

CHAPTER 6 – CONSULTING FIRMS

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Introduction

Consultant firms are private businesses that contract with the Florida Department of Transportation (FDOT) to perform desired services. Consultant firms are utilized by the Department to accomplish the majority of the projects in the FDOT work program. Consultants perform planning and Project Development and Environment (PD&E) studies, roadway and bridge design, traffic engineering studies and design, materials testing and inspection, surveying and mapping, right of way services, construction engineering inspection services, and asset management services (maintenance contracts). Consultants are also used by the FDOT in general consultant roles to help manage programs, provide technical direction and review the work of other consultants.

The purpose of this chapter is to give a FDOT Project Manager (PM) a basic understanding of how consultant firms operate. Because most of the consultants doing business with the FDOT are engineering firms, much of the discussion in this chapter will focus on them. However, this discussion applies as well to the many consultant firms that offer other services used by the FDOT such as planning, surveying and mapping, geotechnical, materials testing, archeological, landscape architecture, and right of way services.

The Business of Consulting

Consultant firms doing business with FDOT vary in size, services offered, locations, management, organization and corporate cultures vary. However, there are also similarities. As businesses, all have profit as an objective. To do business with FDOT, all must conform to basic accounting procedures. All must practice in accordance with Florida laws and rules relating to the practice of professional engineering or other regulated professions.

Consultant Firm Characteristics

Each consulting firm is unique, but there are some common characteristics among many firms in terms of organization, staffing and financial operations.

Organization: Organization of consultant firms is generalized by size. The American Council of Engineering Companies defines firm size by number of employees: small firms, 1- 30 employees; medium firms, 31-150; and large firms, 151 or more employees. The actual number of employees used to categorize a firm is not important, but firm size does account for some organizational differences.

- **Small firms:** Most small firms practicing in Florida are Florida based and have only one or very few offices. Small firms usually specialize in one or a few technical services. Small firms must have very flexible organizations. Personnel are assigned to projects as needs arise. Individuals may be expected to perform a large number of tasks. It is

common for managers and engineers to perform necessary administrative tasks in addition to their technical work.

- **Medium firms:** These firms usually have several offices and groups of technical specialists. Specialized subgroups are likely to exist, such as roadway design, stormwater design, bridge design and traffic engineering. Medium firms are likely to have an accounting group, human resources and other administrative staff.
- **Large firms:** Most large firms operate in several states and have multiple offices. Many have an international practice. Large firms are usually organized either geographically or functionally, and sometimes they are a hybrid of both. Offices are usually grouped into regions. Large firms frequently have very specialized technical groups that provide services throughout the firm and well-defined administrative procedures.

Although medium and large firms have more resources, local offices may be very small and, in fact, may operate in a fashion similar to small firms.

Firms can be sole proprietorships, partnerships or corporations. While some of the larger firms are corporations whose stock is publicly held and traded, in most incorporated firms stock is privately held, commonly by the senior employees of the firm. Employee-owned firms, known as Employee Stock Ownership Plans (ESOPs), are becoming more common. An ESOP has broad employee ownership of company stock.

Consultant firm management is closely related to the ownership and size of the firm. Senior management of sole proprietorships and partnerships usually rests with the owners themselves. Stockholders, as represented by a board of directors, ultimately control corporations. A board of directors elects senior corporate officers, which may include positions such as president, chief executive officer, chief operating officer and vice presidents. There may be a number of vice presidents in a firm, each with a specific area of responsibility. A vice president is considered an officer of the firm with the power to make contractual commitments. Consultant firm organizations seldom have fixed positions with clearly defined position descriptions. More common is the tailoring of an organization to fit the skills and abilities of key employees.

Staffing Issues: Skills and abilities of employees determine the success of a consultant firm. Hiring and keeping highly qualified people are always important objectives. Project Managers are critical to the success of a consultant firm. Minimum qualifications of a consultant PM usually include professional registration, technical expertise and experience, project management skills, qualifications that will “sell” to clients, and the ability to market and win projects. The qualified consultant PM must be able to build professional relationships, write letters of interest and proposals, and make good presentations.

Financial Operations: Key to understanding consultant firm financing is being aware that every cent spent must be accounted for. Labor is by far the largest single expenditure of firms. Labor costs are accounted for by tracking hours charged to either projects or overhead accounts. Direct expenses must also be accounted for in the same way. All charges are either project chargeable or overhead.

Overhead costs can usually be subdivided into three groups, roughly equivalent in size:

1. **Employee benefits:** This group includes pay for vacation, holiday and sick time; firm contributions to retirement plans and social security; insurance costs and all other employee benefits. Since these are usually established by policy, management has very little control that over their costs.
2. **Direct expenses:** Direct overhead costs include office rent, computer hardware and software, office supplies, equipment, training and all other direct costs that are not chargeable to projects. Although some control of these costs is possible, the larger direct expenses are usually rent and computer systems. These are major, long-term commitments.
3. **Labor costs:** This group includes all non-project chargeable labor costs, including firm management, administrative staff, accounting, time for training and marketing. Marketing is usually a large cost. It includes the time required to present the firm to potential clients in the most positive light, to track potential projects, to prepare letters of interest and proposals, and to make presentations. Chargeable time is the overhead component that managers have most control over.

Overhead is calculated by adding all overhead direct expenses and labor costs associated with each of these three groups and dividing by the total project chargeable labor cost. Because project-chargeable costs are the base, the overhead rate is very sensitive to project chargeability of labor. A relatively small increase in non-chargeable time can create a large increase in the overhead rate which, in turn, will have a negative impact on profitability. For this reason, consultants must always be concerned about time chargeability.

FDOT contracts are based on the audited overhead rate, which is a firm's final overhead rate for the past fiscal year. An independent auditor must be used to arrive at the audited overhead rate. FDOT has very strict guidelines on the acceptability of overhead charges that can be included in an audited overhead rate.

To make a reasonable profit, it is necessary to balance overhead costs and volume of work. These two factors are interrelated and sometimes competing. A sufficient backlog of work ensures the resources to maintain adequate staffing. Overhead funds must be expended for marketing to obtain a steady flow of new

work. The key to profitability for a consultant firm is to strike a balance between the two.

Qualifications to Perform Work for FDOT

[Rule Chapter 14-75, Florida Administrative Code](#), describes the qualification process for consultants, work categories that the FDOT uses for professional consultants and the minimum qualifications required for each. Considerations used in the qualification process are:

1. Professional license or registration.
2. Personnel with appropriate experience and training.
3. Business registration with the Department of State.
4. History of failure to maintain satisfactory work performance evaluations with the FDOT.
5. Integrity and responsibility.
6. History of conviction of contract crime.
7. Employment of or providing compensation to any employee or officer of the Department.
8. Attempts to influence the actions or judgment of Department employees.
9. Acceptability of supporting overhead, accounting system and insurance information.

[FDOT Prequalified Consultants](#) provides a list of all prequalified consultants by work category.

A list of Certified Disadvantaged Business Enterprises (DBE), including consultants may be found under DBE on the [Equal Opportunity Office \(EOO\)](#) website. The site also contains the forms and application procedures for firms seeking DBE certification. FDOT always gives consideration in the selection of professional consultants to DBE consultants and to consultants who propose to use DBE subconsultants when other factors are equal.

Sources of Information

When selecting a consultant or beginning a project with a consultant, a FDOT PM should learn as much as possible about the firm. With just a little work, a PM can find valuable information about a firm's size, services, headquarters and office locations, principals, organization and corporate culture. A good place to start is the FDOT qualification information discussed above. Another good source is the [Florida Institute of Consulting Engineers \(FICE\)](#) Annual Directory & Guide, which includes a description of services offered by member firms and their office locations, principals and the number of Florida-based

employees. Copies of the directory can be obtained directly from their website. Most consultant firms maintain their own websites. Finally, many firms produce excellent company brochures and newsletters.