner did not know its scope, and felt he had adequately discussed and agreed to the location before leaving the site. The Customer had the perception that the Consultant should have figured out the correct location, and believed he had relayed such.

- b. What was the cause of the conflict?

The cause of the conflict was poor communication. Both representatives were qualified in their job technically, but did not communicate effectively.

- c. Where would this case study fall on the Continuum?

This event resulted in a personal nuisance. Fortunately, it did not completely end the relationship, but added a bit of poison.

- d. What strategy could have been employed to prevent the conflict?

Better communication. Simply sending a preliminary sketch of the roof equipment support steel general arrangement to the Owner before proceeding could have enabled the problem to be caught before the proposed man-hours were exhausted. Effective Project Management would have helped by confirming the scope.

- e. What benefits could have been reaped if the conflict had been better resolved?

More repeat work. The Owner’s rep never called the Consultant’s rep for repeat work, although the companies did work together on future projects. The Owner should have taken some responsibility for communication as well, and have asked for a preliminary sketch if the stack location was that uncertain. On the other hand, the engineer should have taken some responsibility as well. If both had followed good business practices,

they could have come to a mutually agreeable agreement, perhaps to share in the fee. This is an example of a “gray” area that requires mutual integrity to properly resolve.

### Case Study #2: The Equipment Room Ventilation Problem

One summer, maintenance noticed a problem in the equipment room, and office staff noticed a problem in an adjacent hall. The doors were pulling shut in one direction, and in another wouldn't stay closed. The cause became quickly apparent. A recent construction project had permanently blocked the outside air intakes. When the thermostats called for the exhaust fans to come on in the equipment room, the suction was more than the remaining free air makeup space would permit. The Owner's staff engineer called in a local mechanical/electrical contractor who purported to have design capabilities. The design engineer from the contractor proposed draft intakes (without a make-up air fan). She assured the Owner it would be sufficient to adequately reduce the negative pressure. The Contractor completed the work in the winter. The next summer, when the fans came on, it was apparent the problem had not been resolved. To make matters more serious, maintenance discovered that the negative pressure was causing reverse flow in the combustion exhausts from the boilers – a potentially serious situation indeed. Irate, the Owner contacted the Contractor, who informed the Owner the staff engineer was no longer employed. The Owner acquired the services of another A/E consultant, who confirmed the problem and proposed significant changes, including adding a forced-air makeup. The Contractor accepted their responsibility, and offered to perform the additional work at a reduced cost. Take a few minutes and consider the following questions, writing the answers on a separate piece of paper before reviewing the answers.

- a. What perceptions likely resulted from this event in both entities?
- b. What was the cause of the conflict?
- c. Where would this case study fall on the Continuum?
- d. What strategy/tool could have been employed to prevent the conflict?
- e. What was the likely impact to the relationship?

### Answers/Discussion to Case Study 1

- a. What perceptions likely resulted from this event in both entities?

The Owner perceived that the design engineer was technically deficient, and the Contractor was not a good source of design engineering (although they remained an acceptable installation contractor.) The Owner perceived the Contractor doing less than expected to check (commission) its work.

- b. What was the cause of the conflict?

The cause of the conflict was technical ability (lack of knowledge and expertise) – the design engineer simply did not understand designing exhaust for equipment/boiler rooms.



Also, there was a quality problem – no one bothered to check to see if the installation worked. It would have been a simple matter to override the thermostats and observe the continued pressure with the fans on. Legitimately so, there were failed expectations.

c. Where would this case study fall on the Continuum?

This event affected the profits of the Contractor, but could have resulted in a much more serious situation if the reverse flow had caused an explosion.

d. What strategy/tool could have been employed to prevent the conflict?

Ensuring qualified and experience staff had performed the design. Both the Owner and the Contractor hold some of the blame for not checking after the work was installed. Nearly all the tools would have been required for the contractor to succeed (except communication, interestingly.)

e. What perceptions likely resulted from this event in both entities?

Although the contractor continued to perform projects, the Owner perceived the contractor as not being appropriate to do design work, and there was a slip in the trust factor – future work resulted in more back checking.

### **Course Summary**

In this course, we reviewed negative perceptions that often occur, both from the perspective of the Owner and of the Consultant. Poor perceptions result in broken or unpleasant working relationships. Specifically, we reviewed the following:

1. Common poor perceptions of one towards the other and the consequences
2. Underlying conflict that often results in poor perceptions
3. Tools that can avoid conflict
4. A strategy for minimizing conflict to strengthen Owner/Consultant relationships – applying the toolkit
5. A strategy for recovering from conflict or a poor perception

It is possible to foster long-term, mutually beneficial relationships between Owners and Consultants. Once we master the concepts taught in this course, then we may reap the benefits