

FACILITY CONDITION ASSESSMENT

SIMPLE

TO

COMPLEX

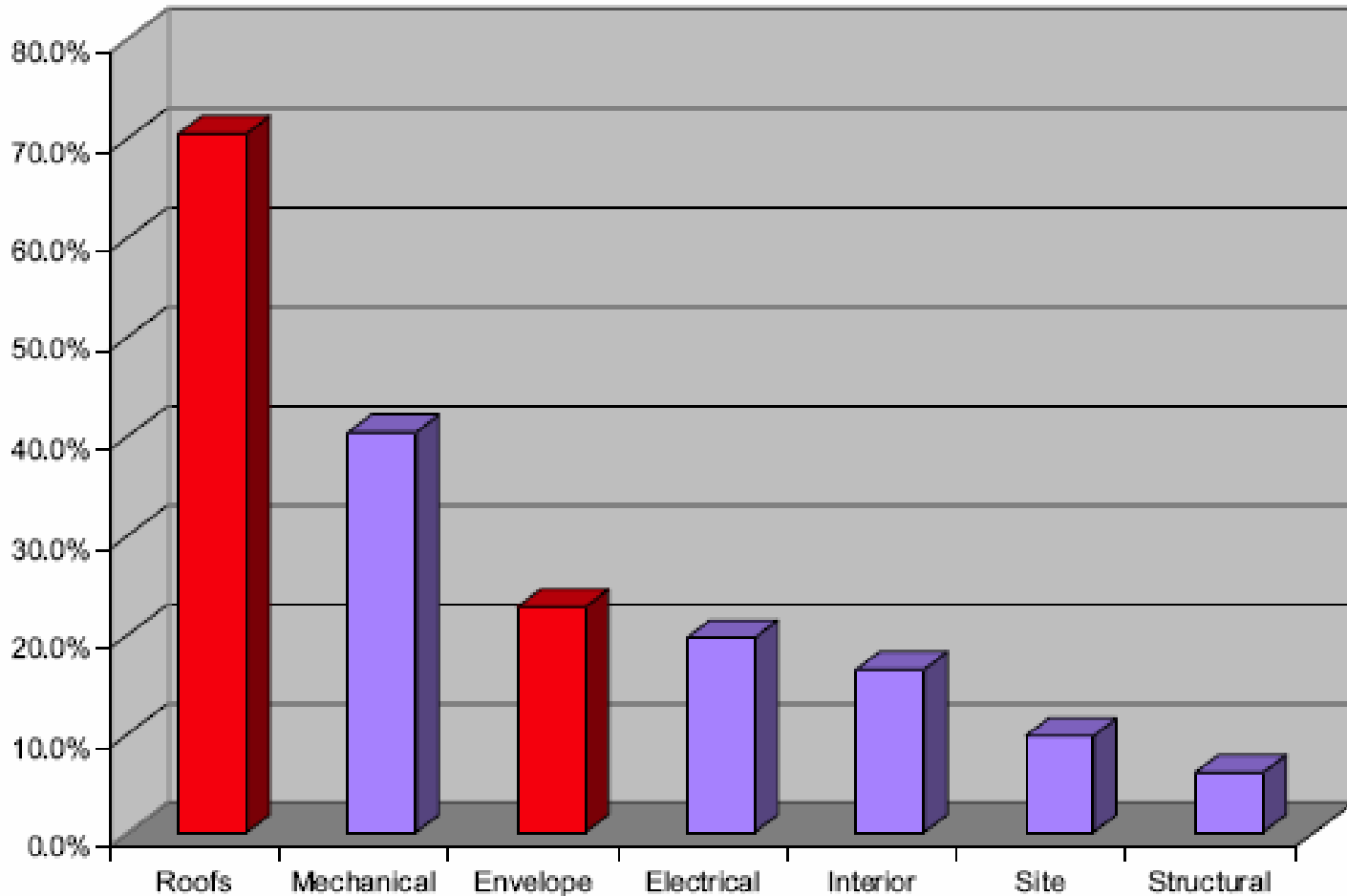
WHY?

- To maintain the building envelope in a manner that promotes operational safety, occupant health, environmental protection and compliance, property preservation, and cost-effectiveness while maximizing useful life over a defined time.
- **TO SAVE MONEY!!!!!!!**

WHY?

- **Inspection** = Budget = Plan = ONLY NECESSARY Work = Increased Useful Life + Decreased Costs Over Time
- **No Inspection** = No Budget = No Plan = MYSTERY Work = Decreased Useful Life + Increased Costs Over Time
- IT IS A CONSTANT CIRCLE
 - Regular Inspection

WHY?



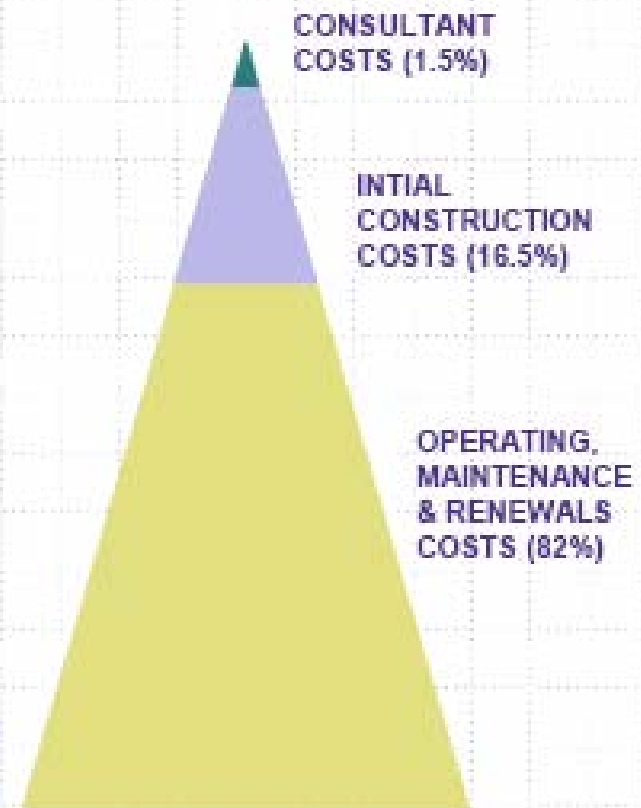
Building Components that Fail the Most

WHY?

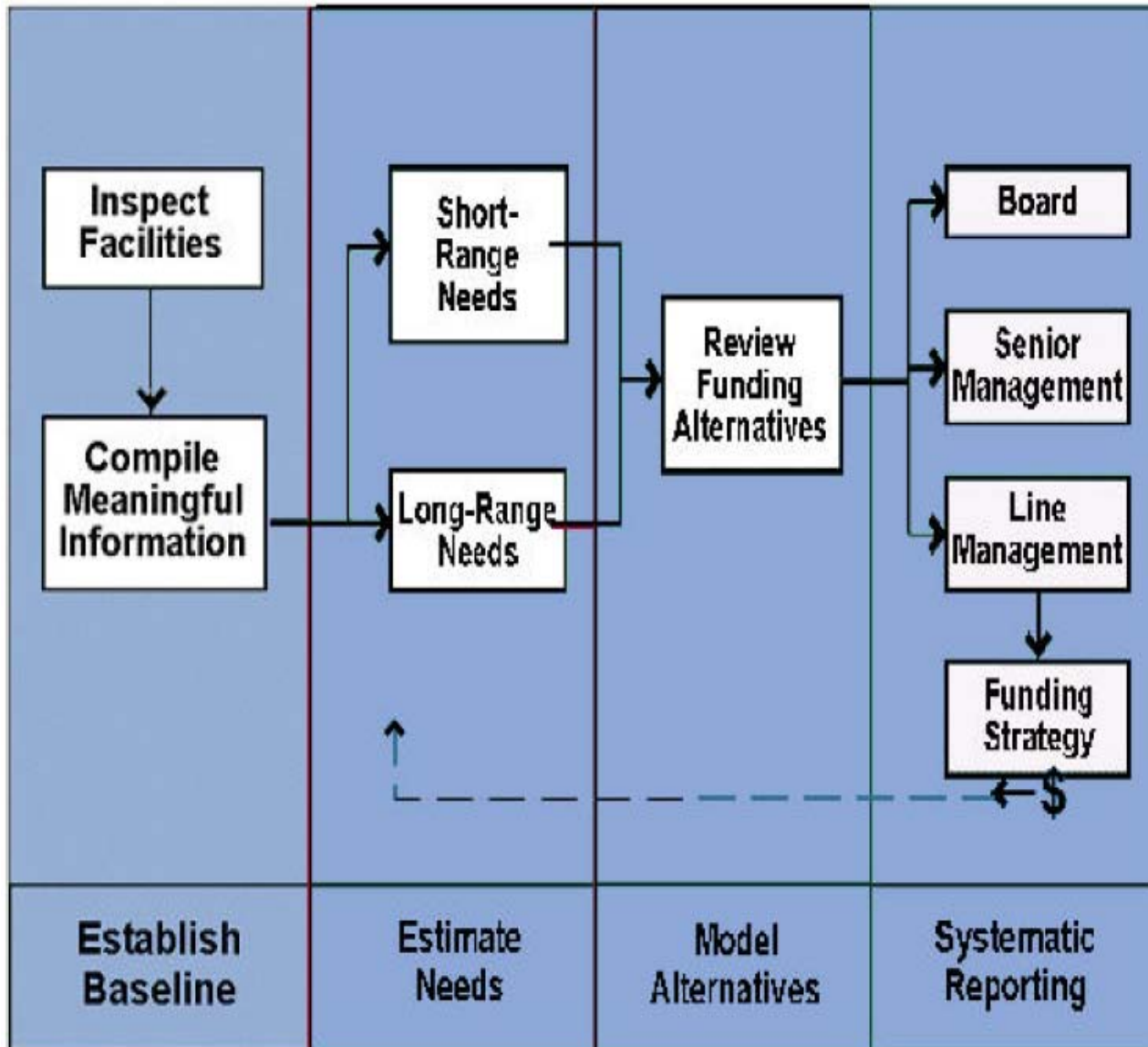
BUILDING COSTS

How is Money Spent on Buildings?

- Initial Construction
 - Cost to construct the building
- Operations & Maintenance
 - Ongoing day to day costs including energy, cleaning and maintenance
 - Predictable, does not change significantly from year to year
- Renewals
 - Costs for replacement or to renew worn out items
 - Costs are larger in magnitude, occur sporadically
- Adaption
 - Costs to meet evolving needs of users or regulations



WHAT AND HOW



WHAT AND HOW

- ASTM DUE DILIGENCE PROPERTY CONDITION ASSESSMENTS The [ASTM E-2018](#) standards provides guidelines for performing a baseline (PCA) commercial property condition assessments and completing a (PCR) property condition report.
- The (PCA) property condition assessment is to observe and report, to the extent feasible, on the physical condition of the subject property and consists of:
 - 1. Document review, interview of maintenance staff, vendors and local building departments.
 - 2. Walk-through survey
 - 3. Preparation of opinions and probable costs to remedy physical deficiencies
 - 4. Property condition report (PCR) per ASTM standards
- The assessment includes physical deficiencies defined as "the presence of conspicuous defects or material deferred maintenance of a subject property's material systems, components or equipment observed during the field observer's walk-through survey.
- The stands "specifically excludes deficiencies that may be remedied with routine maintenance, miscellaneous minor repairs, normal operating maintenance, etc and excludes minimis conditions that generally do not present material physical deficiencies".
- NOTE: The ASTM standards state the following regarding deviations form the standard:
- "This guide also recognizes that there are varying levels of property condition assessment and due diligence that can be exercised that are both more and less comprehensive that this guide, and that may be appropriate to meet the objective of the user. Users should consider their requirements, the purpose that the PCA is to serve, and their risk tolerance level before selecting the consultant and the level of due diligence to be exercised by the consultant".
- This provision allows you to specify deviations that meet your individual needs and building typ. These deviations would be mutually agreed upon and clearly stated in the engagement documents and final report.
- These deviation may reduce the scope of the assessment due to financial and/or time constraints or exceed the assessment standards and include dismantling and operation of readily accessible key systems like HVAC, maintenance suggestions, long term replacement schedules and cost to remedy defects with no minimum cost threshold.
- Property condition assessments and commercial property inspections include the condition, life expectancy and repair/replacement budgets for the roof systems, electrical services, common plumbing including hot water heaters, heating units, HVAC units interior/exterior walls, floors, windows and finished areas along with the grounds and surface lots adjacent to the building. When possible the report with include interviews with management and maintenance staff, providers of maintenance contracts on key equipment.

FACILITY CONDITION ASSESSMENT

1. SITE CHARACTERISTICS
2. STRUCTURE
3. BASEMENT/CRAWL SPACE WATER ENTRY
4. VENTILATION
5. HEATING
6. CENTRAL AIR CONDITIONING
7. ENERGY EFFICIENCY
8. PLUMBING SYSTEMS
9. ELECTRICAL
10. INTERIOR
11. EXTERIOR
12. ROOFING
13. CHIMNEYS
14. SAFETY
15. ENVIRONMENTAL
16. RELATED STRUCTURES / COMPONENTS/FACILITIES

EXTERIOR INSPECTION REPORT

Building _____ Address _____

Owner _____

Age of Building _____ Maintenance Priority: A B C No. of Stores _____

Rental Rates: Office Area _____ Store Area _____ Basement Area _____

Report Submitted By _____ Date _____

Items	Character and Condition	Needs	Estimated Expense Involved
Roofs			
1. Type			
2. Flashing			
3. Surface (Valleys)			
4. Drainage			
5. Vents			
6. Chimney			
7. Misc. Machinery			
8. Misc. Machinery			
9. Misc. Machinery			
10. Other Roof Structures			
Walls—North			
11. Type			
12. Base			
13. Top			
14. Tuck Pointing			
15. Cracks/Gaps			
16. Join of Wall/Frames			
17. Buckling			
18. Stone Sills			
19. Terra Cotta			
20. Metal Trim			
21. Projections			
22. Coping			
23. Glass			



International Standards of Practice for Inspecting Commercial Properties

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ANCILLARY DOCUMENTS:

Minnesota State Schools

Building Envelope

WHAT IS THE BUILDING ENVELOPE?

- **The building envelope** includes the below grade basement walls, foundation and floor slab (although for structural consideration these are considered part of the building's structural system) so that the envelope includes everything that separates the interior of a building from the outdoor environment. The connection of all the nonstructural elements to the building structure is also included. Finally, it is recognized that the exterior envelope plays a major role in determining the aesthetic quality of the building exterior, in its form color, texture and cultural associations.
- Building Envelope Systems are many times defined as:
 - [Below Grade](#) construction
 - [Exterior Walls](#), both structural (providing support for the building) and nonstructural (supported by the building structure)
 - [Fenestration](#), both windows and metal/glass curtain walls
 - [Roofs](#), both low- and steep-slope
 - [Atria](#).
- The design and operation of the envelope is very complex and many factors have to be evaluated and balanced to ensure the desired levels of thermal, acoustic and visual comfort together with safety, accessibility and aesthetic excellence. The envelope plays a role in almost every building function, either directly or indirectly in its relationship to other building systems.

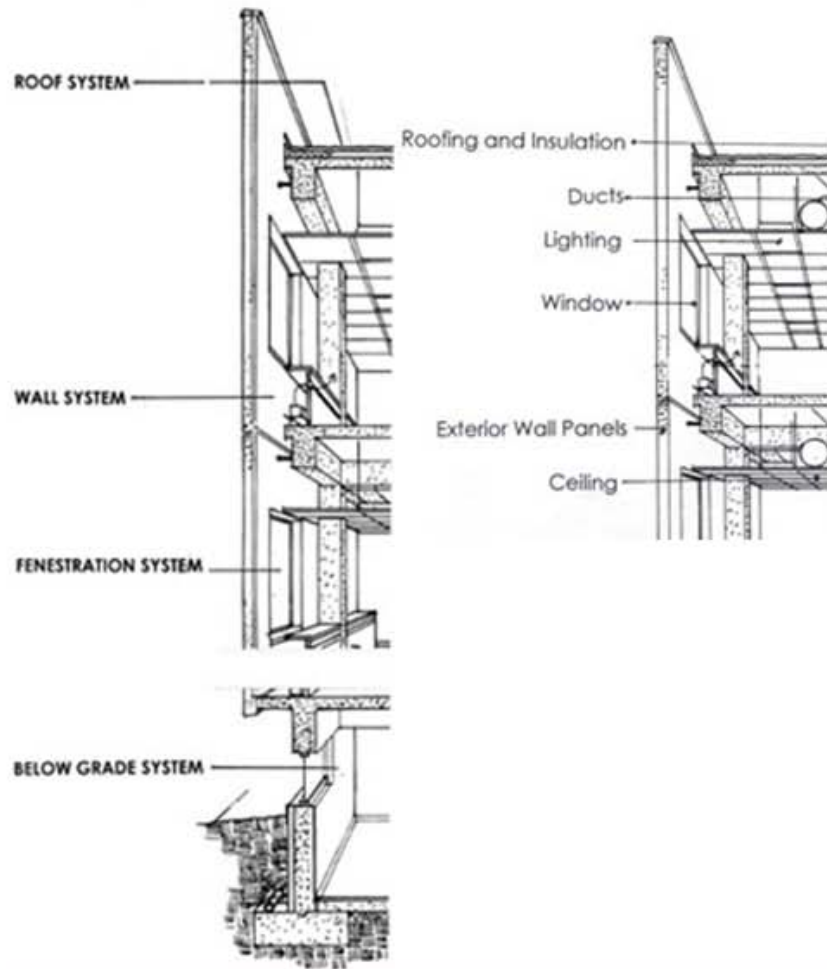


Figure 1. The building envelope systems: *Left*, the 4 systems; *Right*, a portion of the envelope showing some of the other systems that integrate with the envelope.

SAMPLES

- Building Inspection Report
- FCA Systems Inspection
- InterNACHI Commercial
- MN State Schools Building Envelope
- Physical Condition Checklist–Excel Spreadsheet
- Roof Inspection Checklist