

# Prevention & Response Program for Mold/Water/Moisture

**Corporate Plan**

**January 19, 2017**

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## Introduction

### Purpose and Objectives

Davis Constructors & Engineers, Inc. (Davis Constructors) has developed a Mold / Water / Moisture Prevention and Response Program (“Mold Plan”) to minimize property damage and liabilities resulting from a water loss or mold growth condition associated with architectural design, construction processes or actions by our employees and subcontractors.

Objectives:

- Prevent and respond to moisture/water or mold growth conditions;
- Detect water losses and mold growth early to minimize construction material and property damage and liability; and
- Outline procedures for responding to a moisture/water or mold growth condition.

### Application

The Mold Plan is applicable to Davis Constructors and our subcontractors during all phases of work. Once built, systems such as existing heating, ventilation, air-conditioning (HVAC) or elevator systems are under the control of our clients, and therefore the owners’ responsibility.

### Key Components

The following are important components of the Davis Constructors Mold Plan:

- Preventive maintenance and inspection
- Planning and management of projects and subcontractors
- Established procedures to minimize potential moisture/water intrusions
- Guidelines for identification, determination of the extent of damage, response and remediation
- Communication during and following a moisture/water condition or mold growth (incident).
- Training objectives and goals for Davis Constructors personnel
- Assignment of Mold Plan responsibilities and tasks
- Proper documentation

### General Prevention of Fungal Growth on Building Materials

Two keys to preventing fungal growth within buildings or on building materials are:

- Moisture control
- Rapid response

Once a moisture/water condition is discovered, inspect the area immediately to

- determine the source
- quickly eliminate additional moisture/water
- dry the dampened or wet building materials

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## Preventing Water/Mold Incidents

### Preventive Maintenance

The Project Superintendent is responsible for ensuring that a preventive maintenance program is in place to minimize the likelihood of a water loss associated with all construction activities performed by Davis Constructors or our subcontractors. Preventive maintenance will minimize potential causes of moisture/water or mold growth conditions at both subcontractor/supplier and project sites.

### Liability and Risk Posed by Subcontractors

Davis Constructors has agreements with a number of construction trade subcontractors, including suppliers of plywood and lumber, as well as other building materials. Some liability and risk is posed by subcontractors bringing building materials onsite or working with wet building materials. To ensure that subcontractors understand how to communicate potential water release and mold growth situations, Davis Constructors will add the following text in subcontract documents:

“All subcontractors will follow the Davis Constructors Water Release and Mold Prevention Program plan, and will ensure that workers performing activities on a Davis Constructors project site can demonstrate an ability to communicate water release or mold growth concerns to Davis Constructors Laborers, Foremen, and Project Superintendents. Subcontractor shall ensure that building materials brought onsite are free from unusual moisture and all mold growth. Any materials abnormally wet, or exhibiting signs of mold growth, will not be used until dried, treated or replaced.

### Long Periods of Downtime

Should a construction project be shut down for a long period of time, especially those involving interior redesign, a plan will be put in place to ensure water pooling and excessive humidity levels do not occur or are taken care of timely, and that stored building materials do not become dampened.

## Weather Exposure

Precautionary measures should be taken so that porous building materials (i.e., wood, drywall sheathing, cellulose insulation, etc.) are not exposed to moisture or water. To that end, the Project Superintendent, depending on the type of project site, will protect all porous building materials to be used by Davis Constructors employees or subcontractors from precipitous weather exposure (e.g., morning dew, rain, sleet, snow, etc.) prior to and during construction or renovation. If porous building materials cannot be protected from precipitous weather exposure, the Project Superintendent, depending on the type of project site, will ensure that all dampened/wetted building materials are dried thoroughly and are inspected for signs of moisture, water damage, and mold growth prior to use.

## Programmed Inspections

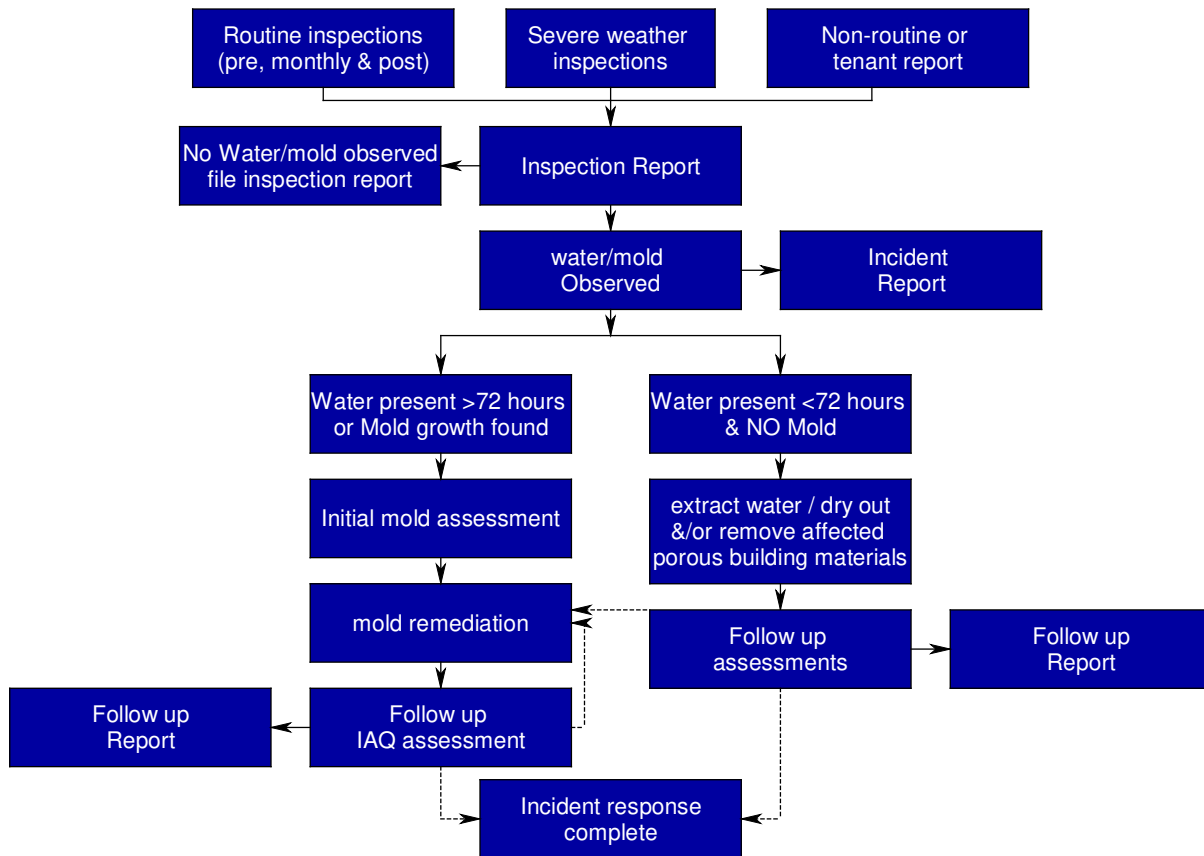
The Project Superintendent will routinely perform inspections of building materials and construction sites for signs of moisture, standing water, water-damaged building materials, and mold growth. In addition, building materials and building surfaces that could be affected by relative humidity and condensation shall be inspected. The purpose of these inspections is to detect obvious signs of moisture/water, water damage, or mold growth. The inspections will help provide early detection of moisture/water or mold growth conditions and reduce costs associated with such losses.

Inspections shall be fully documented using the “Inspection Checklist” (Appendix 2). It is the responsibility of the Project Superintendent or designee to maintain and update this Inspection Checklist. The Project Superintendent will be responsible for ensuring that water loss and mold-contaminated building materials inspections are performed and that records of these inspections are forwarded to the Main Office for the Davis Constructors Project Files. At a minimum, inspections will be conducted during the following:

- Prior to starting work with building materials most susceptible to mold growth, and to assess any existing issues prior to beginning work;
- Following severe weather (high winds, heavy snow/ice or heavy rainstorms);
- Upon completion of a construction project;
- High humidity in enclosed spaces
- Monthly during the course of a long-term construction project; and
- Following owner/tenant occupant reports of a moisture/water or mold growth condition resulting from construction performed by Davis Constructors.

Upon observing a moisture/water, water damage, or mold-growth condition, the Project Superintendent will fill out an “Incident Report Form” (Appendix 3), and forward it to the Project Manager, the Principal in Charge and Main Office. The following flowchart shows what happens next.

## Moisture/Water and Mold Growth Condition Inspections and Response Flowchart



## Incident Response

Moisture/water and mold growth conditions (Incidents) (and owner/tenant complaints or concerns over such conditions) may arise despite preventive measures. It is important to follow an established process to resolve each Incident. The flowchart shows tasks and responsibilities for all key personnel.

Document all inspections on an “Inspection Checklist” (Appendix 2). If moisture/water, water damage, or mold growth are found, document on the “Incident Report Form” (Appendix 3). The Project Superintendent will document all further evaluations or remediation from the Incident Report on the “Follow-up Tracking Form” (Appendix 4). All documents should be forwarded to Main Office for the Safety and Project files.

### Owner/Tenant Complaint or Concern

1. Once an owner/tenant complaint or concern regarding potential water losses and/or mold contamination is received, the Project Superintendent shall notify the Project Manager in a timely manner who shall respond. However, if the release or mold contamination is major, significant and disruptive, then the Project Superintendent shall immediately notify the Project Manager, who should also notify Principal in Charge.
2. The Project Manager will coordinate, or direct the Project Superintendent to conduct an investigation of the alleged moisture/water or mold growth conditions as soon as possible for non-emergency situations (i.e., condensation is observed on a supply diffuser), or immediately for emergency situations (i.e., water line rupture with a large pool of standing water present) to investigate the owner/tenant report.
3. Any findings of moisture/water or mold growth will prompt:
  - a. The completion of an “Incident Report Form” (Appendix 3), which will be immediately forwarded through the Project Manager to the Principal in Charge, Main Office.
  - b. The Project Superintendent will inform the Project Manager of all initial client communication, and the Project Manager will keep Principal in Charge informed of all communication with owners/tenants.
  - c. The Project Superintendent will oversee all water extraction, mold remediation and/or inspection activities (see “Observed Moisture/Water Condition” and “Observed/Likely Mold-Growth Condition” below).
4. Notify Project Manager if no obvious signs of moisture/water, water damage, or mold growth are found. The Project Manager (or designee) will then forward the results to the owner/tenant. If the owner/tenant is still concerned, an onsite meeting between the owner/tenant, the Project Manager, and/or Principal in Charge will be held to investigate the concerns. If no resolution can be made, Davis Constructors will seek outside assistance (i.e., contracting a certified industrial hygienist to conduct an independent investigation) to resolve the matter.

### Observed Moisture/Water Condition

1. Project Superintendent will document findings of a moisture/water condition on an “Incident Report Form” and forward to the Project Manager immediately for prompt action with copies going to the Principal in Charge and Main Office. In an emergency (significant water loss/release), the Project Superintendent will notify the Project Manager (and possibly Principal in Charge) immediately and complete the “Incident Report Form” as soon as practical.
2. Upon notification of a moisture/water condition, the Project Manager will verify the condition as soon as practical based on the report. The Project Manager may conduct a site visit together with the Project Superintendent to gather further information concerning the observed conditions at the client site.

3. The Principal in Charge and the Project Manager will determine which of the following responses to take:
  - a. If the reported moisture/water condition does not appear to be the result of construction practices or HVAC-system-related components (e.g., cooling towers) installed by Davis Constructors or a condition defined and addressed in a contract, then the Project Manager or the Principal in Charge will notify the owner/tenant of the observed condition. No further actions are required.
  - b. If the reported moisture/water condition appears to be the result of construction practices or HVAC system and related components installed by Davis Constructors or its subcontractors, then the Project Manager or the Project Superintendent will:
    - i. Instruct on-site personnel to control the source of moisture/water causing the condition to occur, if known and possible. If the source is unknown, Davis Constructors will seek internal or external resources to properly identify the cause of the moisture/water condition to ensure that it does not occur again.
    - ii. Instruct onsite personnel to turn off the circuit breakers (if there is no risk of electrical shock) supplying electricity to wet areas and/or unplug and remove any small electrical devices currently located on the wet floor coverings or other wet surfaces.
    - iii. Determine whether water extraction activities should take place. If the water loss was identified within forty-eight (48) hours of its initial occurrence, water extraction activities should be conducted. In addition, the Project Superintendent and Project Manager should determine whether an emergency water extraction contractor should be contracted.
      - 1) In cases where the water source has affected greater than one hundred square feet (>100 SF) of material or is suspected to be gray or black water, either Davis employees or extraction contractor will remove standing water and dry out dampened/wetted building materials.
      - 2) If the water source is clean water and only a small area (less than one hundred square feet [<100 SF]) is affected, properly trained Davis Constructors employees will perform the dry-out procedures.
    - iv. Determine whether the affected area should be managed as an observed/likely mold growth condition, in which case "Observed/Likely Mold-Growth Condition" will be followed.
    - v. Notify the owner/tenant of the moisture/water condition and any corrective actions that Davis Constructors is planning to take.
4. Following dry-out procedures the Project Superintendent will inspect the affected area(s) to determine if the dry-out procedures appear to be effective. (Building materials were dried out promptly and no apparent signs of mold growth are present).



- a. If the dry-out procedures were believed to be successful, the Project Manager will subcontract for a follow-up Indoor Air-Quality (IAQ) inspection (see “Investigation Subcontractors” for further details).
  - b. If the dry-out procedures are determined to be unsuccessful by the Project Superintendent, Project Manager, or the IAQ subcontractor during his/her follow-up inspection, follow the procedures outlined in “Observed/Likely Mold-Growth Condition” below.
5. Upon successful completion of the water extraction or determination that mold remediation activities are necessary, the Project Manager or the Principal in Charge will inform the client what future activities, if any, will be taken.

**Small, “Clean” Water Dry-Out Procedures**

Affected Materials	Actions
Books and papers	<ul style="list-style-type: none"> <li>• For non-valuable items, discard books and papers.</li> <li>• Photocopy valuable/important items, discard originals.</li> <li>• Freeze (in frost-free freezer or meat locker) or freeze-dry.</li> </ul>
Carpet and backing	<ul style="list-style-type: none"> <li>• Remove the water with a water extraction vacuum.</li> <li>• Reduce ambient humidity levels with dehumidifier.</li> </ul>
Ceiling tiles	<ul style="list-style-type: none"> <li>• Discard and replace.</li> </ul>
Concrete or cinder block surfaces	<ul style="list-style-type: none"> <li>• Remove the water with a water extraction vacuum.</li> <li>• Accelerate the drying process with dehumidifiers, fans, and/or heaters.</li> </ul>
Hard surface, porous flooring (e.g., linoleum, ceramic tile, vinyl)	<ul style="list-style-type: none"> <li>• Vacuum or damp wipe with water and mild detergent; scrub if necessary; and allow to dry.</li> <li>• Dry sub-flooring if necessary.</li> </ul>
Insulation	<ul style="list-style-type: none"> <li>• Discard and replace.</li> </ul>
Non-porous, hard surfaces (e.g., plastics, metals)	<ul style="list-style-type: none"> <li>• Vacuum or damp wipe with water and mild detergent; scrub if necessary; and allow to dry.</li> </ul>
Upholstered furniture	<ul style="list-style-type: none"> <li>• Remove water with a water extraction vacuum.</li> <li>• Accelerate the drying process with dehumidifiers, fans, and/or heaters.</li> <li>• If the piece is valuable, you may wish to consult a restoration/water damage professional who specializes in furniture.</li> </ul>
Wallboard (e.g., drywall and gypsum board)	<ul style="list-style-type: none"> <li>• May be dried in place if there is no obvious swelling and the seams are intact. If not, remove, discard, and replace.</li> <li>• Ventilate the wall cavity by cutting small holes in the wallboard, if possible.</li> </ul>

Affected Materials	Actions
Window drapes	<ul style="list-style-type: none"> <li>• Follow laundering or cleaning instructions recommended by the manufacturer.</li> </ul>
Wood surfaces	<ul style="list-style-type: none"> <li>• Remove moisture immediately and use dehumidifiers, gentle heat, and fans for drying.</li> <li>• Treated or finished wood surfaces may be cleaned with mild detergent and clean water and allowed to dry.</li> <li>• Wet paneling should be pried away from the wall in order to allow it to dry.</li> </ul>

### Observed/Likely Mold-Growth Condition

1. The Project Superintendent will complete the “Incident Report Form” and immediately forward to the Project Manager for prompt action, with copies to Main Office for documentation.
 

**Exception:** when mold growth has resulted after a water extraction. The preliminary notifications and reports already would have been completed by the Project Superintendent.
2. Upon notification of a mold-growth condition, the Project Manager will verify the condition as soon as practical based on the report. The Project Manager, together with the Project Superintendent, may perform a site visit to gather further information concerning the observed conditions at the client site.
3. Project Manager will determine which of the following responses to take:
  - a. If the reported mold growth condition does not appear to be the result of a moisture/water source associated with construction activities performed by Davis Constructors, the Project Manager or the Principal in Charge will notify the owner/tenant of the observed condition. No further actions are required of Davis Constructors.
  - b. If the reported mold condition appears to be the result of construction activities performed by Davis Constructors, the Project Manager or the Project Superintendent will:
    - i. Instruct onsite personnel to control the source of moisture/water causing the condition to occur, if known and possible, and if it has not already been controlled. If the source is unknown, Davis Constructors will seek internal or external resources to properly identify the cause of the moisture/water event in order to ensure that it does not occur again following the completion of mold remediation activities.
    - ii. Determine who will perform mold remediation. If a large amount of building materials are determined to be affected by water at any point during a remediation performed by Davis Constructors employees, a water extraction subcontractor may be called in to support response efforts

- iii. Determine if an IAQ inspection (see “IAQ Investigation Subcontractors” for details) will be conducted if a large amount of mold contamination is present. Following the investigation, a mold remediation subcontractor will be contracted, per the qualifications set forth by the Indoor Air Quality Association (IAQA), to remove any affected materials.
    - iv. Support the Principal in Charge in either meeting with, or informing the building owner/tenant about the mold-growth condition and any remedial actions that Davis Constructors is planning to take.
  4. Following mold remediation activities by Davis Constructors or a mold remediation subcontractor, an investigation subcontractor will be contracted to conduct a follow-up IAQ inspection (see “IAQ Investigation Subcontractors” below) of the completed work. Based upon the results of the investigation, the following will occur:
    - a. If mold remediation activities were successful, the investigation subcontractor will be required to issue an approval for the work performed.
    - b. If further mold remediation activities are necessary, additional mold and follow-up IAQ inspections will be conducted until an approval can be issued.
  5. Upon receiving IAQ subcontractor approval indicating that the mold remediation activities were successful, the Project Manager or the Principal in Charge will inform the owner/tenant that the mold growth previously present was successfully remediated.

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## Communication

Communication is a vital part of the Mold Plan. Upon discovering a moisture/water or mold growth condition, any Davis Constructors employee or subcontractor associated with construction work should immediately notify the Project Superintendent. The Project Superintendent will immediately notify the Project Manager who will notify Safety Manager. The Project Manager and/or the Project Superintendent will conduct an onsite inspection, and the Project Manager and Principal in Charge will determine the level of response needed.

The Project Superintendent will coordinate and oversee water-extraction and mold remediation activities and keep the Project Manager informed about the progress of activities. The Project Manager will, in turn, update Principal in Charge on the status of any water extraction or mold investigation/remediation activities. The Project Manager and/or Principal in Charge will be responsible for keeping owners/tenants informed about incidents and responses.

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## Remediation Subcontractor Management

This section outlines the guidance for qualifying water extraction, mold remediation and investigation subcontractors and the basic services and deliverables that these subcontractors are expected to provide.

**A Note on Safety:** All water extraction, mold remediation, and investigation subcontractors shall be made aware of potential hazards they may encounter. As with any subcontractor, these subcontractors will be made aware of and follow the Site Specified Safety Plan for the project. Hazards to consider are: electrocution, physical hazards of moving mechanical equipment, burns, falls, structural integrity of building materials, microbiological exposure, chemical exposure, and asbestos exposure.

### Mold Remediation and Water Extraction Subcontractors

#### Qualifications

Only qualified water extraction and mold remediation contractors will be employed by Davis Constructors. To be qualified, water extraction and mold remediation contractors must provide all of the following:

- References from past dry-out or mold remediation projects;
- Documentation of completion of any water extraction or mold remediation training courses attended, such as those presented by the Indoor Air Quality Association (IAQA), the American Indoor Air Quality Council (AmIAQ), the Institute of Inspection, Cleaning and Restoration Certification (IICRC), and the National Air Duct Cleaners Association (NADCA);
- Documentation of any professional water extraction/restoration or mold remediation certifications/licenses held, such as those offered by the IAQA, the AmIAQ, the IICRC and the NADCA; and
- Documentation of liability insurance, business license and contractor's license.

Water extraction and mold remediation contractors are to be screened by Project Manager for proper qualifications. Once approved, the water extraction and mold remediation contractor will be informed of the objectives and their roles and responsibilities.

#### Services and Deliverables

##### Water Extraction Subcontractors

The water extraction subcontractor is the first line of defense against mold growth when a moisture/water source is detected early (within 48 hours of its occurrence). The water extraction subcontractor will provide guidance and take actions to dry-out and/or remove building materials to prevent fungal growth from occurring. During the course of the dry-out process, the water extraction subcontractor is to document all dry-out activities performed. Upon completion of the dry-out, the water extraction subcontractor is to provide a brief written report to the Project Superintendent assessing their perceived effectiveness in preventing mold growth from occurring and any findings made during

the course of their on-site activities. The Project Superintendent will forward all subcontractor reports to Main Office, and notify the Project Manager and the Principal in Charge regarding report conclusions.

### Remediation Subcontractors

Following an IAQ investigation, if corrective actions are necessary for the removal of water-damaged and/or mold-containing materials, Davis Constructors will hire a qualified mold remediation subcontractor to perform remediation activities. The mold remediation subcontractor will follow the scope of work as outlined in the remediation plan generated by the investigation subcontractor. Remediation goals and “clearance” levels shall be agreed to before any remediation work begins.

The mold remediation subcontractor will document the remediation activities performed and supply that documentation to the Project Superintendent and Project Manager. Documentation will include pictures before and after work has been performed. The Project Manager will forward subcontractor reports to the Principal in Charge and Main Office.

## Investigation Subcontractors

### *Qualifications*

A qualified Indoor Environmental Professional (IEP), who has no business affiliation with the remediation contractor, will be utilized by Davis Constructors to identify mold and determine the extent of damage related to a moisture/water or mold growth condition. From these assessments, the IEP will then be retained to generate a mold remediation plan (if one is needed), which will outline the corrective actions to be performed. Finally, an IEP will be used for non-routine water loss or mold remediation activity, to verify the effectiveness of any dry-out and/or mold remediation activities.

To be competent to perform an investigation of a moisture/water or mold growth condition, an IEP must:

- Have documented experience performing investigations for water damage and mold growth within buildings;
- Documentation of liability insurance, business license and contractor’s license.
- Be familiar and experienced in working with federal, state and municipality mold remediation guidelines.

Investigation contractors are to be screened and qualified Project Manager. Once approved, the investigation contractor will be informed of the objectives of the Mold Plan.

### *Services and Deliverables*

IAQ investigators are contracted to provide initial and follow-up assessments under the Mold Plan. All investigation findings and results must be communicated directly to the Project Superintendent and Project Manager. Reports should also be forwarded to the

Principal in Charge and Main Office. The assessments should result in one or more of the following:

1. A written report identifying the apparent cause(s) of the condition(s) present.
2. A remediation plan outlining any corrective actions necessary
3. A clearance approval form, if no corrective actions are necessary, signifying that no signs of mold growth were found and that air quality was acceptable on the date of sampling.

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## Training

All Davis Constructors, maintenance staff, laborers and subcontractors will receive **awareness** training on:

- The objectives of the Mold Plan;
- Basic awareness of construction practices that may lead to a moisture/water or mold growth condition (appendix 5); and
- Recognition of dampened or wetted building materials that can lead to potential mold growth

Davis Constructors managers (Principals, Project Managers, Project Superintendents, Safety Staff) with roles and responsibilities defined and involved with either responding to, or coordinating water extraction and/or mold remediation activities will receive **advanced** training on:

- The objectives of the Mold Plan;
- Their specific roles and responsibilities (appendix 5);
- Awareness of practices and field situations / environments that may lead to a moisture/water or mold growth condition (appendix 5);
- Recognition of dampened or wetted building materials that can lead to potential mold growth;
- Emergency dry-out procedures;
- Remediation by qualified contractors of small areas of mold growth, including:
  - a. Containment procedures;
  - b. Use of proper personal protective equipment (PPE) during remediation;
  - c. Necessary remediation activities for different types of materials (porous, non-porous, and semi-porous);
  - d. Proper removal of damp/wet or mold-containing materials from an affected area;
  - e. Proper cleaning activities following the removal of all damp/wet and mold-containing materials.

The person conducting the training will be knowledgeable in the subject matter. The necessary training must be updated when a change is made to the Mold Plan. The Safety Staff is responsible for the development of this training, keeping proper training records, and ensuring that the necessary training is provided to all relevant Davis Constructors personnel.

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## Appendix 1 - Moisture Prevention Checklist

This checklist is a tool to support maintaining safe premises, practices, operations and equipment. The checklist does not cover all possible hazardous conditions or unsafe acts or conditions that may exist. For any further questions in this matter please consult the Director of Safety.

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### Pre-Construction Checks

- ❑ Project management and workers trained in importance and methods of preventing mold growth.
  - Keep interior materials dry-prior to, during and after installation
  - Do not wet building materials
  - Report any water damage, leaks or intrusion to Project Manager immediately
  - Dry out any water damaged materials as soon as possible
  - Build in strict accordance with designs and specifications
  - Immediately alert architects to designs that may allow water intrusion or moisture accumulation
  - Question “conceptual only,” inadequate architectural detailing or outright improper building plans
- ❑ During the design phase, carefully review the details with specific attention to ensure an impermeable envelope.
- ❑ Consult an envelope engineer on geometrically complex buildings for a third party opinion on the water tightness of the envelope.
- ❑ On a renovation or addition, carefully survey the existing building before construction begins. Look for discoloration in finished surfaces or a musty smell. It is possible that a pre-existing mold problem can become the contractor’s problem once construction begins.
- ❑ Develop the project schedule with envelope construction completion as a predecessor to installation of finishes. This may be impossible on some projects; if so, have a detailed weather protection plan for all areas of exposure and establish a sufficient budget to implement the plan.
- ❑ Establish a partnering program with the owner and promote a peer review for the mechanical system and the building envelope designs.
- ❑ Carefully document any recommended changes to the Architect of Record. On standard Owner-Architect-Contractor project delivery methods, the Architect’s approval must be obtained. In the event the recommendation is rejected, reiterate the recommendation in writing, copy the owner and file it.
- ❑ Consult manufactures or moisture critical products to confirm the product’s application and recommend standard details, and provide preferred installers.



- ❑ Delivery of interior materials (e.g. dry wall, paneling, ceiling tiles, framing lumber):
  - Schedule so materials will arrive after exterior of building has been sealed
  - Provide for dry storage of materials-off ground away from moisture sources
  - Minimize storage time
  - Plastic sheeting or tarps used to cover materials are secured loosely to allow air circulation
- ❑ Pre-arrange for drying equipment
  - Fans
  - Dehumidifiers
  - Wet-Dry vacuums
  - “Super sucker” trucks

## Ongoing Construction Checks

- ❑ All materials inspected upon delivery for pre-existing mold contamination
- ❑ Interior materials installed in dry condition-per manufacturers’ specifications
- ❑ All water services (including fire sprinklers) and waste lines checked for:
  - Proper installation
  - Connections properly made and checked for leakage
  - Water lines ( particularly chilled water) properly insulated
  - Have multiple inspectors for filling or hydro test of sprinklers
- ❑ All building penetrations properly installed and checked for leakage:
  - Doors
  - Windows
  - Balconies and decks
  - Roof membranes – lapping at corners and joints
  - Ventilation/exhaust ducts
- ❑ All tears, openings or punctures in vapor barriers have been repaired
- ❑ All flashing and caulking checked for proper lapping and application
- ❑ All roof drains drain away from the foundation
- ❑ Roof drains properly supported and braced for large volume storms
- ❑ All moisture-generating equipment vented outdoors
- ❑ Surrounding ground sloping away from foundation
- ❑ Proper ventilation to attics, crawl spaces or other enclosed areas
- ❑ HVAC system
  - Correct filters properly installed-ASHRAE Dust Spot Efficiency per specifications, no filters missing or misaligned
  - Drip pan for cooling coils drains properly

- No insulation on interior of ventilation ducts – bare, galvanized sheet metal preferred
  - All duct joints sealed
  - The system is cleaned and commissioned. Third party certification of HVAC (test and balance report). The American Society of Heating Refrigerating and Air Conditioning Engineers has published a good practice commissioning procedure (ASHRAE Guide #1).
- Documentation of critical installations, including photographs
  - Use EIFS installers that follow performance standards, specifications, and methods of application guidelines from the EIFS Industry Members Association
  - Perform interim inspections; invite the Architect, Envelop Engineer, Mechanical Engineer, manufacturer's representatives to inspect for mold related issues
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## Post Construction Checks

- Have manufactures inspect installations for warrantee purposes
- Facility owner briefed on their responsibilities to prevent mold growth
- Fix leaky plumbing and leaks in the building envelope as soon as possible
- Watch for condensation and wet spots. Fix source(s) of moisture problem(s) as soon as possible
- Prevent moisture due to condensation by increasing surface temperature or reducing the moisture level in air (humidity). To increase surface temperature, insulate or increase air circulation. To reduce the moisture level in air, repair leaks, increase ventilation (if outside air is cold and dry), or dehumidify (if outdoor air is warm and humid)
- Keep heating, ventilation and air conditioning (HVAC) drip pans clean, flowing properly and unobstructed
- Vent moisture-generating appliances, such as dryers, to the outside when possible
- Maintain low indoor humidity, below 60 percent relative humidity (RH), ideally 30-50 percent, if possible
- Perform regular building/HVAC inspections and maintenance as scheduled
- Install and maintain proper air filters
- Clean and dry wet or damp spots within 48 hours
- Don't let foundations stay wet. Provide drainage and slop the ground away from the foundation
- Ensure new building penetrations are properly sealed
- Landscape watering system does not spray building foundation

- Final visual inspection of:
  - Pipe chases
  - Utility tunnels
  - Areas above drop ceiling that are exposed to water or waste lines or that are directly below roof

## Appendix 2 - Inspection Checklist

### Water Loss and Mold-Contaminated Building Materials

Inspection completed by: \_\_\_\_\_ Date of inspection: \_\_\_\_\_

Reason for Inspection: \_\_\_\_\_

#### Instructions:

When inspecting the building systems and materials outlined below, look for signs of moisture, sweating, icing, water damage, and/or mold growth. "Yes" means a problem was observed. Note your observations in the comment section on back and complete an "Incident Report Form." "No" means that no signs of water/moisture or mold growth were present. "NA" means not applicable. Forward completed form to Main Office.

Yes	No	NA		Yes	No	NA		
<b>Stored Materials</b>								
			GWB				Lumber	
			Flooring				Ceiling tiles	
			Sheathing				Paneling	
			Trim				Insulating materials	
			Other:				Other:	
<b>General structural</b> – especially penetrations								
			Attics				Ceilings	
			Windows (skylights)				Walls	
			Flooring				Vapor barrier (corners, stud clips)	
			Paint failure				Water stains?	
<b>Plumbing/piping</b>								
			Plumbing/piping lines				Pathways	
			Obstructed drain lines				Adjacent building materials	
			Insulation (especially cold water pipes)				Condensate pans overflowing missing	
<b>HVAC system</b> Inspect unit exteriors and interiors. Check for improper drainage. Is there physical and installation damage? Inspect the building materials surrounding them.								
			Air-handling units				Chillers	
			Cooling coils				Fans	
			Interior/exterior insulation				Drain pans	
			Seals around ductwork				Return air plenums	
			Fresh air intakes				Distribution plenums	
			Diffusers and air-filters Where possible, shine a flashlight into the diffusers and behind air-filters to inspect the ductwork and buckets behind them.					

**Comments:**

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# Appendix 3 - Incident Report Form

## Water Loss and Mold-Contaminated Building Materials

**Instructions:**

Complete a separate incident report form for each water loss and/or area of mold growth found within the building. Complete the form to the best of your knowledge and then forward it to Main Office. Whenever possible, photograph affected areas and forward them as well.

Completed by: \_\_\_\_\_ Date Completed: \_\_\_\_\_

Building location and area(s) found to be affected: \_\_\_\_\_  
\_\_\_\_\_

Describe what was found (water staining, suspected mold growth, etc.) and where: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Suspected cause of water damage and/or mold growth observed: \_\_\_\_\_  
\_\_\_\_\_

Are building materials still wet? If so, where and to what extent: \_\_\_\_\_  
\_\_\_\_\_

Is gray or black water present? \_\_\_\_\_

Is standing water present? If so, how much water is present: \_\_\_\_\_

Estimated surface area of the building materials wetted or having mold growth present: \_\_\_\_\_  
\_\_\_\_\_

Date water loss and/or mold growth was discovered: \_\_\_\_\_

Estimated length of time that the water loss and/or mold growth has been present: \_\_\_\_\_

Corrective actions, if any, taken to this point: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Planned actions, if any, at this point: \_\_\_\_\_  
\_\_\_\_\_

Additional comments/observations: \_\_\_\_\_  
\_\_\_\_\_

<b>Main Office Use Only:</b>	Assigned Incident Report Number:	
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## Appendix 4 - Follow-up Tracking Form

### Water Loss and Mold-Contaminated Building Materials

**Instructions:**

Project Superintendent to complete this form is to track the response activity to a given incident. Complete a follow-up tracking form for each incident report submitted. This sheet and all relevant reports and documentation should be put into in a case file and retained by Main Office.

Tracking form for **Incident Report Number:** \_\_\_\_\_  
Completed by: \_\_\_\_\_  
Date follow-up activities were completed: \_\_\_\_\_

**Initial Investigation of damage**

Log events, including date and time, taken to further investigate the extent of the damage present.

If an external consultant was used to investigate the extent of the loss, what company performed the assessment and when?

Based on the initial assessment, briefly summarize the recommended corrective actions.

**Water Extraction (applicable only if the loss was caught within 48 hours)**

Describe the dry out process performed, who performed it and when:

Who performed the post dry out assessment for mold contamination and when?

Brief summarize the results of the post dry out assessment:

**Moisture Source Determination**

What caused the water loss to occur?

What actions were taken to correct the source of water/moisture?

If the source was not positively identified, what follow-up inspection activities have been put in place to track the problem area(s)?



**Mold Remediation**

Briefly describe the extent of mold contamination remediated:

Who performed the remediation and when:

Who performed the post remediation clearance assessment(s) and when?

Brief summarize the results of the clearance assessment(s):

**Corrective Actions Taken to Prevent this Occurrence in the Future and Additional Follow-up Notes**

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## Appendix 5 - Prevention and Response Training

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### Roles and Responsibilities

#### Principals

The Principals, (Josh Pepperd, Jed Shandy, and Luke Blomfield) will:

- Implement the overall Mold Plan.
- Fund/budget for the Mold Plan.
- Oversee and administer the Mold Plan at the executive level.
- Receive and respond to complaints/concerns regarding water, moisture, or mold-growth conditions at a construction project site.
- Communicate major water losses or mold contamination associated with our construction activities with other Principals and owners/tenants.
- Review subcontractors' written reports on water extraction, mold investigations, remediation and follow-up inspections.

#### Project Manager

The Project Manager will:

- Oversee and administer the Mold Plan at the jobsite.
- Receive and respond to complaints/concerns regarding water, moisture, or mold-growth conditions at a construction project site.
- Conduct onsite inspections following complaints/concerns of possible water, moisture, or mold-growth conditions at a construction project site.
- Communicate water losses or mold contamination (and any planned response/remediation) associated with our construction activities with the Principal in Charge and owners/tenants.
- Determine the level of response of an observed moisture/water or mold-growth condition (in conjunction with the Principal in Charge).
- Contract emergency water extraction, mold remediation, and water release/mold investigation services for appropriate events which Davis Constructors owns responsibility.
- Update the Principal in Charge and owners/tenants on the status of any major, significant and disruptive water extraction, mold remediation, and mold investigation activities.
- Receive and review all written reports on water extraction, mold remediation and mold investigation.

## Project Superintendent

The Project Superintendent will:

- Ensure that preventive maintenance is carried out minimize the likelihood of a water loss associated with all construction activities, including any equipment installed or maintained by Davis Constructors employees and subcontractors.
- Protect porous building materials to be installed by Davis Constructors employees or subcontractors from precipitous weather exposure (morning dew, rain, sleet, snow) prior to and during installation.
- Inspect jobsite for mold contamination and moisture/water, and forward the “Inspection Checklist” (Appendix 2) to Project & Safety Administrators (Main Office).
- Ensure that damp/wet building materials are dried thoroughly and inspected for signs of moisture, water damage and mold growth prior to installation.
- Ensure that no mold-contaminated or damp materials (especially porous materials such as wood or drywall) are installed.
- Receive complaints/concerns regarding water, moisture, or mold-growth conditions at a construction project site, and notifying the Project Manager about all such incidents.
- Conduct onsite inspections following complaints/concerns of possible moisture, water, or mold-growth conditions at the project site (in conjunction with the Project Manager).
- Document complaints/concerns of water, moisture, or mold-growth conditions at a construction project site with a “Incident Report Form,” (Appendix 3) and forward to the Project Manager and Main Office.
- Lead jobsite emergency water extraction, mold remediation, and water release/mold investigation services.
- Receive and review written reports on water extraction, mold remediation and mold investigation activities (along with the Project Manager and the Principal in Charge) and ensure copies of these reports are forwarded along with an “Follow-up Tracking Form” (Appendix 4) to Main Office.
- Ensure that a “Follow-up Tracking Form” (appendix 4) is completed following any incident which requires any remedial action, and forward to Main Office.

## Safety Staff

The Safety Staff will:

- Develop Davis Constructors jobsite employee Mold Plan training program.
- Ensure our employee Mold Plan awareness and response training is conducted.
- Ensure that safety and health procedures, including maintenance of employee mold exposure records, are in place for personnel responding under the Mold Plan.
- Under OSHA HAZCOM program, ensuring that the hazards of working with mold (including any monitoring/sampling data documenting exposure levels) are communicated to all workers.

- Review and update the Mold Plan annually to ensure that procedures are current and effective (along with Principals).
- Retain and maintain Incident documents (Appendices 3 and 4).
- Retain and maintain Incident Log (Appendix 6 of Corporate Mold Plan).

## Project Administration Staff

The administrative staff at the Main Office will:

- Retain and maintain Inspection documents (Appendix 2) in project files.
- Retaining and maintain Incident documents (Appendices 3 and 4) in project files (along with Safety Staff).

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## Documentation/Record Keeping

Proper documentation and record keeping are vital to the success of the Mold Plan. Checklists and forms have been developed to document inspections and moisture/water or mold-growth incident reports and responses. A description of each form's intended use, how long the document should be retained, and by whom follows below.

### Materials Inspection Checklist

Periodic inspections to prevent potential water losses and mold-contaminated building materials should be documented using the "Water Loss and Mold-Contaminated Building Materials Inspection Checklist" (Appendix 2). The Inspection Checklist is:

- Used by the Project Superintendent to methodically evaluate building materials, structures, and buildings under renovation or construction by Davis Constructors that may have been affected by moisture, water damage and/or mold growth.
- Maintained in the Davis Constructors Project File for three (3) years following the completion of the construction project.

### Incident Report Form

When a moisture/water loss or mold-growth incident is discovered and reported to the Project Superintendent, a specific report of the incident should be documented using the "Water Loss and Mold-Contaminated Building Materials Incident Report Form" provided in Appendix 3.

The Incident Report Form is:

- Completed by the Project Superintendent once a moisture/water or mold-growth condition associated with construction activities by Davis Constructors is discovered or reported. It is used to investigate and document the extent and cause of the damage present. Whenever possible, attach photographs of affected building materials or structures to the form.
- Used to document any corrective or emergency actions necessary to remove water and/or damp/wet building materials.
- Forwarded to the Project Manager, the Principal in Charge and Main Office immediately upon completion.

- Retained in the Davis Constructors Project File along with any associated photographs for a maximum of ten (10) years.

### **Incident Report Log**

Moisture/water loss and/or mold-growth condition incidents also should be recorded into the “Water Loss and Mold-Contaminated Building Materials Incident Report Log” provided in Appendix 6 of the Corporate Mold Plan. This Incident Report Log is:

- Used by Safety Staff to track all reports of moisture/water or mold growth incidents over time. The log is to be reviewed by and made readily available to Principals.
- Retained in the Davis Constructors Project Files.

### **Follow-up Tracking Form**

Any water extraction or mold remediation activities required due to an incident should be documented using the “Water Loss and Mold-Contaminated Building Materials Follow-up Tracking Form” provided in Appendix 4. The Follow-up Tracking Form is:

- Used by the Project Superintendent to document water extraction, mold remediation and/or mold inspection activities taken in response to a report of a moisture/water or mold growth condition.
- Used to document the outcomes of water extraction, mold remediation and/or mold inspection activities. The Project Superintendent should attach all subcontractor reports to the Follow-up Tracking Form. Copies shall be provided to Main Office.
- Retained in the Davis Constructors Project File along with all associated subcontractor reports.

# Appendix 6 - Incident Report Log

## Water Loss and Mold-Contaminated Building Materials

Assigned incident report number	Date of incident report	Building and area(s) affected	Brief description of the loss