COZEN AND O'CONNOR TECHNICAL HANDBOOK:

INVESTIGATING AND PROSECUTING BUILDING COLLAPSE AND CONSTRUCTION FAILURE SUBROGATION CLAIMS

I. <u>INTRODUCTION</u>

Building collapse and construction failure claims represent a significant opportunity for enhancing subrogation revenues. The most common forms of collapse include wind uplift and accumulations of rain or snow. Proper investigation of such incidents, entailing documenting the cause and preserving appropriate evidence, is critical. In addition, it is important to understand the various "players" involved in the construction of the building so that these parties can be notified and given an opportunity to investigate the incident.

Building roof failures generally occur as a result of severe or prolonged storm events. Such storm events include hurricanes, tornadoes, thunderstorms, heavy snowfalls, unusually wet snowstorms, and extended rainstorms, particularly onto roofs that are snow-covered. With the exception of a direct tornado funnel impact, most buildings should survive these storm events. Remember that our national and local media sensationalize storm coverage to the point where we seem to have the "storm-of-the century" every several years. When actual storm conditions are recreated, failures frequently occur at load levels that are within the "factor-of-safety" of structural building codes and design specifications.

The common national model building codes, Uniform Building Code (UBC), Standard Building Code (SBC), and Building Officials Code Administrators (BOCA) all provide for similar environmental loads.¹ These loads are based on a 2% probability of occurrence in a

^{1.} Recently, the building codes have unified under the International Building Code. For the near future, many failures will involve the older codes.

given year (a so-called 1 in 50 chance, incorrectly referred to as a 50-year storm). The codes are all based on the American Society of Civil Engineers Design Standard Number Seven, which functions as the underlying standard for most loads.².

Roof failures may occur due to: design errors or construction flaws; structural modifications to the building; modifications of the load factors; changes to the local site conditions; or degradation of materials. In other words, most failures are avoidable with proper attention and professional guidance.

II. IMPORTANCE OF EARLY INVESTIGATION AND NOTICE

Early investigation of all property losses for subrogation potential is always important. However, it is especially significant in roof collapse and building failure claims for the following reasons:

1. <u>The Loss Site Cannot be Preserved</u>

Certain loss sites, such as those involving small fires or water damage incidents, can be preserved for long periods of time. This is not true of collapse cases. When dealing with large collapses of industrial buildings, the debris removal and demolition followed by reconstruction typically must be undertaken almost immediately for a variety of economic, environmental and public safety reasons. The interior of the building often is exposed to the elements and repairs must be performed promptly to mitigate damages. Therefore, in virtually any collapse case, time is of the essence for purposes of conducting an engineering investigation.

2. <u>Preservation of Evidence is Difficult</u>

In most subrogation cases, smaller, discrete pieces of evidence which document and establish the cause of the loss easily can be preserved. For example, a coffee maker which caused a fire can be removed from the site and the site can be repaired once appropriate photographs showing burn patterns are taken. The same is not true with collapse cases. Often, the entire roof may collapse, and preservation of the entire roof is impossible. Even if only a portion of the roof collapses, preserving those portions

^{2.} Earthquakes are excluded from this discussion since they involve an entirely unique type of loading using a different design approach.

which collapsed may be insufficient because that portion of the roof is merely an integrated part of the whole, and other building components or roofing members may be responsible for its failure. Therefore, a thorough investigation must be performed on site to establish and document the cause of the loss and then steps must be taken to promptly preserve appropriate evidence.

3. <u>Prompt Notice to All Potentially Responsible Parties</u>

Evidentiary issues mandate a prompt and thorough investigation by your company. These factors also dictate prompt notice to all potentially responsible parties to avoid "spoliation" claims. As noted, it is necessary to promptly examine the collapse site to document the cause of the loss. Therefore, even if the actual cause of the collapse is documented and all evidence is properly preserved, a defendant in a subrogation claim may contend that it was not given the same opportunity to document alternative causes. Therefore, it is important that prompt notice of the collapse and potential subrogation claim be given to all parties involved in the design or construction of the building. This notice should be sent by both facsimile and certified mail. You should not wait until the investigation has been completed before you place those potentially responsible parties on notice. Notice should state that there is the potential for claims to be asserted against that party, and that an opportunity will be given to examine the site so long as that examination is conducted promptly. Potential defendants also should be notified that if they would like any items preserved, your company will do so at their expense, and that in the absence of such a request, only those artifacts that your investigation determines are important will be preserved. You also should request the responsible parties to provide your company with copies of all contracts. specifications and construction drawings pertaining to the building in exchange for your allowing the site inspection, so that your company may conduct a complete and thorough investigation.

4. <u>Preservation of Meteorological Evidence.</u>

It is very important to preserve available meteorological evidence regarding depths and weights of snow and water. Data regarding snow accumulations and rainfall can be obtained later from meteorological companies or the National Weather Service. However, precipitation amounts and depths can vary greatly from location to location within a given building or building complex. Therefore, everything possible should be done to document actual conditions at the site. Snow depth measurements, including volumetric and weight recordings, should be taken. Extensive photographic documentation should be made with reference points to depict snow depths. If possible, a cubic foot of snow should be removed, placed in a plastic bag and weighed, so that the weight as well as the depth of snow can be established. Again, if possible, a "core sample" of the entire depth of the snow should be taken. Engineers and Hydrologists have tubular core sampling devices that measure the "shift" of snow preventing the loss of free water that may be present in the lower portions of accumulated snow. The core samples also will obtain and preserve the ice layers at the bottom of a snow pile. In general, the core sample method is more accurate and therefore preferred. Obviously, this must be done immediately after the loss so that accurate precipitation depths and weights can be established and recorded.

III. <u>YOUR INVESTIGATION</u>

1. Experts

It is extremely important to retain qualified experts to immediately examine the site of the collapse. Given the time constraints for conducting the investigation it is easier and very tempting to retain a "generalist" to examine the scene. Avoid this temptation. You should retain someone with expertise in the type of building involved. If it is a pre-fabricated and pre-engineered metal building, an expert with experience in that mode of construction should be retained. If the building incorporated conventional construction techniques, using wooden trusses and support members, a specialist in that field should be retained. If you retain a "generalist", you most likely will have to hire a "specialist" later on anyway, but that specialist will be handicapped if he or she is not able to examine the scene of the collapse. It is better to hire the specialist while the loss site is still intact.

2. <u>Construction Documents</u>

It often will be difficult for your expert to complete the investigation unless the construction documents and plans are made available. The insured may not have all of these documents, particularly shop drawings and purchase orders. If that is the case, your notice letter to the potentially responsible parties should request that they produce these materials. If they refuse, you should confirm that refusal in writing. That may prove to be adverse to them in any subsequent lawsuit, and may justify a miscalculation on the part of your expert, or a failure to preserve certain evidence, if these omissions were indeed caused by the defendant's refusal to provide the construction documents.

3. <u>Preservation of Evidence</u>

Obviously, the quantity of evidence to be preserved from the site is a judgment call on the part of your expert. In smaller value claims, preserving large portions of the roofing system may not be economically feasible. However, in any large loss, arrangements should be made to preserve and store all building components which establish the cause of the collapse. Field notes should be taken by your consultants showing the precise location of each artifact preserved so that they can be identified later. Extensive photographs should be taken depicting each member in place before it is removed. All removed members should be labeled with spray paint to ensure future identification. Potentially responsible parties should be given an opportunity to identify items of evidence to be preserved at their expense. Arrangements should be made with a suitable storage facility to preserve evidence under secure conditions during the pendency of any investigation and subsequent litigation.

4. <u>Pre-Collapse Photographs</u>

Often it is difficult to determine specific construction details after a collapse has occurred. Pre-collapse photographs or photographs taken during construction therefore should be requested of your insured and the prospective defendants.

5. <u>Building Officials</u>

You should contact the local or state building officials' office to obtain information from any file they may have regarding the building including permits, inspections reports and photographs.

IV. <u>POTENTIALLY RESPONSIBLE PARTIES</u>

There are a variety of potentially responsible parties who should be notified of the

incident and afforded an opportunity to conduct an investigation:

1. <u>Architect</u>

The architect prepares the overall building drawings as well as plans for specific systems, which may detail the types of materials and methods of construction to be used on the project.

2. <u>Engineers</u>

Engineers of different disciplines typically are retained to determine the specific sizes, qualities, strengths, and capacities of discrete building systems. Examples include structural, civil, geotechnical, mechanical, fire protection and electrical engineers.

3. <u>General Contractor</u>

The general contractor is responsible for coordinating the overall erection of the building, including integrating the work of the architect, engineers, building component manufacturers and subcontractors. Often, even if errors are committed by one or more of the other parties, the general contractor is nonetheless responsible under its contract with the owner to construct a storm worthy building. The general contractor is responsible for detecting and correcting the mistakes of others under its direct or indirect control or supervision.

4. <u>Manufacturers</u>

Traditional buildings constructed with conventional components are increasingly rare in an industrial context. More often contemporary commercial structures incorporate mass manufactured components, such as pre-manufactured steel girders (bar joists) or wooden truss (press-plate) systems. Also, pre-engineered metal buildings are very common. In building collapse cases, these manufacturers often are responsible for providing defective components, failing to properly design or manufacturer materials in accordance with expected roof loads, or otherwise violating industry standards or design specifications.

5. <u>Erection Subcontractors</u>

The subcontractors responsible for the actual erection/construction of the building may fail to build it as specified or designed, and therefore may be responsible for any resulting collapse. Examples include missing bolts and deficient welds which may cause failures at connection points.

6. <u>Mechanical Contractors/Engineers</u>

Building collapses may be caused by loads being placed on the structure in excess of those loads contemplated by the building design. This may involve dead or mechanical loads like HVAC systems, sprinkler systems, and roofing systems, or live loads including rain, snow and even personnel. If the collapse occurs in an area where HVAC systems or other mechanical "point loads" are installed, the mechanical contractor/engineer should be placed on notice of the collapse and given an opportunity to investigate the collapse.

7. <u>Owners</u>

Owners (other than your insured) may be responsible for causing or contributing to the collapse if they have modified and thereby weakened the structural integrity of their building, either through their own personnel or independent contractors.

V. <u>LEGAL THEORIES</u>

A broad range of legal theories of liability may be applicable against the potentially

responsible parties:

1. <u>Breach of Contract</u>

The most obvious claim against the potentially responsible parties is for breach of contract. If the contractor fails to design, erect or otherwise supply the building that was requested and specified, the design professionals and construction contractor may be liable for breach of contract.

2. <u>Negligence</u>

If the responsible parties fail to design a building that meets applicable standards, fail to properly calculate roof loads or commit errors in constructing the building,

negligence claims may be brought against these potentially liable parties, with the enhanced measure of damages that accompanies tort-based remedies.

3. <u>Breach of Warranties</u>

There are generally three types of warranties which are issued in construction claims: express warranties that the building will be constructed according to certain standards; statutory warranties (such as those contained in the U.C.C.) that the building and/or its components are of merchantable quality and fit for their particular purpose; and common law warranties that the building will be constructed in a workmanlike manner and will be "habitable."

4. <u>Strict Products Liability</u>

Case law in certain jurisdictions has established that a building is a "product." If there are any defects in the building, the supplier (typically the general contractor and/or the manufacturer) can be held strictly liable for defects in the building, regardless of whether that supplier is at "fault." These claims are particularly applicable when the collapse involves a pre- engineered building, or when the building incorporates pre-engineered components, such as truss girders, columns or purlins. An additional and very significant benefit is that these claims generally are not controlled by statutes of repose which otherwise might bar a claim founded in negligent design or construction.

VI. <u>BARS TO RECOVERY</u>

The evaluation of subrogation claims arising from roof collapses entails close scrutiny of

potential bars to recovery:

1. <u>Contractual Limitations</u>

The construction contract may contain waivers of subrogation or other limitations or exculpatory provisions. This is typical if contact forms established by the American Institute of Architects (AIA) are used. If the contract documents contain such clauses, it is essential that they be analyzed by qualified counsel. Often, these provisions may be inapplicable to the cause of the failure, or may only bar certain categories of damage, but not others. It is premature to discontinue the investigation simply because waivers of subrogation, limitations or exculpatory clauses are contained in the contract documents.

2. <u>Statutes of Repose</u>

Most states have statutes of repose which preclude claims based upon construction defects against certain statutorily protected classes or professions after a specified period of time has expired since the date of substantial completion of construction or initial occupancy. It is critically important that qualified subrogation counsel analyze the applicable statute of repose promptly after a loss occurs. It is conceivable that the statute of repose could expire <u>days</u> after the incident occurs, and therefore suit must be commenced immediately or the claim will be barred. However, do not forego subrogation evaluation simply because the statutory period has passed. There are exceptions to statutes of repose, particularly when pre-manufactured buildings or components are involved and there is the potential for a products liability claim to be pursued.³ Subrogation potential must be evaluated by qualified counsel working in conjunction with your construction or engineering experts.

3. <u>Statutes of Limitations</u>

In many jurisdictions, the statute of limitations for commencing breach of contract or breach of warranty claims may begin to run from the date the work on the building is completed rather than from the date of the loss. Again, such a statute of limitations could expire <u>days</u> after the loss. It is therefore important that such limitations be determined by counsel promptly after the loss occurs so that suit can be commenced immediately if necessary.

4. <u>Privity</u>

Although this restriction has been eroded, many courts still require that a direct contractual relationship exist between the owner and the potentially responsible party for the owner to maintain a negligence action against that party. The "privity" issue is typically implicated when the owner attempts to bring a negligence or breach of contract action against a design professional or subcontractor who was not hired directly by the owner. Privity issues also may arise in potential negligence claims against the supplier of building components for pre-manufactured buildings, when the owner's only written contract is with the general contractor. Again, it is important for this issue to be carefully examined by qualified recovery counsel before any decision is made either to forego or to pursue the subrogation claim.

5. <u>Economic Loss</u>

The economic loss doctrine may bar certain negligence or product liability claims. Generally, the economic loss doctrine provides that if the injured property owner has lost the benefit of the bargain, i.e. what it contracted to purchase, then all remedies must be contractual in nature. Thus, many courts have held that if the only property damaged in the collapse is the building itself, then claims for such damage must be contractual in nature, and tort claims are barred. Some courts have expanded the scope of this doctrine to include personal property which was within the theoretical risk of harm resulting from a structural collapse. The economic loss doctrine can spell doom for a subrogation case if the statute of limitations for breach of contract and breach of warranty claims, which often run

^{3.} As is stated above, products liability claims fall outside the scope of statutes of repose for building improvement claims. However, many states have enacted statutes of repose for products liability claims, typically running from the date of sale, again showing the need for all potential time bars to be analyzed <u>immediately</u> by counsel with subrogation expertise.

from the time the building was built rather than the date of loss, expires before, or, even worse, shortly after the loss occurs. This analysis frequently turns on whether the statutory period begins to run from the date of sale/completion of construction, or from the date of loss. This evaluation requires the expertise of a subrogation specialist attorney.

VII. SUMMARY OF RECOMMENDED PROCEDURES IN INVESTIGATING WEATHER INDUCED BUILDING COLLAPSES

- 1. Make sure your expert consultants immediately photograph the site, measure precipitation depths, and document the content of accumulated snow where appropriate, enlist the assistance of your insured for the same endeavors.
- 2. Through counsel, place all potentially responsible parties on notice of the collapse and the potential claim against them. Such notice should state that claims may be asserted against them, that they are welcome to examine the loss site so long as that is done promptly, and that if they desire to have any specific evidence saved at their expense, they must promptly identify this evidence. All communications should be through counsel.
- 3. Obtain construction documents from your insured, and request them from the potentially responsible partners in exchange for allowing them to inspect the loss site.
- 4. Close examination of the damaged structure should be undertaken immediately by qualified professionals, including extensive photographic documentation and preservation of all building artifacts which relate to the cause of the collapse.
- 5. Retain sufficient construction exemplars so that destructive testing can be conducted, if needed. All evidence should be carefully labeled and stored in a suitable environment and at a secure location.

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