



# INVESTIGATIVE ENGINEERS ASSOCIATION

Service to the Property and Casualty Insurance Industry

*Forensic Engineering Nationwide Since 1991*



## About the Network

- Experience/Expertise
- National Coverage
- Fact Finding
- Thorough Investigations
- Evidence Encasement
- The I-ENG-A® Library
- CAT Response Teams
- Training and Networking

**TAM**  
CONSULTANTS

**I-ENG-A® OF GREATER HAMPTON ROADS**

**By TAM Consultants, Inc.**

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## INVESTIGATIVE ENGINEERS ASSOCIATION (I-ENG-A®)

**I-ENG-A®** [in-juh] : The Investigative Engineers Association is a nationwide network of independent forensic engineering firms providing services to investigate, document, test and secure property/evidence and providing accurate reporting for the property and casualty insurance industry.

I-ENG-A's standardized reporting methodology, database of information and networking ability assists with comprehensive, cost-effective and fastidious claims settlement.



# INVESTIGATIVE ENGINEERS ASSOCIATION (I-ENG-A®)

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## Our History

**Investigative Engineers Association Inc., (I-ENG-A®)** was founded in 1991 as the very first association of forensic or investigative engineers specifically providing training for engineering firms for doing business with the property and casualty insurance industry.



**TAM**  
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**I-ENG-A® of Greater Hampton Roads** is the forensic division of **TAM Consultants, Inc.**, founded in 2002 and has performed hundreds of origin and cause investigations and more than 1500 residential and commercial building inspections, including storm damage assessments. They are a multi-disciplined design, inspection and investigation firm and have handled forensic engineering studies involving a wide variety of origin and cause investigations. Presented herein are services which are offered by **I-ENG-A® of Greater Hampton Roads** by **TAM Consultants, Inc.**

## Training and Networking

Members of the **Investigative Engineers Association (I-ENG-A®)** have all been through an intensive training course developed with more than seventy (70) years of combined experience by the Advisory Board of the Investigative Engineers Association. The methodology developed by the board has a proven success record within the property and casualty industry. Additionally, our online video library assists member firms in subject matter developed by select experts from across the country. The education in total comes to about 100 hours of professional development in the field of forensic and investigative engineering.

**I-ENG-A®** members are trained to have a keen eye for details and to present a consistently produced report in a format that is complete, yet concise, utilizing the scientific method. A consistently formatted report helps the claims representative save time with precise and easily understandable reporting. Networking with member firms helps to provide information in a timely fashion. The **I-ENG-A®** network has performed hundreds of thousands of cases and has expertise in almost every field imaginable, from boilers to gun design, vehicle crash reconstruction, environmental spills and many more. All of this expertise is available to the industry through the local member firm.

“Fast Track Investigation Reporting” provides the shortest route to determine if any further investigation is needed. When the potential for subrogation or discovery of potential fraud exists, our members have the knowledge to assist with professional expertise and are conscious of the time and financial constraints the particular case may hold.

**I-ENG-A® Training and Networking** allows for **expertise on a local level**

opening up the ability for investigation on many more claims while keeping travel costs to a minimum.

**I-ENG-A®** has 75 member locations throughout the USA and more than 800 engineers in the association.



## Evidence Encasement

Evidence handling, documentation and storage is an important aspect of claims handling today, which can be improved by the I-ENG-A® association. When physical evidence is obtained as part of an investigation, it must be **properly documented, and secured as soon as practical to avoid spoliation**. The analysis can come at a later date as long as the documentation and securing has been performed. Parties must be put on notice for proper laboratory examination. And chains of custody must be maintained at all times.

### **Have you ever paid a claim or lost a case because of inadequate information and/or spoiled evidence?**

Unfortunately today, the request for an investigation sometimes may take place months after the loss occurred and valuable evidence may have already been lost. Following the investigation, this evidence must still be held for a period of time so that all parties, even those not currently apparent, are given the opportunity to make their interest in the property known and/or agree to the destruction of said evidence.

Having this knowledge can prevent overpayment on a claim, paying a claim that should not have been paid, losing a lawsuit and/or avoiding future litigation arising from parties who were not initially involved. In summary, our experience has shown us how to best protect your interests. Proper documentation and securing of evidence quickly, if not immediately following the loss, is imperative in today's litigious environment.

This is why many I-ENG-A® members offer 'EVIDENCE ENCASEMENT SERVICES'. Our rapid response evidence encasement services are designed to provide our client with relevant scene evidence documentation. Once the evidence is encased, an information file is supplied to the client to hold until needed.

If litigation develops (usually after a considerable time), the encased evidence can be retrieved and provided to a designated expert. It is a known fact that experts with good information and appropriate evidence are more credible and have greater success in defending their position.

I-ENG-A® engineers and technicians have worked to develop an affordable, flat fee schedule for this service. For more information on our evidence encasement program contact your local member firm listed in this brochure.

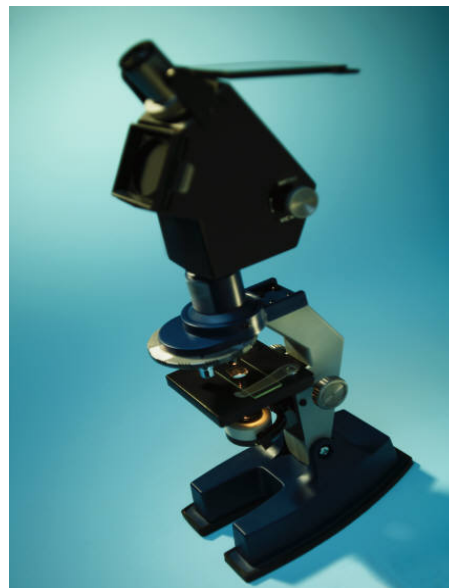
## Laboratory Analysis

When physical evidence is obtained as part of an investigation, it must **be properly documented, analyzed and secured as soon as possible to avoid spoliation**. Parties must be put on notice for proper laboratory examination.

Member firms handle laboratory analysis for an array of products. The **Investigative Engineers Association (I-ENG-A®)** handles a large volume of laboratory analysis. Because of the volume the **I-ENG-A®** network handles, we may be able to offer a lower cost than what you may have experienced in the past.

Laboratory analysis services available through your local **I-ENG-A®** representative firm include:

- Appliances (Sm) (Lg)
- Automotive Component Failure
- Chemical Analysis
- Data Analysis / Data Recovery
- Electric Controls
- Electrical Equipment
- Electrical Wiring
- Fire Cause Related
- Mechanical Failures
- Metallurgical Examinations
- Oil Burners
- Piping
- Plastic & Rubber Material
- Plumbing Fixtures
- Metallurgical Testing
- Water Sampling
- Soot Sampling
- Gas Chromatography
- Gas Chromatography w/Mass Spectrometry
- Forensic X-Raying



## I-ENG-A® Library and Expert Assistance

### Networking

The **Investigative Engineers Association** member firms have participated in hundreds of thousands of engineering investigations involving many billions of dollars in potential claims. Highly specialized expertise is only a phone call away for the local member firm, which may save hours of research, ultimately saving your company time and money.

### Investigative Engineers Association Library

The **Investigative Engineers Association** library of case study information consists of thoroughly sanitized reports and research. Often what is uncovered in one investigation is effective in analyzing similar cases. This also helps save time and money as in many cases there is ***no need to reinvent the wheel.***

**The Investigative Engineers Association's** system of networking has proven to be effective, assisting insurance companies with expert assistance on a local level that is timely, economical and comprehensive.



Theme Park/Carnival Accident Investigations

## Scope of Services

The **Investigative Engineers Association** has experts in more than one hundred and fifty (150) categories of expertise, some of which include:

- Automobile Fire Investigations
- Catastrophe Response
- Construction Defects
- Expert Witness Testimony
- Fungal Origin and Cause
- Industrial Accidents
- Mechanical/Electrical Analysis
- Property Damage Investigations
- Scope and Damages Evaluation
- Structural Analysis Review
- Wind Damage/Water Intrusion
- Asbestos and Chemical Exposure
- Origin and Cause Investigations
- Equipment/Appliance Damage
- Fire and Arson Investigation
- Hail Damage Claims
- Lightning Damage Determination
- Product Failure Analysis
- Seismic or Vibration Analysis
- Slip and Fall Analysis
- Traffic Crash Reconstruction
- Work Environment Issues

No single firm, no matter its size or how broad-based its coverage, can possibly provide the level of service and combined efforts that this national network offers. Thus, **I-ENG-A's** whole is truly greater than the sum of its parts.

***Comprehensive, cost effective and timely reporting.***



## Property Damage

The **Investigative Engineers Association (I-ENG-A®)** members have completed thousands of reports involving the determination of the cause of failures and/or extent of damage in residential, commercial or industrial properties.

An **I-ENG-A®** member begins a systematic investigation to determine the cause of failure and extent of damage. Buildings faults may be monitored to determine any changes with time. Installation procedures must be analyzed. Cost evaluation, review of replacement alternatives and upcoding and betterment issues may need to be addressed. Reports prepared by an I-ENG-A member firm are suitable for litigation purposes and may be used in the preparation of interrogatories and related questions to be asked during statements under oath and in depositions.

### Courtroom Presentations:

Additionally, upon request, the **I-ENG-A®** member will be available for presentation of expert witness testimony or courtroom presentation.

**I-ENG-A®** members are qualified professionals and are adept in the utilization of charts, diagrams, models, and other visuals to enhance the presentation and have access to the latest technology for moisture detection including detection tape for prevention, sensors and infrared cameras.



### Property Damage Services Include:

- Building Code Compliance
- Building Envelope Analysis
- Construction Claims and Defects Analysis
- Commercial Property Construction Assessments
- EIFS and Stucco Analysis
- Flood Effect Evaluations
- Hail Damage Assessment
- Moisture Damage Assessment
- OSHA Regulation Analysis
- Roof Damage Determination
- Structural Integrity
- Upcoding and Betterment Issues
- Windstorm Damage Assessment
- Water Loss Fraud Analysis

## Fire Investigation

Every 15 seconds a fire department responds to a fire somewhere in the United States. The National Fire Protection Association estimates that 86,000 of the 614,000 structural fires in the United States in a recent year were of an incendiary or suspicious nature. **I-ENG-A®** Members determine 'how' and 'why' a fire occurred .

### Origin and Cause:

**I-ENG-A®** members receive specialized training in fire investigation. They perform fire investigations for a wide variety of cases including:

- Automobile Fires - Stolen / Recovered
- Arson Investigation
- Chemical Reactions
- Electrical Appliance and/or Wiring Malfunctions
- Fireplace or Furnace Misuse
- Fires and Explosions
- Heating Equipment and System Failures
- Industrial Equipment Failures /Malfunctions
- Marine Fire Investigations

### Initial Investigations:

The investigation begins with a visual overview. A site inspection is performed for point of origin determination, mapping, interviewing, and photographic survey. Physical evidence is retrieved and preserved for laboratory testing.

### Analysis:

Suspected evidence is researched and tested to narrow the search and isolate the cause of the fire. Examinations of components may be performed to determine the cause of any malfunctions, improper installation, lack of servicing, or careless use or abuse of equipment. Operating temperature profiles of equipment and devices must be found. Samples may need to be analyzed by a laboratory to determine the presence of an accelerant.

### Conclusions:

**I-ENG-A®** members leverage expert knowledge from within their own companies as well as other experts in member firms throughout North America. The result is the generation of an easily-understood written document produced from knowledge rather than supposition, stating the cause/origin relationship of a particular fire. If the evidence can be found, the scientific **I-ENG-A®** approach will reveal it.



## Injuries, Faults and Failures

In many cases, injury often involves falls from ladders or stairs, collapses of scaffolding, railing or balcony failures and slip and fall incidents. In these litigious times, even a seemingly minor slip and fall accident can result in a serious claim.

The I-ENG-A network frequently investigates the origin and cause of many different types of bodily injury claims.

Examples of cases include:

- Slip and Fall Investigations
- Work –Related Injuries
- Injuries from Equipment
- Faulty Design Evaluations
- Improper Maintenance
- Appropriate Caution/Warning Signs

### Slip and Fall Analysis:

Reconstruction of slip and fall claims involves factors that may need to be determined about the surface or situation surrounding the accident occurrence including:

- Surface cleaning procedures.
- Surface treatment procedures.
- Lighting.
- Auditing of maintenance procedures and materials.
- Analysis of work records.
- Interviews of the involved parties and witnesses.

The conditions at the time of the scene of the accident must also be considered and verified.

### Conclusions:

In slip and fall cases, the assessments are based on testing samples and do not represent actual shoe-to-floor values. Research must be performed on an individual basis.

The geometric relationship of objects may play an important determining role in what actually occurred. Diagrams may need to be created to analyze all theoretical possibilities.



## Product Failure Analysis

Product Failure Analysis may involve the investigation of malfunctions or poor design of consumer products including toys and appliances which have caused bodily injury or property damage.

In potential products liability losses involving equipment and machinery, the Investigative Engineer will occasionally be asked to ascertain whether the product or equipment contains an “inherent defect”, arising as a consequence of poor design, faulty material, improper assembly or retrofit alteration. Often the equipment did not malfunction, but operator error or poor maintenance caused the accident. This is an important factor which must also be considered.

The **I-ENG-A®** member has access to highly-experienced experts in fire science, laboratories, researchers and technicians within the network.

### Initial Investigations:

In analyzing product failures, several important facts must be determined.

- Mode of failure
- Cause of failure
- Determination of how the product was being used at the time of failure
- Determination of similar failures of the same or similar products
- Determination of industry standards



### Analysis:

Failed products must be carefully inspected and secured; I-ENG-A members are cautioned to perform only non-destructive testing. Invasive and/or destructive testing is performed only with all parties present. Products are photographed and tested to evaluate:

1. Alterations to the product.
2. Appropriate warnings, instructions and safety alert symbols.
3. Inherently defective products.
4. Improper use of the product.

### Conclusions:

**I-ENG-A®** affiliates offer their clients easily understood written reports stating conclusively the cause-effect relationship surrounding a particular failure. **I-ENG-A®** members are well equipped to be prepared for courtroom testimony with demonstrations and models as necessary.

## Microbial Origin and Cause

Fungal conditions and damages within structures are a source of concern and liability. Fueled by insurance claims, publicity campaigns and litigations, the appropriate handling of fungal damages has evolved into a series of detailed investigative phases and procedures. Typical steps in the investigative process include assessing the extent of a fungal condition, developing a remediation protocol to abate the fungal conditions and performing a post remediation clearance inspection.

An additional step in more sensitive and complex cases is the process of determining the origin and cause (O&C) of the fungal conditions. Accurate O&C investigations accomplish two primary goals including making remediation more effective by preventing the source conditions from reoccurring and assisting in limiting or assigning liability to the appropriate parties.

Investigative Engineers Association members often investigate the origin and cause of mold.

Our investigative procedure generally consists of the following:

- Obtain information on all building materials and code requirements in area of loss (i.e., type of materials, age, type of insulation, type of HVAC system)



- Determine building science and HVAC specialties
- Document environmental conditions within structure
- Perform moisture mapping and document fungal patterns
- Conduct environmental sampling
- Develop sketch of building footprint and document all evidence discovered
- Document sources of causes of fungal conditions
- Connect the dots and arrive at Origin and Cause opinion

## Transportation Issues Evaluations

The Investigative Engineers Association provides evaluations of many types of automotive and marine failures including fire origin and cause, component or tire failure analysis, crash reconstruction, traffic signal operations and roadway or highway defect analysis.

Crash reconstruction involves the inspection of scenes and vehicles to preserve physical facts relating to an incident by utilizing photographs, recording devices onsite, videos and measuring techniques. The process involves analyzing human factors as well as physical facts using proven scientific principles.

### Initial Investigations:

The investigation begins with an analysis of police accident reports and photographs, media coverage, on-site inspection and survey, vehicle examination, witness statements and interviews.

Site inspection includes analysis of marks on road, crash debris, vehicle fluid spills, line-of-sight surveys and road defects. All police marks should be identified, located by measurement and recorded. Dynamics of the vehicle must be analyzed including determination of speed, lines-of-travel, impact areas and crush stiffness coefficients.

### Analysis:

A proper scientific analysis based upon verifiable fact and natural law is established.

Crash factors may include:

- Right of Way
- Component Failure/Defect
- Vision/Visibility
- Stopping Distance/Brakes/Speed
- Roadway Conditions
- Human Factors
- Vehicle Dynamics
- Weather Conditions

Inspection and documentation of the vehicle condition may include inspection of vehicle components, recording of dam-

age patterns and mechanical condition, determination of headlight, signal light or brake light condition at the time of impact, and/or compliance of vehicle condition with certification or regulatory standards

### Conclusions:

An analysis of the incident is calculated by determining the motion and direction of the vehicles prior to the incident, the orientation and position of vehicles at impact and the vehicle speeds and dynamics prior to and after impact.

### CONSULTATION SERVICES:

- Automobile Equipment Failure Analysis
- Boat and Marine Fires/Accidents
- Fire Origin and Cause Evaluation
- Gasoline and Chemical Spill Environmental Analysis
- Mechanical Maintenance Reviews
- Product Defect Analysis
- Service Schedule Analysis
- Tire Failure Analysis
- Traffic Crash Reconstruction



## I-ENG-A® Catastrophe (CAT) Response Team

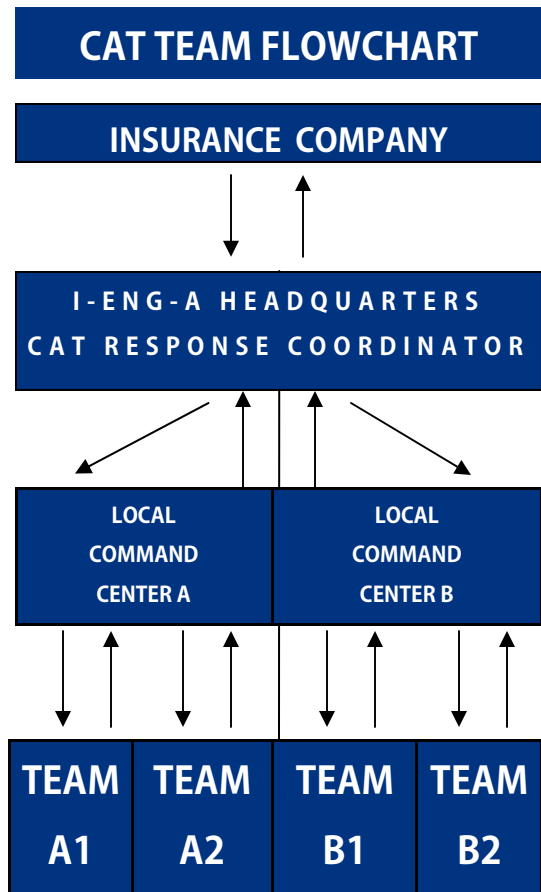
Typically, the **INVESTIGATIVE ENGINEERS ASSOCIATION (I-ENG-A)** member firms work individually in their local region. I-ENG-A member firms are prepared to work together as teams when the need arises.

The **I-ENG-A Catastrophe (CAT) Response Team** responds to events such as hurricanes, fires, earthquakes, and man made disasters when called upon by the insurance industry.

According to the Insurance Information Institute, “An event is designated a catastrophe by the industry when claims are expected to reach a certain dollar threshold, currently set at \$25 million, and more than a certain number of policyholders and insurance companies are affected”. These events require a team or ‘teams’ of engineers to ascertain the damages, document and/or determine the cause of the losses, and in many cases, to develop plans to rebuild, all in a timely fashion.

### I-ENG-A CAT Team Benefits:

- Capable of supplying multiple engineering teams at once for timely turn around of a group/volume of assignments
- Licensed and insured professional engineers for affected State(s)
- Structured teams can handle large numbers of assignments concurrently
- Local representation assures a timely response of teams to disasters
- Local operational firm serves as a command center
- Long term local involvement with projects from command center
- Capable of rapid field investigations and report development
- Multi-disciplined engineering teams
- Trained and experienced with Storm Damage Assessments
- Efficient and cost effective investigations



## I-ENG-A® Catastrophe (CAT) Response Team

### I-ENG-A CAT RESPONSE TEAM'S SERVICES INCLUDE:

- ORIGIN AND CAUSE (O&C) INVESTIGATIONS
- PRE-EXISTING VS. STORM DAMAGE DETERMINATIONS
- STRUCTURAL DAMAGE ASSESSMENTS
- GEOTECHNICAL EVALUATIONS
- WIND DAMAGE ASSESSMENTS
- STORM SURGE ASSESSMENTS
- WIND VS. SURGE/FLOOD OR WATER DAMAGE DETERMINATION
- SEISMIC DAMAGE EVALUATION
- HAIL DAMAGE ASSESSMENTS
- MECHANICAL/ELECTRICAL EVALUATIONS
- ENVIRONMENTAL ASSESSMENTS
- MOISTURE MAPPING
- MOISTURE INTRUSION/INDOOR AIR QUALITY



The local **I-ENG-A** member firm serves as the licensed Command Center for catastrophes in the field of operation. Member firm engineers and technical support staff participants from the **I-ENG-A** pool of engineers and experts may be utilized on a bi-weekly rotation basis.

Each CAT team typically is comprised of three to five engineers/technicians capable of completing fifty to sixty field assignments during a seven day field deployment (providing the assignments are in a fairly consolidated area). We would propose that the final report for each assignment would be in the hands of our client within three weeks of the completion of the field work, with brief milestone status reports throughout the process.

## Standardized Reporting System

**Insurance Company Name:** Contact Name, Address, City, State, Zip, Phone, Fax, Email

**Insured:** First Name, Last Name, Address, City, State Zip, Phone

**Claim #:** 000-0000-0000

**D.O.L.:** 01/01/2007

### **PREAMBLE**

*In accordance with your request, this organization made an on-site inspection and engineering evaluation to determine the cause and origin of cracks in masonry foundation walls of Mr. XXXX XXXXX's residence. Our investigations were limited to on-site observations and interviews with claimant.*

### **BACKGROUND INFORMATION**

*It is understood that the claimant experienced some water infiltration in spring of 2006 and noticed some fresh cracks in the masonry foundation (back portion of north wall) of his residence. It was reported that the property was purchased some eight years ago and now the wall appears to be dangerous and unstable.*

### **PURPOSE & SCOPE**

*The purpose of the investigation was to perform an on-site inspection and render an engineering opinion as to cause and origin of the cracks in the masonry foundation. The scope of our investigation included the following:*

- 1. Site inspection*
- 2. Interview with claimant to gather further data*
- 3. Site measurements, photos and record pertinent observations*
- 4. Dig small bore hole near foundation wall*
- 5. Engineering assessment of site conditions and source of occurrence*
- 6. Preparation of a fast-track report to present results of findings and render a professional opinion*

### **RESULTS OF INVESTIGATION**

*We conducted our investigation on XXX XX 2006, in the presence of Mr. XXX XXXXX. In the course of our investigation we made the following pertinent observations:*

- 1. As a whole, the house does not show problems of plumb, level or alignment.*
- 2. The house does not show signs of settlement problems.*
- 3. The problem area is limited to house's west end foundation wall (recent concrete block foundation)*
- 4. The main house foundation is much older and appears to be considerably thicker.*
- 5. The vertical load on problem foundation is very small  
(short span floor joists, light weight wall construction {siding}, one story only).*
- 6. Surface water drainage is poor, no positive drainage away from house, no gutters, window well with no apparent connections to perimeter drain.*
- 7. Backfilling done with native soil (frost-susceptible clay material). The front porch slab shows signs of movement caused by frost-susceptible soil (floating type foundation shows easier movement).*
- 8. The problem wall is adjacent to the driveway where snow is removed and therefore frost penetration in soil is deeper. Since the driveway is also adjacent to neighbor driveway, penetration in soil is deeper. Since the driveway is also adjacent to neighbor driveway, any horizontal expansion due to freezing of water in clay, should transfer lateral pressure on problem wall.*

**Standardized Reporting**  
**Page 2 of 2**

Claim #: 000-0000-0000

D.O.L: 01/01/2009

9. *Improper backfilling technique may have been used as wall appears to have buckled during construction stage (as evidenced by repairs of wall done under damp proofing one very thick horizontal joint layer at new crack opening with same texture & color as original mortar)*
10. *Wall cannot sustain any horizontal pressure since it is not plumb, failed, and was apparently never corrected properly from an initial construction problem.*
11. *No sign of water infiltration, no discolorations & sump pump was dry; therefore, low probability of hydrostatic pressure problem.*

**DISCUSSION OF RESULTS**

*The wall was subject to long term heavy horizontal thrust. The location of cracks and initial repair would point toward problems at backfilling time, as would the evidence of different mortar colors and types of repair. These different mortar colors and types of repair patches demonstrate a chronic situation of a failed or failing wall, (out of plumb, cannot resist any horizontal pressure) that was patched and re-patched. The freezing and thawing cycle, with a clay soil backfilling material (water in clay expands when freezing) exerted horizontal force and re-opened the cracks. The wall is now 3¼" out of plumb and if not replaced, could fall and cause serious damage.*

**CONCLUSIONS / OPINIONS**

*Based on the results of our investigation, the following conclusions/opinions would appear to be warranted:*

1. *The recent opening of cracks in the masonry foundation wall problem area are due to an event at the time of construction or soon after construction. The different patchwork demonstrates the chronic status of problem. The recent crack re-opening cannot be considered to have been caused by a sudden or accidental event (the actual accident appears to have occurred more than eight years ago).*
2. *To our understanding, the claimant did not perform any repairs to the wall since he purchased the house eight years ago; therefore the patching dates before his purchase, and unfortunately did not get his attention (something a qualified pre-purchase inspector would have easily identified).*
3. *The wall is unstable and should be replaced as soon as possible. If not corrected, the wall will fall and may cause serious damages.*

*Conclusions drawn in this report are based on observations and on information available, known and declared at the date of investigation and/or the time of preparation of this report.*

*This report is furnished as privileged and confidential to addressee. Release to any other company, concern, or individual is solely the responsibility of the addressee.*

## Local Member Firm

### I-ENG-A® OF GREATER HAMPTON ROADS

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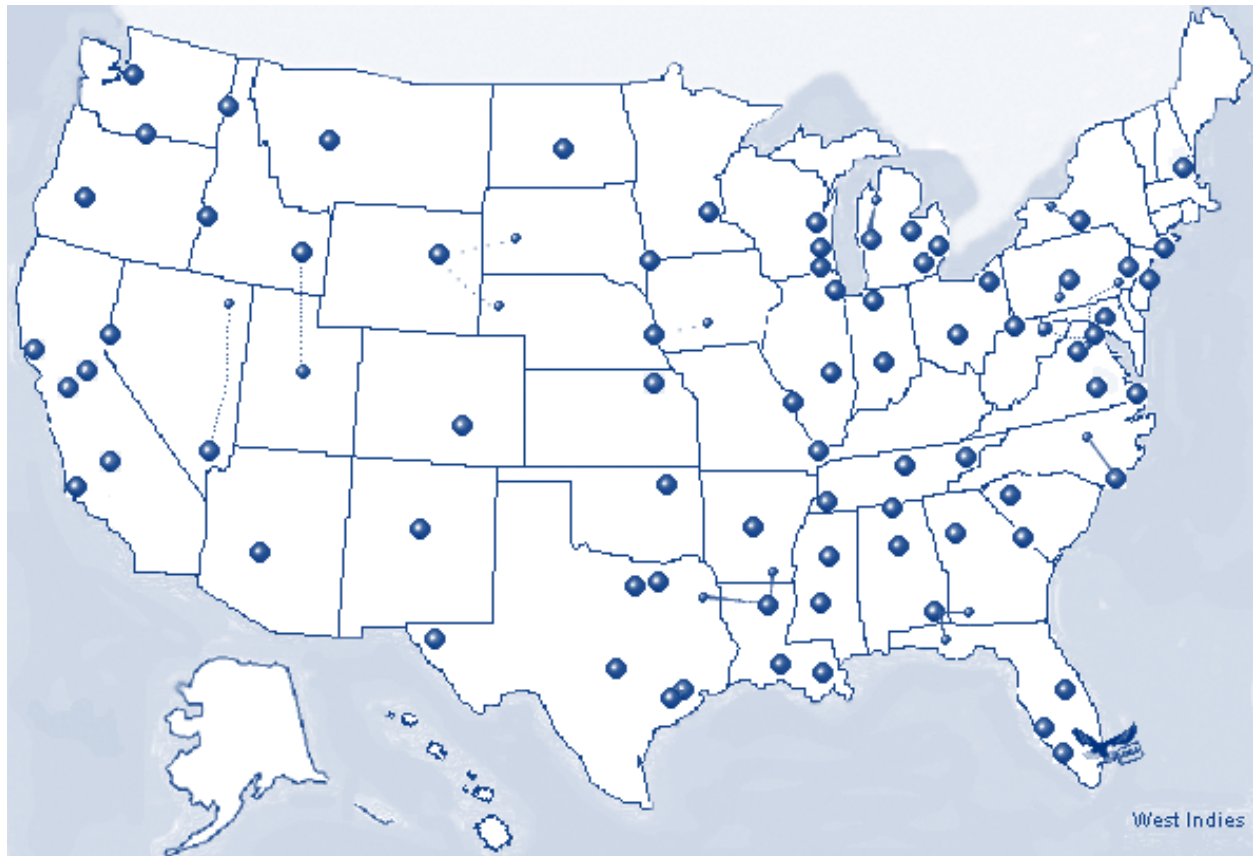
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#### Background and Specialties:

I-ENG-A® of Greater Hampton Roads by TAM Consultants, Inc., is dedicated to servicing the Property & Casualty Insurance Industries and their legal counterparts. Mr. Timothy A. Mills is the principal professional engineer at the firm. They are a valuable asset to the I-ENG-A® team and, are complemented by experts in every discipline including more than 150 categories of expertise. I-ENG-A of Greater Hampton Roads is a multi-disciplined firm able to offer a 'one-stop shop' for forensic reporting needs and expert witness testimony in many fields.



## Map of I-ENG-A Member Firm Locations



INVESTIGATIVE ENGINEERS ASSOCIATION  
(I-ENG-A® [in-juh]),  
**Forensic Engineering**

The nation's most experienced network of engineering firms providing  
"Origin and Cause" investigations for the  
Insurance Industry.

Visit [www.ienga.com](http://www.ienga.com) for additional information about expert capabilities,  
question and answer forums and much more.

**THE INVESTIGATIVE ENGINEERS ASSOCIATION  
“INSURANCE-WISE” PROFESSIONAL FORENSIC  
AND INVESTIGATIVE ENGINEERING FIRMS**

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