

# Lesson 8

## The Repair Process

Identifying Damage

Repair vs Replace



## Structural Evaluation Of Farm Buildings

<https://securservercdn.net/45.40.150.47/65e.a56.myftpupload.com/wp-content/uploads/2020/01/Farm-Buildings-Structural-Evaluation-2020-01-09-1.pdf>

## Residential House Repairs

<https://securservercdn.net/45.40.150.47/65e.a56.myftpupload.com/wp-content/uploads/2020/02/Residential-House-Repairs-2020-02-09.pdf>

## The Simplified Process of Building Repair

<https://securservercdn.net/45.40.150.47/65e.a56.myftpupload.com/wp-content/uploads/2020/02/Simplified-Process-of-Building-Repair-2020-02-10.pdf>

## Codes – Standards – Common Sense

<https://securservercdn.net/45.40.150.47/65e.a56.myftpupload.com/wp-content/uploads/2020/11/Codes-Standards-Common-Sense-2020-11-19.pdf>



# What Condition is the Building?

- Is the building stout
- Was it built strong
- Is it fairly new construction
- Was everything done right in the past
- Was it built right in the first place
- Was it built weak
- Is it old construction
- Was everything done wrong in the past



# Typical Repair Process

1. An incident occurs (fire or storm, etc.)
2. The owner calls the insurance company.
3. The adjuster conducts an initial investigation.
4. The adjuster may call in first response Restoration Contractor to provide emergency work such as temporary shoring and stabilization, tarping, cleanup of wet debris, limited demolition, etc.



# Typical Repair Process

5. The adjuster does a more in-depth evaluation of the claim and determines course of action.
6. Adjuster may call a forensic engineer to
  - a. determine the cause and extent of damages
  - b. offer repair recommendations
7. Engineer visits the site
  - a. determines cause and extent of damage
  - b. evaluates existing conditions
  - c. provides scope of repairs
  - d. addresses code upgrade issues
  - e. addresses safety hazards



# Typical Repair Process

8. Adjuster takes engineer's report,
  - a. determines coverage
  - b. prepares repair cost estimates
9. Contractor provides estimate(s)
10. Contractor is retained for repairs by owner
11. Owner adds betterments to repairs
12. Contractor submits plans to building department.



# Typical Repair Process

13. Building department reviews the plans or scope of work and approves or communicates additional requirement.
14. An (2<sup>nd</sup>) engineer may be retained by the owner or contractor to address building department items and/or additional work.
15. This engineer does his design drawings incorporating the owner betterments, the building department issues, and code upgrades.



# Typical Repair Process

16. The building may or may not remain occupied.
17. Repairs may begin.
18. Additional problems may appear as things are uncovered.
19. Costs and schedules may increase.
20. Project is completed.





# The Ultimate Goal of the Professional Engineer

- Safety – Engineering must uphold the safety of the general public above all.
- Restore the building to a pre-loss condition. No more, no less.
- Ensure the repair is feasible and constructible.
- Identify any code upgrades which may be required.
- Identify any betterments which are lumped into the loss.
- Ensure that the design is cost effective.



1. The code should be followed if possible.
2. Not everything is spelt out in the code, especially in the case of repairs.
3. Things were built before code language what adopted.
4. Knowledge is needed to know why something is in the code.
5. Wisdom is needed to apply the knowledge to a specific situation. (Code Officials use reasoning when things are impractical)
6. Experience is needed to correctly build on the past, knowing what works to protect health, life, and property.

