ONYX PLATFORM

# Building Condition Assessment Platform

## Director's Guide to End-to-End Operations

# Welcome to Onyx

Onyx is a comprehensive building condition assessment platform designed to help organizations systematically evaluate, track, and manage the condition of their building portfolios for capital planning. This guide will walk you through the entire assessment process, from initial setup to final reporting.

# Platform Overview

**The Onyx platform consists of several key modules:**

**• Buildings Management:** Add and manage your building portfolio

**• Assessment Workflow:** Two-phase assessment process (Pre-assessment and Field Assessment)

**• Reports & Analytics:** Generate comprehensive reports and track FCI trends

**• Team Management:** Manage assessors and assign responsibilities

# The Assessment Process

The Onyx assessment process follows a systematic two-phase approach to ensure thorough and accurate building condition evaluations:

## Phase 1: Pre-Assessment

**What is Pre-Assessment?**

Pre-assessment is the planning and preparation phase before conducting the actual field inspection. This critical phase ensures that assessors have all necessary information, permissions, and resources before visiting the building.

**Pre-Assessment Checklist includes:**

**✓ Building Plans and Drawings -** Architectural, structural, and MEP drawings are available and reviewed

**✓ Access Permissions -** All necessary permissions and access arrangements are confirmed

**✓ Safety Equipment -** Personal protective equipment and safety gear are ready

**✓ Previous Assessment Reports -** Historical assessment data and maintenance records are gathered

**✓ Key Stakeholders Identified -** Building management and maintenance staff contacts are established

**✓ Weather Conditions Checked -** Weather forecast reviewed for assessment day planning

**✓ Emergency Procedures -** Emergency contacts and procedures are documented

**✓ Equipment Calibration -** All measurement and testing equipment is calibrated and functional

**Element Selection:**

During pre-assessment, you must select which building elements will be evaluated. Onyx uses the Uniformat II classification system, which organizes building components into logical groups such as:

• A10 - Foundations• B10 - Superstructure• B20 - Exterior Enclosure• C10 - Interior Construction• D20 - Plumbing• D30 - HVAC• D40 - Fire Protection• D50 - Electrical

## Phase 2: Field Assessment

**What is Field Assessment?**

Field assessment is the on-site inspection phase where assessors physically evaluate each building element selected during pre-assessment. This hands-on evaluation determines the actual condition of building components.

**For each element, assessors will:**

**1. Assign a Condition Rating (1-5 scale):**

• 5 - Excellent: Like new condition • 4 - Good: Minor wear, fully functional • 3 - Fair: Moderate wear, functional but needs attention • 2 - Poor: Significant deterioration, needs major repair • 1 - Failed: Non-functional, needs replacement

**2. Document Deficiencies:** Record specific issues, damage, or maintenance needs

**3. Capture Photographic Evidence:** Take photos to document conditions

**4. Add Notes:** Provide additional context or recommendations

**5. Indicate the deficiency category** (i.e Life safety & code compliance, critical systems and operational continuity, Energy efficiency & sustainability, Asset life cycle & deferred maintenance, user experience and aesthetic enhancement, Equity & accessibility, Other)

# Understanding FCI (Facility Condition Index)

**What is FCI?**

The Facility Condition Index (FCI) is a industry-standard metric that measures the relative condition of a building. It provides a numerical indicator of building health that helps prioritize maintenance and capital planning decisions.

**How FCI is Calculated:**

**FCI = Total Deficiency Cost ÷ Current Replacement Value**

**Where:**

**• Total Deficiency Cost =** Sum of all repair/replacement costs for elements rated below acceptable condition

**• Current Replacement Value =** Building Size (sq ft) × Cost per sq ft for building type

**FCI Interpretation:**

**~~• 0.00 - 0.05:~~** ~~Good Condition - Routine maintenance only~~

**~~• 0.05 - 0.10:~~** ~~Fair Condition - Requires attention~~

**~~• 0.10 - 0.30:~~** ~~Poor Condition - Needs significant investment~~

**~~• > 0.30:~~** ~~Critical Condition - Major renovation or replacement needed~~

## 0.00-0.1 Excellent condition, representative of new building

* 0.1-0.4 Good condition, light investment needed
* 0.5-0.7 Fair condition, need strong plan for renovation
* 0.7-1 Consider demolition as cost of repair/replacement is at or close to 100% of new build.

## FCI Calculation Example

Building: Corporate Office BuildingSize: 50,000 sq ftBuilding Type: Office ($350/sq ft)Current Replacement Value: 50,000 × $350 = $17,500,000

Deficiencies Found:• Roof replacement needed: $500,000• HVAC system repairs: $250,000• Electrical upgrades: $100,000• Total Deficiency Cost: $850,000

**FCI = $850,000 ÷ $17,500,000 = 0.049**

Result: FCI of 0.049 indicates the building is in **Good Condition**

# Quick Start Guide

**Step 1: Add a Building**

Navigate to Buildings → New Building → Enter building details → Save

**Step 2: Start an Assessment**

Go to Assessments → New Assessment → Select building → Create Assessment

**Step 3: Complete Pre-Assessment**

Fill checklist → Select building elements → Save and Continue

**Step 4: Conduct Field Assessment**

Rate each element → Document deficiencies → Add photos → Complete Assessment

**Step 5: Review Results**

View FCI score → Generate reports → Plan maintenance activities/Capital plan

# Best Practices

**1. Consistency is Key:** Ensure all assessors use the same rating criteria

**2. Document Everything:** Photos and detailed notes support future decision-making

**3. Regular Assessments:** Conduct assessments annually or bi-annually

**4. Track Trends:** Monitor FCI changes over time to identify deterioration patterns

**5. Prioritize Safety:** Always complete safety checks before field assessments

# Need Help?

For technical support or questions about the Onyx platform:• Email: daniel@onyxplatform.com• Documentation: docs.onyxplatform.com• Training Videos: training.onyxplatform.com

***Welcome to Onyx - Your partner in building condition assessment!***