INSURANCE REQUIREMENTS AND COSTS

IN THE CONSTRUCTION INDUSTRY

by

J. Kyle Hansen

A research report submitted in partial fulfillment of the

requirements for the degree of

Master of Science in Civil Engineering

Department of Civil Engineering

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Abstract

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J. Kyle Hansen

Dr. Jimmie Hinze
Chairperson, Supervisory Committee

A research study was conducted to determine the insurance requirements of selected public agencies, and to examine factors that insurance companies consider when determining premium rates. The public agencies investigated were State Highway Departments and Municipal Public Works Departments. The information for the insurance requirements was obtained by a specification review, and for factors affecting premium rates, by personal interview of insurance underwriters. The information was analyzed to identify consistencies and differences between agency requirements and between insurance companies. The results can be used by construction contractors to better understand which factors affect their insurance premiums, and to realize that there are significant differences between state insurance requirements.

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CHAPTER ONE

INTRODUCTION

For a variety of reasons, construction contractors face many uncertainties as they start projects. Construction operations do not always take place according to plans--mistakes occur, workers suffer injuries, property is damaged, and acts of God or other mishaps can impede or halt progress on a construction project. Most of these incidents require money to rectify. The prudent contractor realizes the importance of having adequate insurance and will purchase the types that will offer the best protective coverage for each project undertaken. Since contractors may be potentially at risk for multimillion dollar liability suits and since they are responsible for millions of dollars worth of materials and work-in-place, they must consider the purchase of adequate insurance as one of their most important administrative functions.

Public agencies recognize the fact that mishaps occur, and that liability suits can be brought against them, as owners, even though the prime contractor or subcontractor is at fault. To minimize the risk of financial loss during construction of the project, agencies may include provisions in their specifications that require contractors to maintain certain types and levels of insurance. In addition to contractually required insurance, there are many other types of insurance available to construction contractors to offset almost any loss.

This paper will examine the types of insurance required by various state and local agencies. It will also explore some pertinent factors, from the underwriters position, that are related to purchasing insurance and that affect the cost of insurance.

CHAPTER TWO

TYPES OF INSURANCE IN THE CONSTRUCTION INDUSTRY

Purchasing the proper insurance with adequate limits can be one of the most important administrative decisions a contractor will make. Before discussing public agency requirements for insurance and factors affecting insurance costs, it is necessary to first identify and describe the types of insurance that are purchased in the construction marketplace, and to briefly describe what each type will generally cover. Other important terms that are used by the insurance industry will also be described.

A. LIABILITY INSURANCE

Liability, as defined by Black's law dictionary, is "a condition of being responsible for a possible or actual loss, penalty, evil, expense, or burden" (Black, 1979). In the construction industry, some situations in which the contractor may be held liable for an accident or mishap are described as follows (Clough, 1981):

a) acts of commission or omission by the contractor may result in individual(s), not employed by the contractor, suffering injury or death, or property owned by third parties may be damaged or destroyed.

b) indirect liability may be brought about by the acts of parties for which the general contractor is responsible, such as subcontractors.

c) liability of others, such as the owner, may be contractually assumed.

d) after work on the project has been completed, injury to third parties or damage to the property of third parties may be attributed to the contractor.

e) an accident may occur involving the use of the contractor's motor vehicles, or the use of personal motor vehicles in the course of conducting business for the contractor.

These are the primary means by which a contractor can be held liable. Liability insurance serves the purpose of protecting the contractor against third-party suits arising from such mishaps. There are many forms of liability insurance available today to protect against the various risks mentioned above. General liability policies will cover property damage and bodily injury, but they exclude certain mishaps. If the basic policy excludes a type of liability coverage desired by a contractor, the coverage can be purchased separately, and it is then called extended coverage to the basic policy. Common exclusions in the general liability policy include the following (Clough, 1981):

a) any liability the contractor assumes by contract.

b) property damage caused by explosions or blasting.

c) collapse or structural damage of the building.

d) damage to underground utilities.

e) damage to property under the care, custody, and control of the contractor.

f) personal injury to the contractor, owner, or third parties.

g) bodily injury to the contractor's own employees

h) motor vehicle liability.

Two types of general liability insurance that combine various coverages in a single package are COMPREHENSIVE GENERAL LIABILITY (CGL) INSURANCE and the newer COMMERCIAL GENERAL LIABILITY (CmGL) INSURANCE. CGL was endorsed by all states prior to 1985. In that year, however, the Insurance Service Office (ISO) introduced CmGL as a replacement coverage to CGL (Lyneis, 1987). The main reason for the advent of CmGL was to include, as part of the general package, certain coverages that were available only as extended coverages to the CGL. Another reason was that the name, "comprehensive general liability", indicates that all coverages are included, and it might be interpreted in court that there should not be any exclusions. As of this writing all 50 states have approved the use of Commercial General Liability insurance (Salvato, 1990).

Contractors usually purchase general liability insurance on an annual blanket basis with individual job coverage and specific requirements brought under it by endorsement through extended coverages. Insurance companies write the policy with stated upper limits of monetary coverage. The limits can be stated in different ways. The usual breakdown is to separate claims by bodily injury and property damage. The bodily injury portion will state limits for (1) each person, (2) each accident, and (3) aggregate. The "each person" limit is the maximum amount the insurance company will pay to each third-party individual that is injured. The "each accident" limit is the maximum amount the insurance company will pay for all third-party injuries in one accident. The aggregate limit is the most the insurance company will pay for third-party injuries during the policy period (usually one year). Similarly, the property damage portion states limits for each accident and the aggregate. Once a contractor purchases insurance, the insurer provides a certificate as proof of this purchase. The certificate will have all pertinent information on it, such as coverages, policy limits, and the policy period.

The general liability policies come in two basic forms: occurrence and claims-made. The occurrence form provides coverage for insurable events that occur during the policy period, regardless of when a claim is made, even if the claim is made years after the policy has been dropped by the insured. Because insurance companies were defending claims that were made years after the occurrence of an accident, they developed an alternative type of coverage called "claims-made". This policy only provides coverage for accidents that are claimed during the policy period. Coverage gaps can arise with claims-made insurance when a policy is cancelled or not renewed by either the insured or the insurance company, or when an exclusion of specific accidents or type of work is attached to a renewed policy (Stokes, 1990). A feature used by contractors to close these holes in the coverage is called the "extended reporting period" (ERP), also known as "tail coverage". The standard claims-made CmGL policy includes two types of ERP: the basic ERP and the supplemental ERP.

The basic ERP takes effect automatically when the policy is cancelled or not renewed. It covers any claims made against the insured contractor within five years if the claims arise from occurrences that the contractor knew about and reported to the insurer before or within sixty days after the policy is cancelled or not renewed. This does not cover claims made against the contractor that arise from occurrences that the contractor did not know about and did not report to the insurance company before or within 60 days after the policy termination date. The supplemental ERP is available for this contingency.

The supplemental ERP eliminates the five year limitation of the basic ERP and causes that particular tail coverage to be of unlimited duration. It also provides coverage for claims made at any time in the future that arise from occurrences that the insured did not know about and report to the insurer before or within sixty days after the policy termination date. A new set of aggregate limits also applies to claims covered by the supplemental ERP. Whereas the basic ERP usually comes with no additional premium charge, the supplemental ERP must be requested and a premium is charged for this tail coverage (McIntyre, 1986).

B. SPECIFIC LIABILITY COVERAGES

The general liability policy is made up of several specific liability coverages. Following are descriptions of the coverages usually included in the general policy, as well as those coverages that contractors must purchase as extended coverages.

1. OPERATIONS-PREMISES LIABILITY INSURANCE

Operations-premises liability insurance is purchased most frequently of all the liability coverages (Hinze, 1990). Under this type of insurance, the contractor is protected for liability arising out of bodily injury and property damage caused by an incident on premises owned or occupied by the insured contractor anywhere in the United States or Canada (Stokes, 1990). This will only cover injuries caused to third parties and damage to property owned by third parties.

2. ELEVATOR LIABILITY INSURANCE

Contractors can be held liable for bodily injury or property damage to third parties caused by the operation, ownership, and maintenance of elevators (or hoists) (Clough, 1981). The contractor is protected against these types of claims by elevator liability insurance. Elevator liability can be part of the operations-premises coverage.

3. COMPLETED OPERATIONS AND PRODUCTS LIABILITY INSURANCE

Although Completed Operations and Products liability insurance is written as a single coverage, on construction projects only the completed operations portion is generally applicable. This insurance is intended to provide protection against claims for bodily injury or property damage that may occur after the contractor has completed the project (Rothschild, 1973). It covers damage to property other than the cost of replacing the contractor's own work. It should also cover the cost of the contractor's legal defense. A typical exclusion is liability incurred because of a design error if the contractor also designed the work (Stokes, 1990).

4. CONTRACTOR'S/OWNER'S PROTECTIVE LIABILITY INSURANCE

Contractor's protective liability insurance protects a contractor from claims arising from damage or injuries to third parties caused by a subcontractor working on the jobsite. A third party harmed by the actions of a subcontractor can sue the prime contractor because the prime exercises general supervision over the work and is responsible for the conduct of construction operations (Clough, 1981). Similarly, owner's protective liability insurance provides the owner protection for damage or injury claims caused by the general contractor or any subcontractors. Owners can be sued for a contractor's negligence because the owner has a responsibility to inspect the work, employ competent contractors, and ensure that work is undertaken in a safe manner (Lyneis, 1987).

5. CONTRACTUAL LIABILITY INSURANCE

Contractors may assume the legal liability of another party in a construction contract. These "Hold-Harmless" agreements are used in many construction contracts as well as in equipment rental agreements. The other party can be the engineer, the owner, the architect, or a material supplier. This type of liability can be an exclusion in general liability policies, so the contractor must procure contractual liability as an extended coverage. Contractual liability insurance is designed to protect the contractor from claims made due to the assumption of liability in the contract (Clough, 1981).

There are three main forms of hold-harmless, or indemnification, clauses that shift the burden of responsibility from the owner to the contractor or from the contractor to the subcontractor. These categories are limited, intermediate, and broad form agreements. The limited agreement states that contractors will be liable for their own negligent acts during the performance of work under the construction contract. Further, the contractor will protect the owner from claims made against the owner because of negligent acts of the contractor.

The intermediate agreement states that when the contractor and the owner share negligence and are legally liable for a loss, the contractor will provide defense for both the owner and contractor. This shifts more responsibility onto the contractor.

The broad form agreement requires the contractor to accept the entire responsibility to protect the owner, architect, engineer, their agents, and employees from all claims arising out of occurrences in connection with contractor operations, without regard to negligence. This is, of course, the harshest indemnification language from the contractor's viewpoint (Nelson, 1969; McDonald, 1973).

6. EXPLOSION, COLLAPSE, OR UNDERGROUND LIABILITY INSURANCE

A common exclusion to the general liability policy is damages caused by explosion, collapse, and underground operations. Commonly known in the industry as the X-C-U exclusions, these hazards are part of a large portion of contracting. The exclusions do not delete liability for bodily injury, only for property damage. If contractors want the X-C-U coverage, they must purchase it as an extended coverage. The explosion portion covers property damage arising out of blasting or explosion including explosion of equipment such as pressure vessels. The collapse portion covers property damage arising out of the collapse or structural injury to an adjacent building resulting from work operations. The underground portion covers property damage to buried conduit, pipe mains, sewers, telephone wires, tanks, tunnels, and any other items resulting from excavating or grading operations (Clough, 1981; Stokes, 1990).

7. BROAD-FORM PROPERTY DAMAGE LIABILITY INSURANCE

A normal exclusion to general liability policies is damage to property in the care, custody, and control of the contractor. Because the entire project is usually considered to be in the care, custody, and control of the contractor, it is excluded from property damage coverage. Thus, if a piece of equipment belonging to a third party is in the care, custody, or control of the contractor and is damaged, the general liability policy will not cover the loss. The broad-form property damage coverage will define specific instances of care, custody, or control that are excluded, thus including everything else. This insurance is designed to answer the question of how much of the property being worked on is subject to the care, custody, and control exclusion. The contractor can close any resulting gaps in coverage by purchasing other types of insurance such as builders risk, and equipment and installation floaters (Clough, 1981; Stokes, 1990).

8. PERSONAL INJURY LIABILITY INSURANCE

Personal injury, as opposed to bodily injury, is not physical impairment, but is defined as intangible harm (Clough, 1981). Instances where personal injury may be claimed are: false arrest; malicious prosecution; libel, slander, and defamation of character; wrongful eviction; invasion of privacy; and wrongful entry. Personal injury insurance protects the contractor from claims brought on for any of these reasons. The personal injury endorsement normally excludes coverage of the contractor's own employees, so if the contractor desires this coverage, the endorsement must waive this exclusion (Rothschild, 1973).

9. UMBRELLA EXCESS LIABILITY INSURANCE

Umbrella Excess liability insurance extends the limits of liability insurance beyond the maximum coverage of the general policy (Hinze, 1990; Rothschild, 1973). The main purpose of this insurance is to cover the contractor for judgements greater than that provided by the basic liability policy. The umbrella policy is only invoked in cases where the contractor is held liable for damages greater than what is provided by the primary policy. The limit on the primary policy is therefore the deductible on the umbrella coverage. Usually the umbrella policy covers the same hazards as the primary policy. However, an advantage is that it can be written to cover losses that may not have been on the basic policy. These coverages would take effect after a specified deductible limit is exceeded (Clough, 1981; Rothschild, 1973).

C. BUILDER'S RISK INSURANCE

Builder's Risk insurance is a form of property insurance that protects the building or project against physical loss or damage from external causes during construction. The protection provided depends upon the terms of the written policy, but usually includes materials and supplies to be used on the project. These items are insured while held in temporary storage before delivery, during transit to the jobsite, and after delivery while awaiting installation (Clough, 1981). The hazards covered by this insurance vary. The policy may protect against loss due to fire (this is the primary purpose of this insurance), vandalism and miscellaneous mischief, lightning, wind, smoke, explosion, and other types of physical damage. Some common exclusions stated within the policy are damage due to freezing, explosion of steam boilers or pipes, glass breakage, subsidence and settling, earthquake, and floods (Stokes, 1990).

There are two major types of builder's risk insurance. The first type is called an All-Risk Builder's Risk policy. Contrary to its name, it does not cover all risks, but has specific exclusions in the policy and covers all risks not specifically excluded. The second type is called named-peril builder's risk. This type of policy will cover only those risks specifically named.

Contractors can purchase a third type of builder's risk insurance, called an installation floater, when the chances of damage due to fire are minimal. An example is utility construction involving the installation of water mains and sewer lines. The installation floater will insure against damage to the project and materials during construction. The coverage will also extend to equipment and machinery to be installed on the project, beginning with its shipment to the site and extending through the final testing phase (Hinze, 1990; Lyneis, 1987).

D. EQUIPMENT FLOATER INSURANCE

Construction equipment and machinery used on the project is subject to damage and can be protected by what is known as an equipment floater policy. This policy covers equipment that moves from job to job (the equipment "floats"). The equipment covered, often referred to as off-road vehicles, is not licensed and includes dozers, scrapers, power shovels, loaders, cranes, pumps, and pavers. The major losses that typically occur are due to theft and vandalism. No liability component is attached as the policy only covers damage to the equipment (Hinze, 1990).

E. KEY MAN INSURANCE

Key Man insurance is essentially a life insurance policy written on company principals. It will protect the company from heavy losses that may result from one or more principals (key men) of the firm dying. There may also be a clause that will provide benefits if a principal is disabled and unable to work (Hinze, 1990).

F. AUTOMOBILE INSURANCE

There are two broad categories of risk involved when a contractor operates automobiles. First, there is loss or damage to the contractor's own vehicles caused by collision, fire, theft, vandalism, or other hazards. Second, there is liability for bodily injury to third parties or damage to their property caused in some way by the operation of the contractor's licensed vehicles. Automobile liability coverage will cover any vehicle fitting into one of three categories--owned automobiles, hired or rented automobiles, and non-owned automobiles such as employees' personal automobiles used in conjunction with official business. The coverage will provide for legal defense and payment of damages resulting from damage to persons or property due to the operation of vehicles fitting into one of the categories listed above (Stokes, 1990).

G. WORKER'S COMPENSATION INSURANCE

All of the states have enacted worker's compensation laws to give statutory protection to employees injured on the job. Worker's Compensation insurance provides medical care and other benefits for the contractor's employees in the event that they are injured on the job. The principle behind worker's compensation is that on-the-job injury or death of a worker is a cost of doing business and should be borne by the industry. The fundamental objective is for injured workers to receive prompt medical attention and monetary assistance. Another principle behind worker's compensation is that of strict liability of the employer, regardless of any fault by the employee. Contributory negligence of the employee will not affect the employer's liability, except in cases where the worker was under the influence of drugs or alcohol (Clough, 1981).

The insurance is required for most employees, i.e., exemptions include domestic servants, farm labor, casual employees, independent contractors, and workers in religious or charitable organizations. Also exempted in some states are businesses that employ less than a specified number of employees (Stokes, 1990).

In six states, known as "monopolistic fund" states, the insurance fund is run by the state. The contractor is required to purchase the insurance from the state rather than from a private insurer. In all other states the insurance can be bought like any other type of insurance (Stokes, 1990).

Premiums are based primarily on three factors: the employer's safety experience on prior construction projects, the type of craft, and the geographic location. For the first factor, it is obvious that if a particular contractor has an outstanding safety record, the premiums will be lower than a contractor who has a poor safety record. An "experience modification rating" is assigned to each company that reflects the frequency of injuries and the monetary loss suffered over a three year period. This rating is a multiplier that effectively raises or lowers the premiums. The second factor is associated with the craft, as this is related generally to the degree of risk involved. For example, a roofer has a higher degree of day-to-day risk than a concrete sidewalk installer. This difference results in various premium rates based on the industry loss history for each craft in the state. For the third factor, different states have varying injury experiences across all types of crafts. This results in some states having much higher premiums than others (Hinze, 1990).

H. EMPLOYER'S LIABILITY INSURANCE

Employer's Liability insurance is written in conjunction with worker's compensation insurance and provides the contractor with broad coverage for personal injury or death of an employee. This can be utilized by the employee when the injury is not covered by the worker's compensation policy. Such instances may occur when the employer did not use proper safety equipment required by law, and the employee elects to sue for damages under common law. Another instance may be when an employee is injured in another state where the contractor does not have worker's compensation insurance in effect. An example of how this might occur could be a worker crossing a state border to pick up materials. If the worker is involved in an accident while in the other state, and the employer has no worker's compensation insurance for that state, the employer's liability insurance would cover the loss. The employee may also refuse to accept the worker's compensation benefits and elect to seek compensation through the court system (Clough, 1981).

I. WRAP-UP INSURANCE

To lower the insurance cost of a construction project, the owner may provide coverage for the owner, architect-engineer, prime contractor, and all subcontractors. This policy is referred to as wrap-up insurance. For such a project, all contractors must exclude insurance coverages from their bids and accept the coverages provided by the owner. The usual procedure is for a single insurance company to provide all coverages, including general liability, worker's compensation, and builder's risk (Clough, 1981).

CHAPTER THREE

LITERATURE REVIEW

A search of available literature resulted in finding many articles in construction-related periodicals that detailed the direction the insurance market was heading at different times during the 1980s (Dybdahl, 1987; Griffin, 1985; Krizan, 1989; McIntyre, 1986; Ostrower, 1987; Schmidt, 1989; Schoumacher, 1988; Vince, 1987). These articles were helpful in developing an understanding of the insurance issues that faced the construction industry, from the standpoint of both contractors and insurance underwriters. The search also revealed articles and studies investigating the causes of the liability crisis of the early 1980s and the resultant impacts on the construction industry (Gahin, 1988; Harrington, 1988; Heinly, 1986; Hoffmann, 1986; Kraker, 1986; Lunch, 1986; Willard, 1986).

A. FACTORS AFFECTING COST AND AVAILABILITY OF INSURANCE

While the articles were helpful in providing focus and general information, none consolidated input from insurance underwriters relating to factors that affect the cost and availability of insurance. It is felt that information on factors that underwriters consider when setting premium rates on construction insurance would be beneficial to contractors. The literature did reveal that often an adversarial stance is taken between contractors and insurance underwriters (McIntyre, 1986). This may occur because of the wildly fluctuating prices on insurance that were experienced during the 1980s and misconceptions as to what causes rates to rise and fall. By knowing what actions promote lower premium rates, contractors can take positive steps to reduce their insurance burden and improve their competitiveness.

B. INSURANCE REQUIREMENTS OF PUBLIC AGENCIES

No studies were found that examined what the requirements were for obtaining insurance before beginning work on projects for public agencies.

Most public agencies, as owners, will require contractors to purchase some minimum amount of insurance before beginning construction projects. The types of insurance required by different public agencies varies because of the differences in the class of work for which each agency is responsible. If the contract spells out exactly what insurance is required, then the only decision the contractor must make is whether to obtain higher limits than required. If insurance is not required, the contractor must weigh the potential costs of "going bare" against the cost of insurance premiums. If the decision is made to buy insurance, the contractor must choose appropriate limits that will provide adequate coverage. What consists of adequate coverage? Contractors often decide this based on how much risk the firm is capable of assuming in the event of a accident where they may be held liable.

CHAPTER FOUR

RESEARCH METHODOLOGY

This study utilized two methods of conducting research. For the first method, information on requirements for insurance on public agency projects was obtained by reviewing the standard specifications of 45 state highway agencies and 13 major municipalities. These specifications were obtained from the Department of Civil Engineering at the University of Washington. It was felt that it was important that the agencies that were compared should have similar functions, because different functions would likely require varying types of insurance. For example, a port authority would probably be more sensitive to water-borne hazards, while a housing authority might be more concerned about fire hazards. This would be reflected in the types of insurance required. It would be difficult to try to compare the insurance requirements of dissimilar agencies; thus, for this study the state agencies were all highway agencies and the local agencies were public works agencies for cities.

A checklist of insurance requirements was developed after reviewing a few specifications. Questions relating to these requirements were developed in an attempt to address all insurance aspects of the general conditions of the specifications (see Figure 1).

The second method obtained information on factors affecting the cost of construction insurance by personal

AGENCY ________________
SPECIFICATION DATE______________

1. Is liability insurance required before beginning work?
2. If yes, what are the minimum limits required for the following:
BODILY INJURY;
each person _______
each occurrence_________
aggregate__________
PROPERTY DAMAGE;
each occurrence _______
aggregate_________
3. What extended coverages are necessary?
4. Is worker's compensation insurance required?
5. Is employer's liability insurance required?
6. Is automobile liability insurance required?
What limits?
7. Is it necessary for an insurance certificate to be filed with the contracting agency?
8. Does the agency provide a special form for submittal of the insurance certificate?
9. Must a provision be made in the policy that the owner (agency) be notified if the insurance policy is cancelled or lapses?
10. Can the agency refuse to make progress payments if the policy is cancelled or lapses?
11. Is an Additional Insured Endorsement required?
12. Is an Indemnification Clause required?
13. Any other insurance required?

Figure 1 - CHECKLIST FOR GOVERNMENT CONSTRUCTION CONTRACT SPECIFICATION REVIEW

interviews with several insurance companies who underwrite construction insurance. Input was sought from the insurance underwriters rather than insurance agents, because the underwriters are actually underwriting the contractors. The agents, on the other hand, are intermediaries between the contractors and the insurance companies, and it was felt that their perspective on factors affecting costs would differ from the underwriters. Interviews were sought with all the major underwriters with offices in Seattle. A personal interview was deemed most appropriate for this study because the information sought was largely subjective, dealing primarily with the agent's impressions and experiences.

A questionnaire was developed after studying various construction journals that discussed issues in construction insurance. The questionnaire was not intended to provide data that would sustain statistical rigor, but rather to determine if there is a consensus among insurance companies as to what the important factors are when deciding whether to insure a particular contractor, and when setting premium rates (see Figure 2).

INSURANCE COMPANY INTERVIEW
COMPANY______________
DATE______________
PERSON INTERVIEWED________________

GENERAL QUESTIONS

1. What types of insurance do you offer to the construction industry?
2. If 100 construction contractors requested insurance from your insurance company, how many would you deny coverage to?
3. Do you require subcontractors who work for a general contractor insured by your company to carry the same insurance as the general contractor?
4. Are there any specific policies that you are reluctant to give?
5. Do you offer dividends to contractors? On what basis?
6. Since the liability crisis of the mid-80's, do contractors remain with your company for all coverages or is shopping around for different coverages more common?
7. Do contractors ask you to review insurance requirements in the contract specifications?
8. Are some types of insurance coverages not adequately included in construction contracts?

CONTRACTOR RISK ASSIGNMENT

1. When one of your clients' policies comes due for renewal, what is the importance (on a scale of 1 to 10) of each of the following factors on assigning risk, thus premium rates:
a) contractor's construction experience
b) dollar volume of work the past year
c) net worth of company
d) profitability during the past year
e) claims history
f) principal type of construction
2. If an experienced contractor that has never before bought insurance from your company comes to you desiring coverage, what is the importance (on a scale of 1 to 10) of each of the following factors on assigning risk, thus premium rates:
a) contractor's construction experience
b) dollar volume of work the past year
c) net worth of company
d) profitability during the past year
e) claims history

Figure 2 - Insurance Company interview sheet

f) principal type of construction
3. If a construction company is formed and comes to you looking to purchase insurance, what is the importance (on a scale of 1 to 10) of each of the following factors on assigning risk, thus premium rates:
a) construction experience of the principle of the firm
b) expected dollar volume of work
c) debt burden of company
d) principal type of construction
e) business outlook for that particular type of construction

INSURANCE TYPES

Liability
1. Consider a $1 million building project, scheduled to take 7 months to complete. What general liability limits would you recommend, and how much would the premiums cost? (assume a reputable, experienced general contractor).
What umbrella coverage would be appropriate for this size project?
2. Now consider a $10 million building project, scheduled to take 24 months to complete. How would the liability limits change, and how much more would the premiums be? (same contractor).
What umbrella coverage would be appropriate for this size project?
3. For the two projects identified in (1) and (2) above, how would the premiums differ from a claims-made policy versus an occurrences form?
4. What are the methods used by contractors to lower liability premiums?
5. Do you use experience modification ratings for setting premiums on contractor's liability policies?
6. For umbrella coverage, what is the lower and upper limits on what your company will offer?
7. Will you accept another company's basic liability policy as the deductible amount on an umbrella policy you provide?
8. If there is a hold-harmless clause in the construction contract between the contractor and the owner, does the basic liability policy cover it?
9. If not, what type of policy needs to be purchased to cover the indemnification clause?

Builders Risk
1. Consider the $1 million project again. What Builder's risk insurance limits would the typical contractor ask for, and what would the premiums cost?
2. Again, now consider the $10 million project. What changes to limits and premiums would occur?
3. In general, do you feel that contractors are purchasing

Figure 2 (cont.) - Insurance Company interview sheet

enough builders risk coverage to adequately cover losses?
4. What are the common ways that contractors lower their Builders Risk premiums?
5. What are typical exclusions in Builders Risk policies?
6. Do you use experience modification ratings for setting premiums on contractors Builders Risk policies?

Wrap-up
1. Have you ever written a wrap-up insurance policy?
2. How would the limits and premiums be on the $1 million and $10 million dollar building if the owner purchased wrap-up insurance?

Equipment/Automobile
1. What factors come into play when setting premium rates for comprehensive automobile insurance for jobsite vehicles?
2. What factors affect equipment insurance rates (damage only)?

Keyman
1. Does your company provide keyman insurance policies?
2. Approximately what percentage of companies will purchase this type of policy?
3. What limits will you provide?

Figure 2 (cont.) - Insurance Company interview sheet

A. SPECIFICATION REVIEW CHECKLIST

The following questions were used to determine what insurance was required by state highway and municipal public works agencies. After each question is a description of what the purpose of each question was.

Is liability insurance required before beginning work? The specifications would indicate if liability insurance was required prior to commencement of work. If no mention was made of liability insurance, it was considered to not be required.

If yes, what are the minimum limits required? If the state required liability insurance, what limits for bodily injury and property damage were listed? Did the specifications break out the limits by per person, each occurrence and aggregate, for bodily injury and by each occurrence and aggregate for property damage?

What extended coverages are necessary? Do the specifications require any further extended coverages to the general liability policy? These coverages would indicate that the agency is particularly concerned about these risks, necessitating inclusion to the policy.

Is worker's compensation insurance required? Although worker's compensation laws are in effect in every state, the specifications may require that a certificate of worker's compensation insurance be filed to prove that the insurance is carried.

Is employer's liability insurance required? The contractor may be required to obtain employer's liability insurance in addition to the worker's compensation insurance to protect against claims made by employees choosing to seek compensation greater than that provided by worker's compensation.

Is automobile liability insurance required? Automobile insurance is not included in the general liability policy. Because most contractors have jobsite vehicles that can potentially cause damage or injure people, the specifications may require automobile liability insurance.

What limits are required on automobile liability insurance? The limits to the automobile insurance may be specified.

Is it necessary for an insurance certificate to be filed with the contracting agency? The contractor may be required to file a copy of the insurance certificate with the agency prior to commencement of work.

Does the agency provide a special form for submittal of the insurance certificate? The contractor may be required to coordinate with the insurance agent to provide the insurance coverage information on the required form. Most agents knowledgeable about the requirements of public agencies may already have these forms available.

Must a provision be made in the policy that the owner (agency) be notified if the insurance policy is cancelled or

lapses? The public agency may contractually establish a basis to halt progress payments, if the insurance policy is cancelled. Otherwise the agency may not even be aware of the cancellation. It is also important for the insurance agency to be aware of different projects undertaken by the contractor so a cancellation notice can be sent to the appropriate agency.

Can the agency refuse to make progress payments if the policy is cancelled or lapses? The agency may establish a method to force the contractor to maintain the required insurance coverage.

Is an Additional Insured Endorsement required? The contractor may be required to include the agency under the coverage that is procured for the project.

Is an Indemnification Clause required? If the contractor is required to indemnify the agency, the contractor must purchase contractual liability insurance to provide protection from this assumed liability.

Any other insurance required? Other types of insurance may be required by the agency in the general conditions.

B. INSURANCE COMPANY INTERVIEWS

The following questions are those used for the personal interviews with the insurance underwriters. After each question, the information that was desired from that question is described.

1. GENERAL QUESTIONS

What types of insurance do you offer to the construction industry? This question will reveal the extent of coverage that the insurance company offers.

If 100 construction contractors requested insurance from your insurance company, how many would you deny coverage to? Many construction companies may be viewed as poor risks, and this question was intended to get a feel from the underwriter as to how many poor risks are out there. The requested response was an estimated percentage.

Do you require subcontractors who work for a general contractor insured by your company to carry the same insurance as the general contractor? The insurance company could find itself paying for the liability of subcontractors if the subcontractors do not have limits at least close to the general contractor's. This question is designed to determine another aspect of risk that the underwriter is willing to take on.

Are there any specific policies that you are reluctant to give? This question was meant to identify policies that consistently lose money, and underwriters will not write policies where their loss ratios are too high.

Do you offer dividends to contractors? On what basis? Safe contractors, that is, contractors who do not have a great number of claims, might feel that they should share in the savings. This was to determine if the underwriters held the same view.

Since the liability crisis of the mid-80's, do contractors remain with your company for all coverages or is shopping around for different coverages more common? From reading various periodicals, it seems that loyalty was not a strong suit between insurance companies and contractors. The answers obtained should determine the validity of that assumption.

Do contractors ask you to review insurance requirements in the contract specifications? Contractors may not understand the benefits and exclusions of various types of insurance. This question would determine if the underwriters were involved in forming an insurance package for a contractor. Another possibility is that an insurance agent would review the specifications.

Are some types of insurance coverages not adequately included in construction contracts? This question was meant to draw on the underwriters experience in loss claims. Are some contractors having to pay portions of judgements because they did not have adequate coverage?

2. CONTRACTOR RISK ASSIGNMENT

1. When one of your clients' policies comes due for renewal, what is the importance (on a scale of 1 to 10) of each of the following factors on assigning risk, thus premium rates:

a) contractor's construction experience

b) dollar volume of work the past year

c) net worth of company

d) profitability during the past year

e) claims history

f) principal type of construction

2. If an experienced contractor that has never before bought insurance from your company comes to you desiring coverage, what is the importance (on a scale of 1 to 10) of each of the following factors on assigning risk, thus premium rates:

a) contractor's construction experience

b) dollar volume of work the past year

c) net worth of company

d) profitability during the past year

e) claims history

f) principal type of construction

3. If a construction company is formed and comes to you looking to purchase insurance, what is the importance (on a scale of 1 to 10) of each of the following factors on assigning risk, thus premium rates:

a) construction experience of the principle of the firm

b) expected dollar volume of work

c) debt burden of company

d) principal type of construction

e) business outlook for that particular type of construction

This series of questions was meant to determine the importance that the underwriters place on the listed factors in assessing risk for three different situations in which contractors request insurance coverage. These factors include items that the contractor cannot change, but contractors must understand their importance from the underwriters viewpoint.

3. INSURANCE TYPES

a. Liability

Consider a $1 million building project, scheduled to take 7 months to complete. What general liability limits would you recommend, and how much would the premiums cost? (assume a reputable, experienced general contractor). The underwriter's experience was relied on with this question, which will determine general limits common today, and the cost of these policies.

What umbrella coverage would be appropriate for this size project? The same information was sought as the previous question.

Now consider a $10 million building project, scheduled to take 24 months to complete. How would the liability limits change, and how much more would the premiums be? (same contractor). The purpose of this question was to see if the liability limits and premiums change on projects with greater value.

For the two projects identified above, how would the premiums differ from a claims-made policy versus an occurrences form? The desired information was to see if the cost of these two types of policies would differ, because of the changed risk to the insurance company.

What are the methods used by contractors to lower liability premiums? Contractors are not totally powerless in regard to lowering their premiums--this question reveals actions by contractors that underwriters take into account when determining premium rates.

Do you use experience modification ratings for setting premiums on contractor's liability policies? The ratings will determine how much of an advantage an experienced, safe contractor will have over one that may be lagging in some of the safety aspects of construction.

For umbrella coverage, what is the lower and upper limits on what your company will offer? The answer to this will indicate the limits of umbrella coverage the insurance company offers. It can also be indicative of the potential size of judgements that have been or may be awarded.

Will you accept another company's basic liability policy as the deductible amount on an umbrella policy you provide? This question will show the extent to which the insurers were willing to mix its coverage with other insurance companies.

If there is a hold-harmless clause in the construction contract between the contractor and the owner, does the basic liability policy cover it? The contractor should be aware of the availability of this coverage in the general policy, and if it is not available, then it can be purchased as an extended coverage.

If not, what type of policy needs to be purchased to cover the indemnification clause? This would generally be a contractual liability policy, but the insurance company may have some other name for it.

b. Builder's Risk

Consider the $1 million project again. What Builder's risk insurance limits would the typical contractor ask for, and what would the premiums cost? This question is meant to determine not what the insurance underwriter would recommend, but what the contractor would ask for. Would the contractor attempt to get limits less than the value of the building? Or do contractors recognize that if the building burned down, the costs to clean up and rebuild might be greater than the original cost of the building, and as a result the contractor should get limits greater than the value of the building. Recognizing that the type of building constructed will determine the cost of builders' risk premiums, a range of premium values was sought rather than an estimated single cost.

Again, now consider the $10 million project. What changes to limits and premiums would occur?

This question determines if there are any differences in the limits purchased for the more expensive building.

In general, do you feel that contractors are purchasing enough builders risk coverage to adequately cover losses? Again relying on the underwriter's experience and knowledge of potential claims, the answer to this question will indicate if the contractor is exposing himself to out-of-pocket expenses if losses exceed the insurance limits.

What are the common ways that contractors lower their Builders Risk premiums? Like liability insurance premiums, builders risk policy premiums can be lowered by the contractor taking a proactive stance in some cases.

What are typical exclusions in Builders Risk policies? This will give some idea of those consequences that the underwriters feel are too risky to include in the general policy, and these exclusions must be purchased separately.

Do you use experience modification ratings for setting premiums on contractors Builders Risk policies? These ratings are one method the insurance companies use to assign premiums. Competent contractors likely prefer these ratings because the ratings give them a competitive advantage over unsafe contractors.

c. Wrap-up insurance

Have you ever written a wrap-up insurance policy? This determines how commonplace this type of policy is.

How would the limits and premiums be on the $1 million and $10 million dollar building if the owner purchased wrap-

up insurance? If the policy is commonly written, is its use substantially less expensive than everyone (owners, contractors, subcontractors) purchasing their own policies?

d. Equipment/Automobile insurance

What factors come into play when setting premium rates for comprehensive automobile insurance for jobsite vehicles? This question reveals the methods contractors can use to improve their rating for automobile insurance with the insurance company.

What factors affect equipment insurance rates (damage only)? Similar to automobile or property insurance, contractors can do many things to lower their premiums for equipment damage. This question identifies any specific actions or preventive measures that contribute to lower premiums.

e. Keyman insurance

Does your company provide keyman insurance policies? This question determines if contractors get keyman insurance through the commercial division of insurance companies as part of a total package, or if the insurance is purchased separately from the life insurance division.

Approximately what percentage of companies will purchase this type of policy? If keyman insurance is purchased from the commercial division, the number or percentage of construction companies that consider it a necessary business expense is desired, because this type of insurance is not likely required by the owner.

What limits will you provide? This question determines what limits the insurance company feels is adequate to keep a company afloat if one of the principals or other "key" personnel die or are otherwise unable to continue work.

CHAPTER FIVE

PRESENTATION AND ANALYSIS OF DATA

This chapter is separated into two sections--the first section will provide the results of the data analysis on the specifications review, and the second will provide an analysis of the information obtained through insurance company interviews. Appendices A and B provide all the results of the specification review and insurance company interviews, respectively. The data from these appendices is consolidated in tables in this chapter.

A. INSURANCE REQUIREMENTS IN THE GENERAL CONDITIONS

1. Requirements and Limits of Liability Insurance

The majority of states require that contractors have liability insurance prior to commencement of work (Table 1). Typical of the wording of the provision in the general conditions is from the Idaho Transportation Department:

> "The Contractor shall carry such public liability and property damage insurance that will protect him and the State from claims for damages for bodily injury, including accidental death, as well as for claims for property damages, which may arise from operations under the contract whether

such operations be by himself or by any subcontractor or by anyone directly or indirectly employed by either of them and the amounts of such insurance shall be not less than": (the limits are then listed).

Although some states do not contractually require insurance, they do have provisions in the general conditions that are designed to protect the state from potential liability. All states that did not require insurance had a statement in the indemnification clause of the specifications similar to this used by the Georgia Department of Transportation:

> In the event of "suits, actions, or claims" brought against the state, "so much of the money due the said Contractor under and by virtue of his Contract as may be considered necessary by the Department for such purpose may be retained for the use of the State"; "except that money due the Contractor will not be withheld when the Contractor produces satisfactory evidence that he is adequately protected by public liability and property damage insurance."

In effect, this provision means that the retainage and other monies due the contractor are serving as insurance for the state. This pool of funds can be "tapped" if an accident occurs and the contractor does not carry insurance.

All municipal agencies that were surveyed required liability insurance. A representative provision is from the City of Seattle:

> "The Contractor shall obtain and maintain in full force and effect during the term of the contract, public liability and property damage insurance."

Table 2 shows the amounts of insurance that contractors are required to carry during construction operations. Not all agencies that required insurance specified the necessary amounts, so the amounts only reflect information concerning those agencies that specified the limits. Typical wording comes from the Montana Department of Highways:

> "The public liability insurance shall be in the amount of at least $500,000 for each person and a total of $1,000,000 for each occurrence. The property damage shall be in the amount of at least $500,000 for one occurrence and $1,000,000 in the aggregate."

Of the agencies that stated the required limits of insurance, the difference between the highest and lowest

Table 1 - Is liability insurance required before beginning work?

	Yes	No
State Agencies	32	13
Local Agencies	13	0

Table 2 - Of the states that require insurance and identify limits, what are the average limits required for the following:

	State Agencies	Local Agencies
Bodily injury:		
each person-		
average	$493,750	$283,000
high	$1,000,000	$500,000
low	$250,000	$100,000
each occurrence-		
average	$541,670 ($865,630)*	$750,000 ($875,000)*
high	$3,000,000	$1,000,000
low	$250,000	$500,000
aggregate-		
average	$1,166,666	$750,000
high	$2,000,000	$1,000,000
low	$500,000	$500,000
Property damage:		
each occurrence-		
average	$337,500	$225,000
high	$1,000,000	$500,000
low	$25,000	$100,000
aggregate-		
average	$707,900	$417,000
high	$2,000,000	$500,000
low	$100,000	$250,000

* For agencies that did not specify the aggregate limits

limits was quite pronounced on all bodily injury and property damage limits. This can probably be attributed to the differences in the various state tort laws and how large the judgements are that are awarded to injured third parties.

In the section that provided the information on limits, the limits were sometimes stated in terms of combined limits bodily injury/property damage, rather than separating the bodily injury and property damage portions. This merely allows the contractor a small amount of flexibility in purchasing the general liability policy. It might be cheaper to buy more of the bodily injury coverage than the property damage, or vice versa.

Table 3 shows what extended coverages the various agencies deem necessary to be included in general liability policies. While some of these coverages may be included in the general liability policy, others are almost always excluded. The important matter is that these agencies are ensuring that the contractors have these coverages, if not in the general policy, then as an extended coverage. An example of the wording used is from the Arizona Department of Transportation:

> "The policy shall include coverage for bodily injury, broad form property damage (including

Table 3 - What extended coverages are necessary?

	State	Local
Premises and operations	2	4
Contractual Liability	6	7
Broad form property damage	5	4
XCU	9	7
Personal injury	4	4
Railroad	1	0
Asbestos	0	1
Contractors Protective	8	2
Owners Protective	5	2
Completed Operations	8	7

completed operations), personal injury (including coverage for contractual and employee acts), blanket contractual, independent contractors, products and completed operations. Further, the policy shall include coverage for the hazards commonly referred to as XCU (explosion, collapse and underground). The products and completed operations coverage shall extend for one year past acceptance, cancellation or termination of the work."

These extra requirements for insurance must be obeyed by contractors and conveyed to their insurance agents to ensure that these coverages are included in the price quotation. If the extended coverages are left out of the contractor's bids, these coverages will have to be included prior to signing the contract. The additional cost to purchase these extended coverages will come out of the contractor's profits.

2. Worker's Compensation Requirements

Worker's Compensation laws are in effect in all 50 states, so it is no surprise to see in Table 4 that the majority of state and local agencies require worker's compensation insurance as part of the insurance coverage. The agencies that did not require the insurance in the general conditions may have excluded it because the general

Table 4 - Is worker's compensation insurance required by contract?

	YES	NO
State Agencies	26	19
Local Agencies	11	2

conditions all have a provision requiring contractors to obey all federal and state laws, and the requirement might be considered to be under these laws, making the stipulation in the contract redundant.

Table 5 shows the requirement for employer's liability insurance. A small percentage of states require this coverage, while more than half of the municipal specifications contained this provision. This provision may reflect that the agencies who require it feel that the worker's compensation laws do not adequately protect workers. Requiring this insurance is another means of protecting the agency from financial loss in the event of an injured worker suing an employer under contract with the agency.

3. Automobile Liability Coverage

The great majority of the municipal agencies surveyed require automobile liability insurance, but only one-third of state agencies did. This is hard to understand, especially since highway construction involves contractors utilizing a great number of vehicles. However, these states may have laws that require all vehicles to be insured, and thus a provision in the contract would be redundant. For out-of-state contractors, it would be advisable to check the state laws if unfamiliar with the requirements, because the contractors may be forced to purchase insurance that was not

Table 5 - Is employer's liability insurance required?

	YES	NO
State Agencies	6	39
Local Agencies	8	5

Table 6 - Is automobile liability insurance required?

	YES	NO
State Agencies	15	30
Local Agencies	12	1

LIMITS (Average)

	State agencies	Local agencies
Bodily injury:		
each person-	$250,000	$350,000
each occurrence-	$490,000	$1,000,000
Property damage:		
each occurrence-	$220,000	$280,000
Combined limits:		
each occurrence-	$900,000	$750,000

anticipated, raising the total cost of insurance and reducing the profit.

4. Requirements and Submittal of Insurance Certificates

As can be seen from Table 7, sixteen of forty-five state agencies do not require certificates of insurance to be filed prior to the start of projects. This is surprising, because the certificate is the only proof the state has that the contractor is maintaining the proper insurance. One of the purposes of requiring insurance is to avoid litigation, but this is likely to happen if a mishap occurs and the contractor does not have insurance to cover the loss. A certificate is easy to provide, and the administrative effort to file and maintain them is small compared to the potential consequences if a contractor has no insurance and a claim is filed against the agency. All of the local agencies required certificates. The City of Cincinnati states their requirement as:

> "Before any work embodied in the Contract will be permitted to be performed, the Contractor shall furnish two copies of a certificate of insurance," ... "as evidence that the Contractor has procured comprehensive general liability insurance."

The requirement of a special form on which to submit the certificate is somewhat of an inconvenience to the

Table 7 - Is it necessary for an insurance certificate to be filed with the contracting agency?

	YES	NO
State Agencies	29	16
Local Agencies	13	0

contractor. From the state's point of view, however, this is a good provision because they will not have to interpret several different types of certificates. Not many agencies have done this, as only 13 percent of state agencies and 8 percent of local agencies provide a special form for submitting proof of insurance (Table 8). The Indiana Department of Highways states the provision in this way:

> "Prior to commencing work, a certificate of insurance shall be filed on a form furnished by the Department, or other acceptable form."

This provision is a small item that contractors must heed to avoid having to resubmit insurance forms.

5. Consequences of Cancelled Insurance Policies

Agencies may require that they be notified if the contractor's insurance coverage is cancelled or lapses. Provisions such as this are common as 38 percent of all state agencies and 84 percent of all municipal agencies include them (Table 9). Of the states that require insurance certificates, 59 percent must be notified in the event of a cancellation. The low percentage of states requiring this notification seems unusual, because insurance companies can easily provide this service, and the agency benefits from the provision. A typical provision of this

Table 8 - Does the agency provide a special form for submittal of the insurance certificate?

	YES	NO
State Agencies	6	39
Local Agencies	1	12

Table 9 - Must a provision be made in the policy that the owner (agency) be notified if the insurance policy is cancelled or lapses?

	YES	NO
State Agencies	17	28
Local Agencies	11	2

type for the Illinois Department of Transportation reads:

> "All such insurance must include an endorsement whereby the insurer agrees to notify the Department at least 30 days prior to nonrenewal, reduction or cancellation."

Table 10 shows how many agencies reserve the contractual right to withhold payment if contractors allow their insurance coverage to lapse. This provision can have serious consequences for contractors. If contractors let their insurance coverage lapse in order to save money on the premiums, their cash flow may suffer through delayed progress payments. This disruption in payments can be devastating to contractors who regularly operate on a small margin. The New Jersey Department of Transportation states this right to withhold payments as follows:

> "In the event the Contractor fails or refuses to renew its insurance policy, or the policy is canceled, terminated, or modified so that the insurance does not meet the requirements of this Subsection, the State may refuse to make payment of any further monies due under this Contract or refuse to make payment of monies due or coming due under other contracts between the Contractor and the State."

Table 10 - Can the agency refuse to make progress payments if the policy is cancelled or lapses?

	YES	NO
State Agencies	7	38
Local Agencies	1	12

As can be seen in this statement, the agency can also withhold money owed the contractor on other contracts with the state.

6. Additional Insured Endorsements

The effect of an additional insured endorsement is to provide the named insured, usually the owner, with insurance coverage along with the contractor. The contractor does not have to pay extra for this endorsement. This clause benefits owners because they are provided insurance at "no cost." However, because owners are the secondary insureds, they have secondary rights if claims are filed against both the contractor and owner. The contractor, as the primary insured, will be protected first in case of a dual suit.

Table 11 shows that twenty percent of state agencies and slightly more than fifty percent of local agencies require that they be named as additional insureds on policies. An example of the clause stipulating that the agency be named an additional insured follows from the Ohio Department of Transportation:

> "The Commercial General Liability Insurance policy shall name the State of Ohio, Department of Transportation, its officers, agents and employees as additional insureds with all rights to due notices in the manner set out above."

Table 11 - Is an Additional Insured Endorsement required?

	YES	NO
State Agencies	9	36
Local Agencies	7	6

7. Hold Harmless Clauses

The effect of a hold harmless clause is to increase the risk assumed by the contractor. To transfer this risk to an insurance company, the contractor will have to purchase more insurance (contractual liability in this case), which will increase the total insurance burden. Table 12 shows that every state agency had an indemnification clause in its general conditions. A majority of local agencies had the same provision. Most agencies used the limited-form indemnification clause, which means contractors are held liable only for their own negligence. Sample wording for a state agency comes from the Alabama Highway Department:

> "The Contractor shall indemnify and save harmless the State, the Department, the County, the Municipality, the officers and employees from all suits, actions, or claims of any character brought because of any injuries or damages received or sustained by any person, persons, or property due to the operations of the said Contractor; or because of or in consequence of any neglect in safeguarding the work; or through use of unacceptable materials in constructing the work; or because of any act or omission, neglect, or miscondut of said Contractor..."

A few agencies used the intermediate form, where contributory negligence of the state is waived and the entire burden of defending against third-party claims is placed on the contractor. Sample wording of this type of indemnification clause comes from the Connecticut Department of Transportation:

> "The Contractor shall indemnify and save harmless the State, the Department and all of its officers, agents and employees from all suits, actions or claims of any character, name or description brought for, or on account of any injuries or damages received or sustained by any persons or to any property as a result of, in connection with, and pursuant to the execution and performance of the contract."

8. Other Types of Required Insurance

A public agency might have particular needs in protecting itself against claims from specific mishaps. These needs will be reflected in any insurance requirements beyond standard liability coverages, and are shown in Table 13. Three types of additional coverage were specified. Railroad protective liability insurance was required when the project involves work on, over or under the right-of-way of any railroad company. The Mississippi State Highway

Table 12 - Is an Indemnification Clause required?

	YES	NO
State Agencies	45	0
Local Agencies	8	5

Department states this requirement as:

> "Prior to starting any work on Railroad Company's property, the Contractor shall furnish satisfactory evidence to the Highway Commission and to the Railroad Company that he has obtained in addition to any other required forms of insurance or bonds, insurance of the forms and amounts hereunder set out in paragraphs 1, 2, and 3."

Builders' risk insurance was another coverage required by agencies. None of the state highway departments required it, possibly because they rarely engage in building construction projects, which have higher inherent fire damage risk. More than half of the local agencies required builder's risk insurance, presumably because they undertake a significant amount of building construction. The City of Cincinnati specifies that:

> "The insurance required of the Contractor shall include an "All Risk" Builder's Risk policy which shall provide Fire and Extended Coverage, Vandalism and Malicious Mischief coverage for an amount equal to one hundred percent (100%) of the completed value of the entire project and shall be written in the Owner's and Contractors name. Such

insurance shall be kept in full force and effect until all work is fully completed and accepted by the City of Cincinnati."

Table 13 - Any other insurance required?

	State Agencies	Local Agencies
Railroad Protective	12	1
Utilities	1	0
Builders' Risk	0	7

B. INSURANCE COMPANY INTERVIEWS

The results of the interviews with six insurance underwriters are contained in Appendix B and discussed in this section. Where appropriate, tables are used to present the data in summary form.

1. General Informational Questions

The insurance underwriters were asked a number of questions that were designed to provide information about the company and to obtain general impressions about how the company does business.

The first question determined what insurance coverages were offered. All of the companies provided a broad range of insurance policies including casualty (liability) and property (builder's risk). Also available was worker's compensation insurance, although the underwriters did not write much of this insurance because Washington State is a monopolistic fund state. Some of the companies claimed that while they offered the major types of commercial construction insurance, they specialized in certain kinds, and were able to provide better rates and coverages for that specialty.

When asked what percentage of construction contractors are denied insurance coverage, the underwriters gave a range from 5 to 67 percent. This could be interpreted in many ways. The insurers that had a low rejection rate may have been in a position where cash was needed, and since the way to generate income in the insurance industry is to write many policies, very few contractors are denied the insurance. Just the opposite might be concluded from the insurance companies with a high rejection rate. The companies that do not have a strong need for more cash flow are able to reject more risky contractors in need of insurance. Another reason for the high rejection rate is that those companies might have higher standards when screening potential customers (although none of the underwriters stated this). It is interesting to note that the companies with the low rejection rates sell only commercial insurance and no private policies. They may not be able to be as selective as those companies who also provide private insurance, due to the lower volume of customers.

All but one of the insurance companies interviewed required that subcontractors who work with their insured contractors must obtain the same types of insurance. In most cases insurers require that the same limits be obtained. This can cause the contractor's premiums to be lowered, as it substantially reduces the risk to the insurance company of having to settle suits brought against the general contractor because of the negligence of a subcontractor.

Two-thirds of the companies interviewed were not providing any liability policies with a hazardous waste endorsement. The stated reason is that the risk was too difficult to determine. Two of the companies were not writing worker's compensation insurance because those policies were not profitable to them at the time. One company would not provide builder's risk insurance on multi-story buildings because this type of building is not being built in numbers suitable for effectively spreading the risk.

None of the companies interviewed offered dividends to general contractors. However, one-third offered dividends to specialty contractors. The basis for payment was the loss ratio for the subcontractor's group classification. For example, if the sheet metal contractors had a low number of claims as a group, they might all get a dividend,presuming that no firm had excessive claims. Conversely, if the electrical contractors had a large number of claims as a group, no one would receive a dividend.

The liability crisis of the mid-1980s placed contractors and insurers in an adversarial position (McIntyre, 1986). Information was sought as to whether contractors shopped around for different coverages as a result of the strained relationship. The underwriters were unanimous in their opinion that contractors have always shopped around for the best price on insurance, and the liability crisis did nothing to increase this practice.

Contractors may seek to ensure that they have purchased the proper insurance for particular projects. A question was asked in this regard to determine if there was direct contact between the contractor and the underwriter prior to bidding on a project. All underwriters stated that occasionally they had direct dealings with contractors, but the review of the contract specifications was usually done by an independent insurance agent.

The last general question asked was if, in the underwriters opinion, construction contracts contained adequate provisions for insurance to protect the owner. The majority of underwriters agreed that most contracts were adequate. One underwriter stated that "quality of work" insurance should be a requirement for construction projects. This type of insurance would protect against inferior workmanship in finished projects.

2. Contractor Risk Assignment

Through a series of questions, the importance of six variables in determining a contractor's premium rates was established. These variables are the contractor's construction experience, the dollar volume of work completed the previous year, the net worth of the firm, the profitability during the past year, the firm's claims history, and the principal type of construction undertaken. With these factors in mind, three contractors with different levels of experience were described to see how the importance of the factors would change with each contractor. In one scenario the contractor was an established firm who has been and is now a client; in another scenario the contractor was an established firm who has never had an insurance policy with the insurance company before; and in the last scenario the contractor was a new firm buying insurance for the first time. Tables 14, 15, 16 show how the different factors rate for the three contractors.

As can be seen from the tables, all of the factors were important to the underwriters when determining premium rates. This was true regardless of the experience or familiarity with the contractor. Claims history, construction experience, and type of construction were the most important factors.

3. Insurance Types

A series of questions was asked about different types of insurance. The purpose of these questions was to determine specific factors that affect different types of insurance.

a. Liability Insurance

Two hypothetical building projects were presented to the underwriters for analysis. The desired information was the limits of coverage and the costs of general liability insurance and umbrella coverage.

The first hypothetical building was a $1 million project that was scheduled to take seven months to complete. The building contractor was assumed to be reputable and

Table 14 - On a scale of 1 to 10 (1 meaning no importance and 10 meaning very important), what is the importance of each of the following factors on assigning risk to an experienced contractor who is currently a client?

	AVG	LOW	HIGH
Construction experience	8	5	10
Dollar volume in past year	6	4	9
Net worth of company	7	4	9
Profitability in past year	7	4	9
Claims history	9	8	10
Main type of construction	9	7	10

Table 15 - On a scale of 1 to 10 (1 meaning no importance and 10 meaning very important), what is the importance of each of the following factors on assigning risk to an experienced contractor who has never purchased insurance from your company?

	AVG	LOW	HIGH
Construction experience	9	5	10
Dollar volume in past year	7	4	9
Net worth of company	7	4	9
Profitability in past year	7	4	9
Claims history	10	9	10
Main type of construction	9	8	10

Table 16 - On a scale of 1 to 10 (1 meaning no importance and 10 meaning very important), what is the importance of each of the following factors on assigning risk to a new contractor seeking to buy insurance for the first time?

	AVG	LOW	HIGH
Construction experience/principal	9	8	10
Expected dollar volume	8	5	10
Debt burden	9	6	10
Main type of construction	9	8	10
Business outlook for that type of construction	8	4	10

experienced. Each underwriter recommended that the minimum liability limits should be at least $1 million dollars. However, the cost of the policy varied greatly. Three thousand dollars ($3,000) was the low cost for the policy period, while the high cost was thirty thousand dollars ($30,000). The average cost was fourteen thousand dollars ($14,000). Umbrella coverage limits were recommended that ranged between $1 million and $10 million, with an average recommended limit of $3.7 million.

The second hypothetical building was a $10 million project scheduled to take two years to complete by the same contractor. All underwriters recommended the same liability limits as the $1 million project. The premiums would increase, however, because they are based on payroll. The umbrella coverage recommended was increased to an average of $6.7 million. One underwriter stated that the umbrella coverage should be equal to the net worth of the contractor.

The underwriters were asked how much the premiums would differ if written on a claims-made basis rather than on an occurrences basis. Of the five companies that offered claims-made coverage, all offered the coverage less expensively than the occurrences form. The discount ranged from five to thirty percent during the first year, with a progressive reduction over a period of five years. The discount is not given after five years because the extended reporting period that is a part of claims-made insurance effectively makes the policy an occurrences form.

The underwriters identified methods that contractors can use that are effective in lowering liability premiums. The most effective method was for the contractor to have an effective safety program. A minimal loss experience was the second most common manner that effectively lowers liability premiums. If the contractor has an effective safety program, a low loss experience should occur as a result. Also mentioned were using specified materials, having good supervisors, maintaining control over the subcontractors on the job, and avoiding certain types of work.

All of the insurers reviewed the loss experience of contractors and based the premiums for general liability policies on this claims history.

The underwriters were asked to provide the lower and upper limits of umbrella coverage that their companies would offer. The lower limits for all companies was $1 million. The upper limits varied from $10 million to $30 million. Reinsurance with other insurance companies was mentioned as a method contractors can use to increase their umbrella coverage above the upper limits that one insurance company will provide.

Only one company allowed another insurer to provide the general liability policy as the deductible on umbrella coverage the company underwrote. The rest required that the general policy must be purchased from them if umbrella coverage was desired.

All companies surveyed included contractual liability coverage in the general liability policy. This precludes the contractor from having to purchase this coverage separately.

b. Builder's Risk Insurance

The same two hypothetical building projects were used as examples to determine builder's risk limits and costs. For both projects, the underwriters were asked what limits they would recommend and the cost of this coverage. For the $1 million project, all said that the contractors should ask for the full value of the project. Determining the cost of premiums was difficult because the rates depend on many factors, the most important being the material used to construct the building. Thus a range of values was sought, from a worst case situation where the building is wood-framed, to a situation where the building is constructed with masonry. The costs ranged from $300 to $5,000 for the policy period of seven months.

For the $10 million project, the same logic was used by contractors, i.e., the full value of the building was insured. Depending on the type of materials used, the cost of premiums ranged from $3,000 to $40,000 annually.

The majority of the underwriters believed that contractors purchase enough builder's risk insurance to cover potential losses. Those who did not feel this way thought that contractors underestimate the actual costs of reconstruction if the building burned down or was otherwise severely damaged. Additional costs must be considered. Examples include clean-up costs, and inflation, which might conservatively increase the cost of construction of a building from $1 million to $1.05 million in one year.

There are several methods used by contractors to lower their insurance premiums, according to the underwriters. The most common way is to raise the deductible limit. Safe building practices were mentioned, as well as loss prevention. Loss prevention included measures such as on-site security personnel, fences around the construction site, and general "theft proofing". Contractors can also build with fire resistant materials if given a choice. Only one company used experience modification ratings, however. This would seem to indicate that past performance or claims history is not as important for builder's risk insurance as it is for liability coverage.

The most common exclusion for builder's risk policies is earthquake coverage. The majority of underwriters also excluded nuclear hazards (war or radiation) and floods. Faulty design, insects, unexplained loss, faulty workmanship, and governmental action were other exclusions.

<u>c. Wrap Up Insurance</u>

The underwriters indicate that wrap-up insurance is rarely used. Only one underwriter had ever been involved with this type of coverage, and that was written many years ago. The premiums were paid on a retrospective basis, where the owner provided coverage for the project. The actual premium was based on the amount of actual claims.

d. Automobile Insurance

The underwriters were asked to provide the factors that determine the cost of comprehensive automobile coverage. Most commonly mentioned were the vehicle size and location. Licensing of drivers and maintenance of the vehicles were other important factors, along with the distance traveled and the nature of the safety programs. When asked the same question for the factors affecting the rates on equipment floater insurance, responses focused first on the type and value of equipment. Next was the maintenance of the equipment and operator experience, just as it was for the autos.

e. Keyman Insurance

The companies that offered private insurance offered keyman insurance coverage, which is essentially life insurance. However, the insurance was purchased through the life insurance division of the company, so no information on the costs or limits could be obtained. The underwriters felt that almost all large firms had some form of keyman insurance to protect against the loss of life of one or more of the company principals.

CHAPTER SIX

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

A. SUMMARY

To determine the insurance requirements of public agencies that contract construction projects, the general conditions of several agency specifications were investigated. The agencies chosen were state highway departments and municipal public works departments. A checklist was developed to record provisions relating to insurance coverage, and the data was examined to identify major differences or consistencies among agencies.

It was found that the public agencies were consistent in requiring contractors to obtain insurance before construction begins. All agencies required liability insurance in one form or another. However, the insurance limits and types of coverage required varied considerably among the agencies. For example, the Missouri Department of Transportation had minimum required limits of $250,000 for bodily injury, while the New Jersey Department of Transportation required minimum limits of $3,000,000.

Another common requirement was for the contractor to furnish the agency with an insurance certificate as proof of insurance, although many agencies are not using this provision to their advantage. The benefits far outweigh the filing costs to maintain these certificates. The majority of agencies who require the certificate further protect themselves by requiring notification if the policy is cancelled. Among this majority, a few have contractually reserved the right to suspend progress payments if the insurance is cancelled or lapses.

Indemnification clauses were required by all highway departments, and by a majority of the municipalities. These clauses indicate that the agencies recognize the risk to their organizations. To protect the organization the hold-harmless agreements are an effective method of keeping the liability burden on the contractors. Another measure of protection, requiring the agency to be named as an additional insured on the insurance policies, was used by only a few agencies. Another little-used provision was the requirement for extended coverages, as some agencies required several additional coverages, while others specified none.

To determine the importance of various factors to insurance companies when setting premium rates for construction contractors, personal interviews were conducted with underwriters from six major insurance companies with offices in Seattle. As with the specification reviews, the data obtained was examined to determine differences and consistencies.

The interviews revealed that with the exception of prices, there was a fair amount of consistency among underwriters. The most important information disclosed was that while contractors have little control over the base rates charged for insurance premiums, they have great control over the multipliers used by insurance companies when setting rates for different contractors. If a contractor utilizes a well-trained work force and maintains safe jobsites, the frequency of injuries and property damage should lessen. A good safety record is an effective means of reducing the premiums paid for all coverages. Other important factors within the contractors control are profitability of the firm and the type of construction work undertaken.

B. CONCLUSIONS

The results of this study can be used by the construction industry to better understand the factors affecting insurance premium rates. From reviewing insurance requirements in the general conditions, it can be concluded that there are significant differences between public agency insurance requirements. Because the requirements vary, missed details can have an adverse affect on the contractor's financial position.

It can be concluded after interviewing several underwriters from insurance companies that based on prices quoted for various coverages, there is great variance in prices. Even though the premiums quoted were at best rough estimates, some were ten times greater than others. Based on the information obtained from the underwriters, it appears that prices for insurance are not "cast in stone," and by demonstrating efforts to control losses, contractors can negotiate for lower premium rates.

C. RECOMMENDATIONS

If bidding on projects for many agencies, contractors should read and understand all insurance provisions of the contract because these provisions vary among different agencies. Contractors should also ensure that the insurance and limits specified will protect their own interests in the event of a mishap, and purchase more coverage if necessary. When shopping for insurance coverage, contractors must realize that prices for the same coverage will vary among insurance companies. Contractors should also understand the factors that affect premium rates and use this knowledge when negotiating with insurers on insurance prices.

Further research that would expand upon this work could include the following:

1. Examine the insurance requirements of other types of public agencies.

2. Private owners were not considered in this study, so there is potential to examine the insurance requirements of banks, along with the general conditions of the American Institute of Architects (AIA) contract for construction.

For the factors affecting premium rates, the following research could be done:

1. A more in-depth study can be done highlighting specific coverages, perhaps using a case study.

2. Another possibility would be to interview several underwriters in the same company to see if there is consistency in their responses.

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APPENDIX A

SUMMARY SHEETS FOR THE SPECIFICATION REVIEW

Question: Is liability insurance required before beginning work?

STATE AGENCIES	YES	NO
ALABAMA	X	
ALASKA	X	
ARIZONA	X	
ARKANSAS		X
CALIFORNIA		X
COLORADO	X	
CONNECTICUT	X	
DELAWARE		X
FLORIDA		X
GEORGIA		X
HAWAII		X
IDAHO	X	
ILLINOIS	X	
INDIANA	X	
KANSAS	X	
KENTUCKY	X	
LOUISIANA		X
MARYLAND	X	
MASSACHUSETTS	X	
MICHIGAN	X	
MINNESOTA		X
MISSISSIPPI	X	
MISSOURI	X	
MONTANA	X	
NEBRASKA	X	
NEW HAMPSHIRE	X	
NEW JERSEY	X	
NEW MEXICO	X	
NEW YORK	X	
NORTH CAROLINA		X
NORTH DAKOTA	X	
OHIO	X	
OKLAHOMA	X	
PENNSYLVANIA	X	
RHODE ISLAND		X
SOUTH CAROLINA		X
SOUTH DAKOTA	X	
TENNESSEE		X
TEXAS	X	
UTAH	X	
VERMONT	X	
WASHINGTON	X	
WEST VIRGINIA	X	
WISCONSIN	X	
WYOMING		X
LOCAL AGENCIES		
CHICAGO	X	
CINCINNATI	X	
DALLAS	X	
EL PASO	X	
HONOLULU	X	
LOS ANGELES	X	
LOUISVILLE	X	
MILWAUKEE	X	
PHOENIX	X	
SAN FRANCISCO	X	
SEATTLE	X	
TAMPA	X	
TULSA	X	

Question: If yes, what are the minimum limits required for the following?

	BODILY INJURY:			PROPERTY DAMAGE:	
STATE AGENCIES	each person	each occ.	aggregate	each occ.	aggregate
ALABAMA	100,000	300,000		50,000	100,000
ALASKA		500,000	1,000,000		
ARIZONA		1,000,000			1,000,000
ARKANSAS					
CALIFORNIA					
COLORADO		500,000	2,000,000	500,000	2,000,000
CONNECTICUT		500,000		100,000	200,000
DELAWARE					
FLORIDA					
GEORGIA					
HAWAII					
IDAHO		500,000		100,000	
ILLINOIS		1,000,000		500,000	1,000,000
INDIANA		500,000		100,000	300,000
KANSAS					
KENTUCKY					
LOUISIANA					
MARYLAND					
MASSACHUSETTS	500,000	1,000,000		500,000	1,000,000
MICHIGAN		500,000	500,000	250,000	250,000
MINNESOTA					
MISSISSIPPI	500,000	1,000,000		500,000	1,000,000
MISSOURI	100,000	250,000		100,000	250,000
MONTANA		1,000,000	2,000,000		
NEBRASKA		250,000	500,000		250,000
NEW HAMPSHIRE					
NEW JERSEY	1,000,000	3,000,000		500,000	1,000,000
NEW MEXICO		500,000	1,000,000	500,000	1,000,000
NEW YORK		1,000,000		500,000	1,000,000
NORTH CAROLINA					
NORTH DAKOTA	500,000	1,000,000		500,000	1,000,000
OHIO					
OKLAHOMA					
PENNSYLVANIA					
RHODE ISLAND					
SOUTH CAROLINA					
SOUTH DAKOTA					
TENNESSEE					
TEXAS		300,000		25,000	100,000
UTAH	1,000,000	1,000,000		1,000,000	1,000,000
VERMONT		1,000,000		250,000	500,000
WASHINGTON					
WEST VIRGINIA	250,000	500,000		100,000	500,000
WISCONSIN					
WYOMING					
LOCAL AGENCIES					
CHICAGO	500,000	1,000,000		300,000	500,000
CINCINNATI					
DALLAS					
EL PASO					
HONOLULU		500,000		100,000	
LOS ANGELES	250,000	500,000	500,000	100,000	250,000
LOUISVILLE					
MILWAUKEE		1,000,000	1,000,000	500,000	500,000
PHOENIX					
SAN FRANCISCO					
SEATTLE					
TAMPA		1,000,000		250,000	
TULSA	100,000	1,000,000		100,000	

Question: What extended coverages are necessary?

STATE AGENCIES	COVERAGES
ALABAMA	N/M
ALASKA	operations/premises,contractual,broad form prop. dam.,personal injury, completed operations
ARIZONA	broad form property damage, personal injury, blanket contractual, XCU, completed operations
ARKANSAS	N/M
CALIFORNIA	N/M
COLORADO	owners protective liability
CONNECTICUT	contractual liability, railroad coverage, owners protective liability
DELAWARE	N/M
FLORIDA	N/M
GEORGIA	N/M
HAWAII	N/M
IDAHO	N/M
ILLINOIS	N/M
INDIANA	XCU, owners protective liability
KANSAS	premises-operations, contractual, broad form prop. damage, ind. cont.,pers. inj.,compl. opera
KENTUCKY	contractors protective liability
LOUISIANA	N/M
MARYLAND	N/M
MASSACHUSETTS	protective public liability
MICHIGAN	XCU, owners protective liability
MINNESOTA	N/M
MISSISSIPPI	N/M
MISSOURI	contractors protective liability
MONTANA	XCU, completed operations
NEBRASKA	contractual liability
NEW HAMPSHIRE	N/M
NEW JERSEY	XCU, broad form general liability, contractual lia., owners prot. lia., completed operations
NEW MEXICO	broad form comprehensive general liability, XCU, completed operations
NEW YORK	contractors protective liability, completed operations
NORTH CAROLINA	N/M
NORTH DAKOTA	N/M
OHIO	XCU, personal injury, completed operations
OKLAHOMA	contractors protective liability
PENNSYLVANIA	N/M
RHODE ISLAND	N/M
SOUTH CAROLINA	N/M
SOUTH DAKOTA	N/M
TENNESSEE	N/M
TEXAS	waiver of subrogation endorsement
UTAH	N/M
VERMONT	XCU, contractor's protective liability
WASHINGTON	N/M
WEST VIRGINIA	XCU, contractors protective liability
WISCONSIN	N/M
WYOMING	N/M

LOCAL AGENCIES	
CHICAGO	XCU, owners protective liability
CINCINNATI	premises-operations, contractual, broad form property damage, personal injury, XCU,comp ops
DALLAS	XCU, asbestos, owners protective liability
EL PASO	N/M
HONOLULU	N/M
LOS ANGELES	N/M
LOUISVILLE	XCU, premises-operations, contractual, B.F. prop dam., ind. contr., pers. inj., compl. ops
MILWAUKEE	XCU, premises-operations, blanket contractual coverage, completed operations
PHOENIX	contractual liability
SAN FRANCISCO	contractual lia., indep. contractors,XCU, pers. inj.,B.F. prop. damage, compl. operations
SEATTLE	premises-operations, blanket contractual, B.F. prop. dam., pers. inj., XCU, compl. operations
TAMPA	contractual liability, completed operations
TULSA	N/M

N/M = NOT MENTIONED

Question: Is workman's compensation insurance required?

STATE AGENCIES	YES	NO
ALABAMA	X	
ALASKA	X	
ARIZONA	X	
ARKANSAS		X
CALIFORNIA	X	
COLORADO	X	
CONNECTICUT	X	
DELAWARE		X
FLORIDA	X	
GEORGIA		X
HAWAII	X	
IDAHO	X	
ILLINOIS	X	
INDIANA		X
KANSAS	X	
KENTUCKY		X
LOUISIANA		X
MARYLAND		X
MASSACHUSETTS	X	
MICHIGAN	X	
MINNESOTA		X
MISSISSIPPI		X
MISSOURI	X	
MONTANA		X
NEBRASKA	X	
NEW HAMPSHIRE	X	
NEW JERSEY	X	
NEW MEXICO	X	
NEW YORK	X	
NORTH CAROLINA		X
NORTH DAKOTA		X
OHIO		X
OKLAHOMA	X	
PENNSYLVANIA	X	
RHODE ISLAND		X
SOUTH CAROLINA		X
SOUTH DAKOTA	X	
TENNESSEE		X
TEXAS	X	
UTAH	X	
VERMONT	X	
WASHINGTON	X	
WEST VIRGINIA		X
WISCONSIN		X
WYOMING		X
LOCAL AGENCIES		
CHICAGO	X	
CINCINNATI		X
DALLAS	X	
EL PASO	X	
HONOLULU	X	
LOS ANGELES	X	
LOUISVILLE	X	
MILWAUKEE	X	
PHOENIX	X	
SAN FRANCISCO	X	
SEATTLE		X
TAMPA	X	
TULSA	X	

Question: Is employer's liability insurance required?

STATE AGENCIES	YES	NO
ALABAMA		X
ALASKA	X	
ARIZONA	X	
ARKANSAS		X
CALIFORNIA		X
COLORADO		X
CONNECTICUT		X
DELAWARE		X
FLORIDA		X
GEORGIA		X
HAWAII		X
IDAHO		X
ILLINOIS		X
INDIANA		X
KANSAS	X	
KENTUCKY		X
LOUISIANA		X
MARYLAND		X
MASSACHUSETTS		X
MICHIGAN		X
MINNESOTA		X
MISSISSIPPI		X
MISSOURI	X	
MONTANA		X
NEBRASKA		X
NEW HAMPSHIRE		X
NEW JERSEY	X	
NEW MEXICO		X
NEW YORK		X
NORTH CAROLINA		X
NORTH DAKOTA		X
OHIO		X
OKLAHOMA	X	
PENNSYLVANIA		X
RHODE ISLAND		X
SOUTH CAROLINA		X
SOUTH DAKOTA		X
TENNESSEE		X
TEXAS		X
UTAH		X
VERMONT		X
WASHINGTON		X
WEST VIRGINIA		X
WISCONSIN		X
WYOMING		X
LOCAL AGENCIES		
CHICAGO	X	
CINCINNATI		X
DALLAS	X	
EL PASO	X	
HONOLULU		X
LOS ANGELES		X
LOUISVILLE	X	
MILWAUKEE		X
PHOENIX	X	
SAN FRANCISCO	X	
SEATTLE		X
TAMPA	X	
TULSA	X	

Question: Is automobile liability insurance required?

STATE AGENCIES	YES	NO	What limits?
ALABAMA	X		N/M
ALASKA	X		N/M
ARIZONA	X		$1 million each occurrence
ARKANSAS		X	
CALIFORNIA		X	
COLORADO	X		$500,000 combined (BI/PD) each accident
CONNECTICUT	X		BI $100k/person, $300k/occ;PD $50k/occ
DELAWARE		X	
FLORIDA		X	
GEORGIA		X	
HAWAII		X	
IDAHO	X		BI $250k/person, $500k/occ; PD $100k/occ
ILLINOIS		X	
INDIANA	X		BI $500k/pers, $500k/occ; PD $100k/occ
KANSAS	X		combined single limit of $1,000,000
KENTUCKY		X	
LOUISIANA		X	
MARYLAND		X	
MASSACHUSETTS		X	
MICHIGAN	X		BI $200k/pers, $500k/occ;PD $500k/occ
MINNESOTA		X	
MISSISSIPPI	X		BI $10k/person, $20k/occ; PD $5k/occ
MISSOURI		X	
MONTANA		X	
NEBRASKA		X	
NEW HAMPSHIRE		X	
NEW JERSEY	X		BI $500k/person, $1000k/occ;PD $100k/occ
NEW MEXICO	X		BI $500k/pers, $1000k/occ;PD $1000k/occ
NEW YORK		X	
NORTH CAROLINA		X	
NORTH DAKOTA		X	
OHIO	X		combined limits $1,000,000/occurrence
OKLAHOMA		X	
PENNSYLVANIA		X	
RHODE ISLAND		X	
SOUTH CAROLINA		X	
SOUTH DAKOTA		X	
TENNESSEE		X	
TEXAS	X		BI $100k/person, $300k/occ; PD $25k/occ
UTAH		X	
VERMONT		X	
WASHINGTON		X	
WEST VIRGINIA	X		BI $100k/person, $300k/occ; PD $100k/agg
WISCONSIN		X	
WYOMING		X	
LOCAL AGENCIES			
CHICAGO	X		not specified
CINCINNATI	X		not specified
DALLAS	X		combined limit (BI/PD) of $500k/occ
EL PASO	X		not specified
HONOLULU	X		BI $300k/person; PD $50k/occurrence
LOS ANGELES		X	
LOUISVILLE	X		combined limit (BI/PD) of $1,000,000
MILWAUKEE	X		BI $500k/person, $1,000k/occ;PD $500k/oc
PHOENIX	X		not specified
SAN FRANCISCO	X		not specified
SEATTLE	X		not specified
TAMPA	X		BI $500k/person,$1,000k/occ;PD $250k/occ
TULSA	X		BI $100k/person,$1,000k/occ;PD $100k/occ

BI means "Bodily Injury"
PD means "Property Damage"

Question: Is it necessary for an insurance certificate to be filed with the contracting agency?

STATE AGENCIES	YES	NO
ALABAMA	X	
ALASKA	X	
ARIZONA	X	
ARKANSAS		X
CALIFORNIA	X	
COLORADO	X	
CONNECTICUT	X	
DELAWARE		X
FLORIDA		X
GEORGIA		X
HAWAII		X
IDAHO	X	
ILLINOIS	X	
INDIANA	X	
KANSAS	X	
KENTUCKY		X
LOUISIANA		X
MARYLAND	X	
MASSACHUSETTS	X	
MICHIGAN	X	
MINNESOTA		X
MISSISSIPPI	X	
MISSOURI	X	
MONTANA	X	
NEBRASKA	X	
NEW HAMPSHIRE	X	
NEW JERSEY	X	
NEW MEXICO	X	
NEW YORK	X	
NORTH CAROLINA		X
NORTH DAKOTA		X
OHIO	X	
OKLAHOMA		X
PENNSYLVANIA	X	
RHODE ISLAND		X
SOUTH CAROLINA		X
SOUTH DAKOTA	X	
TENNESSEE		X
TEXAS	X	
UTAH	X	
VERMONT	X	
WASHINGTON	X	
WEST VIRGINIA	X	
WISCONSIN		X
WYOMING		X
LOCAL AGENCIES		
CHICAGO	X	
CINCINNATI	X	
DALLAS	X	
EL PASO	X	
HONOLULU	X	
LOS ANGELES	X	
LOUISVILLE	X	
MILWAUKEE	X	
PHOENIX	X	
SAN FRANCISCO	X	
SEATTLE	X	
TAMPA	X	
TULSA	X	

Question: Does the agency provide a special form for submitt of the insurance certificate?

STATE AGENCIES	YES	NO
ALABAMA	X	
ALASKA		X
ARIZONA	X	
ARKANSAS		X
CALIFORNIA	X	
COLORADO		X
CONNECTICUT		X
DELAWARE		X
FLORIDA		X
GEORGIA		X
HAWAII		X
IDAHO		X
ILLINOIS		X
INDIANA	X	
KANSAS		X
KENTUCKY		X
LOUISIANA		X
MARYLAND		X
MASSACHUSETTS		X
MICHIGAN		X
MINNESOTA		X
MISSISSIPPI		X
MISSOURI		X
MONTANA		X
NEBRASKA	X	
NEW HAMPSHIRE		X
NEW JERSEY		X
NEW MEXICO		X
NEW YORK		X
NORTH CAROLINA		X
NORTH DAKOTA		X
OHIO		X
OKLAHOMA		X
PENNSYLVANIA		X
RHODE ISLAND		X
SOUTH CAROLINA		X
SOUTH DAKOTA		X
TENNESSEE		X
TEXAS	X	
UTAH		X
VERMONT		X
WASHINGTON		X
WEST VIRGINIA		X
WISCONSIN		X
WYOMING		X
LOCAL AGENCIES		
CHICAGO		X
CINCINNATI		X
DALLAS		X
EL PASO		X
HONOLULU		X
LOS ANGELES		X
LOUISVILLE		X
MILWAUKEE		X
PHOENIX		X
SAN FRANCISCO	X	
SEATTLE		X
TAMPA		X
TULSA		X

Question: Must a provision be made in the policy that the owner (agency) be notified if the insurance policy is cancelled or lapses?

STATE AGENCIES	YES	NO
ALABAMA		X
ALASKA	X	
ARIZONA	X	
ARKANSAS		X
CALIFORNIA		X
COLORADO	X	
CONNECTICUT	X	
DELAWARE		X
FLORIDA		X
GEORGIA		X
HAWAII		X
IDAHO	X	
ILLINOIS	X	
INDIANA	X	
KANSAS		X
KENTUCKY		X
LOUISIANA		X
MARYLAND		X
MASSACHUSETTS	X	
MICHIGAN	X	
MINNESOTA		X
MISSISSIPPI		X
MISSOURI		X
MONTANA	X	
NEBRASKA		X
NEW HAMPSHIRE		X
NEW JERSEY	X	
NEW MEXICO	X	
NEW YORK	X	
NORTH CAROLINA		X
NORTH DAKOTA		X
OHIO	X	
OKLAHOMA		X
PENNSYLVANIA		X
RHODE ISLAND		X
SOUTH CAROLINA		X
SOUTH DAKOTA		X
TENNESSEE		X
TEXAS		X
UTAH	X	
VERMONT	X	
WASHINGTON	X	
WEST VIRGINIA		X
WISCONSIN		X
WYOMING		X
LOCAL AGENCIES		
CHICAGO	X	
CINCINNATI		X
DALLAS	X	
EL PASO	X	
HONOLULU	X	
LOS ANGELES	X	
LOUISVILLE	X	
MILWAUKEE	X	
PHOENIX		X
SAN FRANCISCO	X	
SEATTLE	X	
TAMPA	X	
TULSA	X	

Question: Can the agency refuse to make progress payments if the policy is cancelled or lapses?

STATE AGENCIES	YES	NO
ALABAMA		X
ALASKA	X	
ARIZONA	X	
ARKANSAS		X
CALIFORNIA	X	
COLORADO		X
CONNECTICUT		X
DELAWARE		X
FLORIDA		X
GEORGIA		X
HAWAII		X
IDAHO		X
ILLINOIS		X
INDIANA	X	
KANSAS		X
KENTUCKY		X
LOUISIANA		X
MARYLAND		X
MASSACHUSETTS		X
MICHIGAN		X
MINNESOTA		X
MISSISSIPPI		X
MISSOURI		X
MONTANA		X
NEBRASKA		X
NEW HAMPSHIRE		X
NEW JERSEY	X	
NEW MEXICO		X
NEW YORK		X
NORTH CAROLINA		X
NORTH DAKOTA		X
OHIO	X	
OKLAHOMA		X
PENNSYLVANIA		X
RHODE ISLAND		X
SOUTH CAROLINA		X
SOUTH DAKOTA		X
TENNESSEE		X
TEXAS		X
UTAH		X
VERMONT		X
WASHINGTON	X	
WEST VIRGINIA		X
WISCONSIN		X
WYOMING		X
LOCAL AGENCIES		
CHICAGO		X
CINCINNATI		X
DALLAS		X
EL PASO		X
HONOLULU		X
LOS ANGELES		X
LOUISVILLE		X
MILWAUKEE		X
PHOENIX		X
SAN FRANCISCO	X	
SEATTLE		X
TAMPA		X
TULSA		X

Question: Is an Additional Insured Endorsement required?

STATE AGENCIES	YES	NO
ALABAMA		X
ALASKA	X	
ARIZONA	X	
ARKANSAS		X
CALIFORNIA	X	
COLORADO	X	
CONNECTICUT		X
DELAWARE		X
FLORIDA		X
GEORGIA		X
HAWAII		X
IDAHO		X
ILLINOIS	X	
INDIANA		X
KANSAS		X
KENTUCKY		X
LOUISIANA		X
MARYLAND		X
MASSACHUSETTS		X
MICHIGAN		X
MINNESOTA		X
MISSISSIPPI		X
MISSOURI		X
MONTANA		X
NEBRASKA		X
NEW HAMPSHIRE		X
NEW JERSEY		X
NEW MEXICO	X	
NEW YORK		X
NORTH CAROLINA		X
NORTH DAKOTA		X
OHIO	X	
OKLAHOMA		X
PENNSYLVANIA		X
RHODE ISLAND		X
SOUTH CAROLINA		X
SOUTH DAKOTA		X
TENNESSEE		X
TEXAS	X	
UTAH		X
VERMONT		X
WASHINGTON	X	
WEST VIRGINIA		X
WISCONSIN		X
WYOMING		X
LOCAL AGENCIES		
CHICAGO		X
CINCINNATI	X	
DALLAS	X	
EL PASO		X
HONOLULU	X	
LOS ANGELES	X	
LOUISVILLE	X	
MILWAUKEE	X	
PHOENIX		X
SAN FRANCISCO		X
SEATTLE	X	
TAMPA		X
TULSA		X

Question: Is an Indemnification Clause required?

STATE AGENCIES	YES	NO
ALABAMA	X	
ALASKA	X	
ARIZONA	X	
ARKANSAS	X	
CALIFORNIA	X	
COLORADO	X	
CONNECTICUT	X	
DELAWARE	X	
FLORIDA	X	
GEORGIA	X	
HAWAII	X	
IDAHO	X	
ILLINOIS	X	
INDIANA	X	
KANSAS	X	
KENTUCKY	X	
LOUISIANA	X	
MARYLAND	X	
MASSACHUSETTS	X	
MICHIGAN	X	
MINNESOTA	X	
MISSISSIPPI	X	
MISSOURI	X	
MONTANA	X	
NEBRASKA	X	
NEW HAMPSHIRE	X	
NEW JERSEY	X	
NEW MEXICO	X	
NEW YORK	X	
NORTH CAROLINA	X	
NORTH DAKOTA	X	
OHIO	X	
OKLAHOMA	X	
PENNSYLVANIA	X	
RHODE ISLAND	X	
SOUTH CAROLINA	X	
SOUTH DAKOTA	X	
TENNESSEE	X	
TEXAS	X	
UTAH	X	
VERMONT	X	
WASHINGTON	X	
WEST VIRGINIA	X	
WISCONSIN	X	
WYOMING	X	
LOCAL AGENCIES		
CHICAGO	X	
CINCINNATI	X	
DALLAS		X
EL PASO		X
HONOLULU		X
LOS ANGELES	X	
LOUISVILLE	X	
MILWAUKEE	X	
PHOENIX	X	
SAN FRANCISCO	X	
SEATTLE	X	
TAMPA		X
TULSA		X

Question: Any other insurance required?

STATE AGENCIES	YES	NO	TYPE
ALABAMA		X	
ALASKA		X	
ARIZONA		X	
ARKANSAS		X	
CALIFORNIA		X	
COLORADO		X	
CONNECTICUT		X	
DELAWARE		X	
FLORIDA	X		Railroad, Utilities liability
GEORGIA		X	
HAWAII		X	
IDAHO		X	
ILLINOIS		X	
INDIANA	X		Railroad coverage
KANSAS		X	
KENTUCKY	X		Railroad coverage
LOUISIANA	X		Railroad coverage
MARYLAND		X	
MASSACHUSETTS	X		Railroad Protective Liability
MICHIGAN		X	
MINNESOTA	X		Railroad coverage
MISSISSIPPI	X		Railroad coverage
MISSOURI	X		Railroad coverage
MONTANA	X		Railroad Protective Liability
NEBRASKA		X	
NEW HAMPSHIRE		X	
NEW JERSEY		X	
NEW MEXICO		X	
NEW YORK		X	
NORTH CAROLINA		X	
NORTH DAKOTA	X		Railroad coverage
OHIO		X	
OKLAHOMA	X		Railroad Liability
PENNSYLVANIA		X	
RHODE ISLAND		X	
SOUTH CAROLINA		X	
SOUTH DAKOTA		X	
TENNESSEE		X	
TEXAS		X	
UTAH		X	
VERMONT	X		Railroad coverage
WASHINGTON		X	
WEST VIRGINIA		X	
WISCONSIN		X	
WYOMING		X	
LOCAL AGENCIES			
CHICAGO	X		Builders' Risk
CINCINNATI	X		Builders' Risk, Railroad Protective Liab
DALLAS	X		Builders' Risk
EL PASO	X		Builders' Risk
HONOLULU	X		Builders' Risk
LOS ANGELES		X	
LOUISVILLE	X		Builders' Risk
MILWAUKEE		X	
PHOENIX		X	
SAN FRANCISCO		X	
SEATTLE	X		Employer's Contingent Liability
TAMPA	X		Fire and Lightning, Vandalism and malici
TULSA		X	

APPENDIX B

SUMMARY SHEETS FOR INSURANCE INTERVIEWS

Question: What types of insurance do you offer to the construction industry?

INSURANCE COMPANY 1	All standard policies
INSURANCE COMPANY 2	All standard policies
INSURANCE COMPANY 3	All standard policies
INSURANCE COMPANY 4	All standard policies
INSURANCE COMPANY 5	All standard policies
INSURANCE COMPANY 6	All standard policies

Question: If 100 construction contractors requested insurance from your insurance company, how many would you deny coverage to?

INSURANCE COMPANY 1	30 percent
INSURANCE COMPANY 2	less than 25 percent
INSURANCE COMPANY 3	5-10 percent
INSURANCE COMPANY 4	25 percent
INSURANCE COMPANY 5	65 percent
INSURANCE COMPANY 6	67 percent

Question:		Do you require subcontractors who work for a general contractor insured by your company to carry the same insurance as the general contractor?
INSURANCE COMPANY	1	No, but they do request it
INSURANCE COMPANY	2	yes
INSURANCE COMPANY	3	yes
INSURANCE COMPANY	4	yes
INSURANCE COMPANY	5	yes
INSURANCE COMPANY	6	No, but they do require a certain minimum limit

Question: Are there any specific policies that you are reluctant to give?

INSURANCE COMPANY 1	Any pollution coverage; worker's compensation
INSURANCE COMPANY 2	No
INSURANCE COMPANY 3	Any pollution coverage
INSURANCE COMPANY 4	Any pollution coverage; builder's risk on multi-story
INSURANCE COMPANY 5	Any pollution coverage; worker's compensation
INSURANCE COMPANY 6	Owner's protective liability (for WSDOT)

Question: Do you offer dividends to contractors? On what basis?

INSURANCE COMPANY	1	Yes, on the basis of loss ratio for the entire group classification
INSURANCE COMPANY	2	Yes, on the basis of loss ratio for the entire group classification
INSURANCE COMPANY	3	No
INSURANCE COMPANY	4	No
INSURANCE COMPANY	5	No
INSURANCE COMPANY	6	No

Question:	Since the liability crisis of the mid-80's, do contractors remain with your company for all coverages or is shopping around for different coverages more common?

INSURANCE COMPANY 1	Contractors have always shopped around
INSURANCE COMPANY 2	Contractors have always shopped around
INSURANCE COMPANY 3	Contractors have always shopped around
INSURANCE COMPANY 4	Contractors have always shopped around
INSURANCE COMPANY 5	Contractors have always shopped around
INSURANCE COMPANY 6	Contractors have always shopped around

Question: Do contractors ask you to review insurance requirements in the contract specifications?

INSURANCE COMPANY 1	Occasionally
INSURANCE COMPANY 2	Occasionally
INSURANCE COMPANY 3	Occasionally
INSURANCE COMPANY 4	Occasionally
INSURANCE COMPANY 5	Occasionally
INSURANCE COMPANY 6	Occasionally

Question:	Are some types of insurance coverages not adequately included in construction contracts?

INSURANCE COMPANY 1	Most are adequate
INSURANCE COMPANY 2	Most are adequate
INSURANCE COMPANY 3	Most are adequate
INSURANCE COMPANY 4	Most are adequate
INSURANCE COMPANY 5	Yes, quality of work insurance
INSURANCE COMPANY 6	Most are adequate

Question: When one of your clients' policies comes due for renewal, what is the importance (on a scale of 1 to 10) of each of the following factors on assigning risk, thus premium rates:

a) contractor's construction experience
b) dollar volume of work the past year
c) net worth of company
d) profitability during the past year
e) claims history
f) principal type of construction

	(a)	(b)	(c)	(d)	(e)	(f)
INSURANCE COMPANY 1	7	5	9	9	10	8
INSURANCE COMPANY 2	10	7	8	8	10	10
INSURANCE COMPANY 3	10	6	8	8	10	8
INSURANCE COMPANY 4	6	4	5	5	8	9
INSURANCE COMPANY 5	5	9	4	4	8	10
INSURANCE COMPANY 6	7	6	9	9	9	7

Question: If an experienced contractor that has never bought insurance from your company comes to you desiring coverage, what is the importance (on a scale of 1 to 10) of each of the following factors on assigning risk, thus premium rates:

a) contractor's construction experience
b) dollar volume of work the past year
c) net worth of company
d) profitability during the past year
e) claims history
f) principal type of construction

	(a)	(b)	(c)	(d)	(e)	(f)
INSURANCE COMPANY 1	8	8	9	9	10	10
INSURANCE COMPANY 2	10	7	8	8	10	10
INSURANCE COMPANY 3	10	6	8	8	10	8
INSURANCE COMPANY 4	9	4	6	6	9	9
INSURANCE COMPANY 5	5	9	4	4	10	10
INSURANCE COMPANY 6	9	6	7	7	9	8

Question: If a construction company is formed and comes to you looking to purchase insurance, what is the importance (on a scale of 1 to 10) of each of the following factors on assigning risk, thus premium rates:

a) construction experience of the principle of the firm
b) expected dollar volume of work
c) debt burden of company
d) principal type of construction
e) business outlook for that particular type of construction

	(a)	(b)	(c)	(d)	(e)
INSURANCE COMPANY 1	8	8	10	10	9
INSURANCE COMPANY 2	10	8	10	10	10
INSURANCE COMPANY 3	10	10	10	10	10
INSURANCE COMPANY 4	9	5	7	9	7
INSURANCE COMPANY 5	10	8	6	10	4
INSURANCE COMPANY 6	9	7	9	8	8

Question:	Consider a $1 million building project, scheduled to take 7 months to complete. What general liability limits would you recommend, and how much would the premiums cost? (assume a reputable, experienced general contractor).

INSURANCE COMPANY 1	$1 million limits, $15-20k annual premium
INSURANCE COMPANY 2	$1 million limits, $10k annual premium
INSURANCE COMPANY 3	$1 million limits each occurrence, $2 million aggregate, $15k annual premium
INSURANCE COMPANY 4	$1 million limits, $30k annual premium
INSURANCE COMPANY 5	$1 million limits, $7.5k annual premium
INSURANCE COMPANY 6	$1 million limits, $3k annual premium

Question: What umbrella coverage would be appropriate for this size project?

INSURANCE COMPANY 1	$1-5 million
INSURANCE COMPANY 2	$5-10 million
INSURANCE COMPANY 3	At least $1 million
INSURANCE COMPANY 4	$5 million
INSURANCE COMPANY 5	$2 million
INSURANCE COMPANY 6	$2-5 million

Question:		Now consider a $10 million building project, scheduled to take 24 months to complete. How would the liability limits change, and how much more would the premiums be? (same contractor).
INSURANCE COMPANY	1	No change
INSURANCE COMPANY	2	No change
INSURANCE COMPANY	3	No change
INSURANCE COMPANY	4	No change
INSURANCE COMPANY	5	Limits would not change, but premiums would increase (based on payroll
INSURANCE COMPANY	6	Limits would not change, but premiums would increase (based on payroll

Question: What umbrella coverage would be appropriate for this size project?

INSURANCE COMPANY 1	$5 million
INSURANCE COMPANY 2	$10 million
INSURANCE COMPANY 3	Net worth of Contractor
INSURANCE COMPANY 4	$10 million
INSURANCE COMPANY 5	$5 million
INSURANCE COMPANY 6	$2-5 million

Question:	For the two projects identified in (1) and (2) above, how would the premiums differ from a claims-made policy versus an occurrences form?

INSURANCE COMPANY 1	Claims-made would be 10-15% lower initially
INSURANCE COMPANY 2	Claims-made would be 5-10% lower initially
INSURANCE COMPANY 3	Claims-made would be 20% lower initially
INSURANCE COMPANY 4	Only write occurrences form
INSURANCE COMPANY 5	Claims-made would be 30% lower initially
INSURANCE COMPANY 6	Claims-made would be 10% lower initially

Question:		What are the methods used by contractors to lower liability premiums?
INSURANCE COMPANY	1	Lower loss experience, deductibles
INSURANCE COMPANY	2	Active safety program, use materials to specifications
INSURANCE COMPANY	3	Active safety program, good supervisors
INSURANCE COMPANY	4	Active safety program, control over subcontractors
INSURANCE COMPANY	5	Lower loss experience, active safety program, avoid certain types of work
INSURANCE COMPANY	6	Lower loss experience, active safety program

Question:	Do you use experience modification ratings for setting premiums on contractor's liability policies?

INSURANCE COMPANY 1	Yes
INSURANCE COMPANY 2	Yes
INSURANCE COMPANY 3	Yes
INSURANCE COMPANY 4	Yes
INSURANCE COMPANY 5	Yes
INSURANCE COMPANY 6	Yes

Question: For umbrella coverage, what is the lower and upper limits on what your company will offer?

INSURANCE COMPANY 1	$1 million to $20 million
INSURANCE COMPANY 2	$1 million to $20 million
INSURANCE COMPANY 3	$1 million to $30 million
INSURANCE COMPANY 4	$1 million to $10 million
INSURANCE COMPANY 5	$1 million to $20 million
INSURANCE COMPANY 6	$1 million to $10 million

Question: Will you accept another company's basic liability policy as the deductible amount on an umbrella policy you provide?

INSURANCE COMPANY 1	No
INSURANCE COMPANY 2	No
INSURANCE COMPANY 3	Yes
INSURANCE COMPANY 4	No
INSURANCE COMPANY 5	No
INSURANCE COMPANY 6	No

Question:		If there is a hold-harmless clause in the construction contract between the contractor and the owner, does the basic liability policy cover it?

INSURANCE COMPANY	1	Yes
INSURANCE COMPANY	2	Yes
INSURANCE COMPANY	3	Yes
INSURANCE COMPANY	4	Yes
INSURANCE COMPANY	5	Yes
INSURANCE COMPANY	6	Yes

Question: If not, what type of policy needs to be purchased to cover the indemnification clause?

INSURANCE COMPANY	1	N/A
INSURANCE COMPANY	2	N/A
INSURANCE COMPANY	3	N/A
INSURANCE COMPANY	4	N/A
INSURANCE COMPANY	5	N/A
INSURANCE COMPANY	6	N/A

Question:	Consider the $1 million project again. What Builder's risk insurance limits would the typical contractor ask for, and what would the premiums cost?

INSURANCE COMPANY 1	$1 million limits, $1.5k-2k annual premium
INSURANCE COMPANY 2	$1 million limits, $0.3k-2.5k annual premium
INSURANCE COMPANY 3	$1 million limits, $1.5k annual premium
INSURANCE COMPANY 4	$1 million limits, had no idea (did not specialize in property ins.)
INSURANCE COMPANY 5	$1 million limits, $1k-4k annual premium
INSURANCE COMPANY 6	$1 million limits, $5k annual premium

Question:		Again, now consider the $10 million proect. What changes to limits and premiums would occur?
INSURANCE COMPANY	1	$10 million limits, $15k-20k premium for the policy period
INSURANCE COMPANY	2	$10 million limits, $3k-25k annual premium
INSURANCE COMPANY	3	$10 million limits, $10k-11k premium for the policy period
INSURANCE COMPANY	4	$10 million limits, had no idea on premiums (not specialty)
INSURANCE COMPANY	5	$10 million limits, $10k-40k premium for policy period
INSURANCE COMPANY	6	$2 million first year ($10k premium), $10 million second year ($25k premium)

Question: In general, do you feel that contractors are purchasing enough builders risk coverage to adequately cover losses?

INSURANCE COMPANY 1	Yes
INSURANCE COMPANY 2	Yes
INSURANCE COMPANY 3	Yes
INSURANCE COMPANY 4	No
INSURANCE COMPANY 5	No
INSURANCE COMPANY 6	Yes

Question: What are the common ways that contractors lower eir Builders Risk premiums?

INSURANCE COMPANY	1	High deductibles, build with fire resistant materials
INSURANCE COMPANY	2	High deductibles, safe building practices, theft proofing
INSURANCE COMPANY	3	High deductibles, safe building practices, good experience, on-site security
INSURANCE COMPANY	4	High deductibles, security of premises
INSURANCE COMPANY	5	High deductibles, loss prevention, safety measures
INSURANCE COMPANY	6	Good experience, safety practices

Question: What are typical exclusions in Builders Risk policies?

INSURANCE COMPANY 1	Earth movement, floods, nuclear hazard, war/military action, building ord., gov. action
INSURANCE COMPANY 2	Earthquake, nuclear radiation or war, unexplained loss
INSURANCE COMPANY 3	Earthquake, nuclear incident, flood war, insects, unexplained loss, faulty workmanship
INSURANCE COMPANY 4	Did not specialize in property insurance
INSURANCE COMPANY 5	Earthquake, faulty design
INSURANCE COMPANY 6	Earthquake; floods; care, custody, and control

Question: Do you use experience modification ratings for setting premiums on contractors Builders Risk policies?

INSURANCE COMPANY 1	No
INSURANCE COMPANY 2	Yes
INSURANCE COMPANY 3	No
INSURANCE COMPANY 4	No
INSURANCE COMPANY 5	No
INSURANCE COMPANY 6	No

Question: Have you ever written a wrap-up insurance policy?

INSURANCE COMPANY 1	No
INSURANCE COMPANY 2	No
INSURANCE COMPANY 3	Yes
INSURANCE COMPANY 4	No
INSURANCE COMPANY 5	No
INSURANCE COMPANY 6	No

Question: How would the limits and premiums be on the $1 million and $10 million dollar building if the owner purchased wrap-up insurance?

INSURANCE COMPANY 1	N/A
INSURANCE COMPANY 2	N/A
INSURANCE COMPANY 3	Written on retrospective basis--rates written after the project based
INSURANCE COMPANY 4	N/A
INSURANCE COMPANY 5	N/A
INSURANCE COMPANY 6	N/A

Question:	What factors come into play when setting premium rates for comprehensive automobile insurance for jobsite vehicles?

INSURANCE COMPANY 1	Loss experience, maintenance of vehicles, experience of drivers, safety program
INSURANCE COMPANY 2	Equipment size, licensing of drivers, training
INSURANCE COMPANY 3	Driving records, employee hiring practices, vehicle size, safety, maintenance program, distance traveled
INSURANCE COMPANY 4	Vehicle size and age, garaging location, radius of operations, value of vehicles, loss experience, maintenance program
INSURANCE COMPANY 5	Vehicle size and location, usage, experience of company, training of drivers
INSURANCE COMPANY 6	Geographic location

Question: What factors affect equipment insurance rates (damage only)?

INSURANCE COMPANY 1	Terrain operated on, maintenance, driver experience, loss experience,
INSURANCE COMPANY 2	Safety program, licensed operators, location of use
INSURANCE COMPANY 3	Maintenance, experience of operators, security, traffic management if
INSURANCE COMPANY 4	Type of equipment, vehicle age and maintenance, theft prevention
INSURANCE COMPANY 5	Type of equipment, value of equipment, how and where used
INSURANCE COMPANY 6	Type of equipment, theft prevention, operators experience

Question: Does your company provide keyman insurance policies?

INSURANCE COMPANY 1	Yes
INSURANCE COMPANY 2	No
INSURANCE COMPANY 3	No
INSURANCE COMPANY 4	No
INSURANCE COMPANY 5	Yes
INSURANCE COMPANY 6	Yes

Question:	Approximately what percentage of companies will purchase this type of policy?

INSURANCE COMPANY 1	80 percent
INSURANCE COMPANY 2	N/A
INSURANCE COMPANY 3	N/A
INSURANCE COMPANY 4	N/A
INSURANCE COMPANY 5	For the "larger" companies, 100%
INSURANCE COMPANY 6	No idea

Question: What limits will you provide?

INSURANCE COMPANY 1	Do not know, life insurance division provides this coverage
INSURANCE COMPANY 2	N/A
INSURANCE COMPANY 3	N/A
INSURANCE COMPANY 4	N/A
INSURANCE COMPANY 5	Do not know, life insurance division provides this coverage
INSURANCE COMPANY 6	Do not know, life insurance division provides this coverage