



Capabilities and Services Brochure

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The Firm

For over 25 years TechniScan, Inc. has provided specialized consulting, diagnostic, monitoring and design services to the building and roofing industries. TechniScan is built on a foundation of architectural experience in the design and renovation of building systems.

TechniScan has the unique ability, through the use of non-destructive diagnostic procedures, to provide detailed analysis of roofing systems, curtain walls, windows and parking structures. Our team of highly qualified and specialized professional architects provide the client with detailed information such as analysis of existing general conditions, recommended actions and budgetary cost estimates. This information can then be delivered via a state-of-the-art software system that provides cash flow and life cycle costing of building components to enable sound financial decisions to be made.

Development of specifications for repair or replacement of building components by our professional staff can ensure proper design and competitive bids from qualified contractors in the designated field. TechniScan acts as the property owner's representative and liaison through our quality assurance monitoring during construction. Through our professional facilities assessment, convenient and concise delivery of information, development of complete specifications and quality assurance, our team enables the facility manager or owner to be assured that expenditures are necessary and effective.

- ▶ Facility Condition Assessments
- ▶ Roof Condition Surveys
- ▶ Specification & Design Services
- ▶ Quality Assurance Monitoring
- ▶ Diagnostic Consulting Services
- ▶ Curtain Wall Investigations
- ▶ Site-Based Roof Administration
- ▶ Enterprise Roofing Management Programs

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Facility Condition Assessments

TechniScan's Facility/Property Condition Assessments are reports designed to give management the capital and maintenance cash flows and risk/liability information necessary to properly manage, buy or sell a property. The assessments can be tailored to the specific needs of a client's transaction schedule or budgetary cycles.

- ▶ Acquisition/Disposition Due Diligence Reports
- ▶ Capital Reserve Studies
- ▶ Preparation of long-range facility capital plans
- ▶ Multi-disciplinary:
 - ◆ Architectural
 - ◆ Civil
 - ◆ Structural
 - ◆ Mechanical
 - ◆ Electrical
 - ◆ Environmental
 - ◆ Compliance
 - ◆ Life/Safety
- ▶ ASTM E-2018 Compliant Reports
- ▶ Web-based reports in both HTML and PDF formats

The screenshots illustrate the following components of the report:

- Navigation Tree:** Shows sections from Executive Summary to Photos 1-27.
- Due Diligence Report Title Page:** Includes project name, location, and date.
- Table of Findings:**

Component	Item	Project Description	Year	Immediate Costs	Deferred Costs
4. Property Condition	Parking Areas	19,000 sq. ft. of original concrete paving remains unplaced to date.	2012		\$4,000
4.2 Structure	Structural Framing System	Steel columns in forklift traffic areas damaged. Repair and protect.	2000	5,000	
4.2 Structure	Wall Joint Sealants	Panel sealant joints are cracked and open in places.	2007	7,500	
4.2 Structure	Roof Type	Budget for ongoing maintenance.	2000	1,000	
4. Property Condition	Roof Type	Budget for ongoing maintenance.	2000	1,500	
- Budget Estimates Table:**

Item	Unit	Unit Price	Total
Structural Framing System	19 00 31	1.15	5,000,000
Wall Joint Sealants	19 20 31	1,875	4,200
Roof Type	3 15 12	1 yr	1,000,000
Roof Type	3 15 12	1 yr	1,000,000
Roof Type	3 15 12	1 yr	1,000,000
Roof Type	3 15 12	1 yr	1,700,000
Roof Type	19 00 31	1.15	200,000
Roof Type	19 00 31	1.15	500,000
- Text Sections:**
 - 1.4 Summary of Recommendations:** Discusses immediate and reserve repair/replacement matters.
 - 1.5 Budget Summary and Analysis:** Provides a summary of the budget.
- Photos:** Multiple photographs showing physical conditions of the facility, such as concrete paving and structural elements.

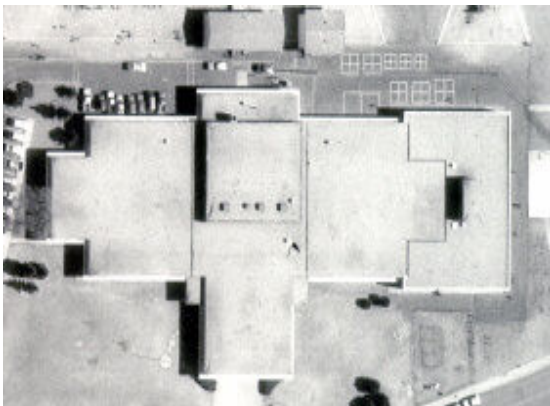
Roof Condition Surveys

Skilled professionals at TechniScan, Inc. can accurately diagnose roof problems through the use of non-destructive moisture scans, review of historical documents and visual examination of the roof system. Our Roof Condition Surveys include:

- ▶ Description and current performance of roof membrane system
- ▶ Photographic documentation
- ▶ Development of prioritized and phased repair/replacement programs
 - ◆ Recommended maintenance and/or remediation procedures
 - ◆ Projected remaining useful life and replacement cost
 - ◆ Budget estimates for 3-5 years
- ▶ RF-Dielectric, nuclear or infrared moisture scans (optional)
- ▶ Current roof plans (optional)
- ▶ Core tests (as needed)
- ▶ Web-based reports in both HTML and PDF formats

After targeted and thorough analysis of the roof surface, the information is presented in a written and / or electronic format which prioritizes maintenance, repair or roof replacement. Working closely with the owner / manager, other factors such as the criticality of the area covered by the roof can be weighed prior to development of any priority list.

With the help of TechniScan's professionals, one can realize maximum life cycles of current assets and be confident that the expenditures are valid and effective.



Core samples taken reveal information about the installed roof system, such as materials, design and condition.



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Quality Assurance Monitoring

TechniScan's qualified architects and roofing technicians make daily observations at the job site of the work in progress. They verify that the correct materials and application techniques meet the detail called out in the job specification.

- ▶ Pre-construction walk-through with contractors
- ▶ Periodic inspections and progress meetings to ensure conformance with schedule and specifications
- ▶ Written and photographic documentation of project progress
- ▶ Pay Application review and approval
- ▶ Development of punch list
- ▶ Follow-up of punch list for completion by contractor



Any deviation from proper construction or roofing applications can be prevented on the roof without job interruption or shut-down. Field sketches of any necessary change in details can be accomplished, as well as photographed, for "as built" drawings.

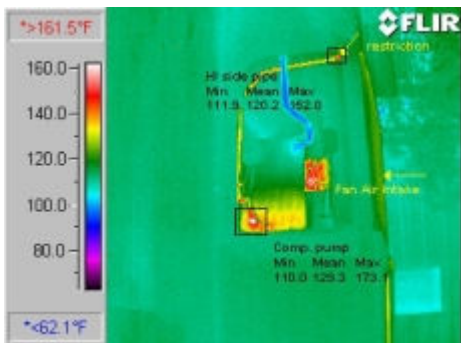
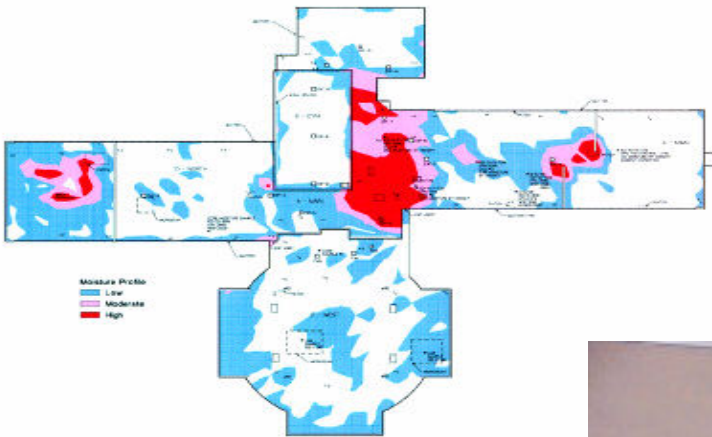
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Diagnostic Consulting Services

TechniScan utilizes three forms of non-destructive moisture-detecting technologies – Nuclear, RF-Dielectric and Infrared. Utilization of scanning technologies as a diagnostic tool accurately identifies problems which, through development of targeted scopes of work, can provide substantial cost savings.

- ▶ Non-Destructive Moisture Scanning Services:
 - ◆ RF-Dielectric moisture scans
 - ◆ Nuclear moisture scans
 - ◆ Infrared scans
- ▶ Remediation design and specifications
- ▶ Quality Assurance during reconstruction
- ▶ Expert testimony during any required litigation process
- ▶ Curtain wall, window, roof and other building envelope consulting services



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Curtain Wall Investigations

TechniScan is nationally known for its investigations of curtain wall systems of all types. Our extensive experience and state-of-the-art scanning technologies allow us to quickly determine the sources and root causes of moisture intrusion problems.



We can deliver diagnostics, remediation designs, and / or litigation support. We can provide quality assurance services during repair and reconstruction projects, ensuring that the required changes are correctly installed. Our licensed architects are also experienced expert witnesses, should litigation be required to determine accountability for curtain wall failures.



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Site-Based Roof Administration

TechniScan can provide client sites with single-point day-to-day roof administration. We staff and manage a “call center” for all roofing related incidents, promptly dispatching a qualified TechniScan roofing technician to determine the root cause of the leak, and managing the entire repair process – providing third-party quality assurance for the repair job itself and audits of the subsequent contractor invoices.

- ▶ Provides a “call center” contact point for roofing incidents
- ▶ Investigation of incidents
- ▶ Dispatch of incident repair teams
- ▶ Quality Assurance of repairs
- ▶ Punch list review of all repair activity
- ▶ Review and approval of all repair invoices

The screenshot displays the TechniScan web application interface. The top navigation bar includes "Cover Page" and "Table of Contents". The main content area shows a report for "Quest - 931 14th Street, Denver, Colorado Field Report #2 (06/28/2005)". It features a sidebar with a "Photographs" section containing 27 photos. The main content area displays two photos with captions: "Photo 1: This lower hole in the metal decking... (06/28/05 04:41:29 PM)" and "Photo 2: This lower plywood added to the steel deck... (06/28/05 04:41:29 PM)". The report text describes the investigation and repair process, mentioning the installation of a deck and the use of a deck board.

The bottom section of the interface shows a table of action items:

Assigned To	Assigned By	Description	Date Required
MAA/Zweir	MAA/Zweir	Call in Rich Zimner's court for confirmation of no built acceptance. Richard confirmed he was ok with no roofing at 7:09 meeting.	7/26/2005
GOV	GOV	Mock-up scheduled for completion by July 3rd. GOV to photo-document installation steps, including connected conditions such as nailing anchorages.	7/29/2005
GOV	GOV	Mock-up reviewed and inspected by maa in late July, approved subject to forthcoming confirmation in writing.	7/29/2005
GOV	GOV	Alum-Winco manufacturer representative had indicated Midwest Drywall in installation and finishing requirements.	7/29/2005
MAA	MAA	Bank PFI said he had reviewed provisions generally, was waiting completion and photo-documentation of mock-up scheduled for July 3rd.	7/29/2005
MAA	MAA	Sluice mock-up reviewed and approved by maa in late July as part of general mock-up approval, to be confirmed in writing per new Action Item Below.	7/29/2005
MAA	MAA	Foundation coordination issues have been resolved. GSEP determined no waterproofing is planned at this time due to cost considerations.	7/29/2005
GOV	GOV	Parking deck sealing to begin in early July, top deck completion depend on GSEP installation is complete.	7/29/2005
MAA/GOV	MAA/GOV	GOV to submit proposal for slabs or screens left to MAA.	7/29/2005
GOV	GOV	Fill screen with hole for downspout submitted and approved per discussion 07/29/05.	7/29/2005
MAA/Zweir	MAA/Zweir	Carport installation scheduled to begin August 1, no change.	8/28/2005

Enterprise Roofing Management Programs

TechniScan has developed a unique “roofing asset portfolio” management program for large property owners that minimizes risks, liabilities and budgetary surprises, while simultaneously leveraging economies of scale and ensuring that any re-roofing activities are cost-effective and trouble-free. TechniScan has created a “best practices” guideline and a nationwide network of qualified consultants to implement these programs. Among the benefits of the programs are:

- ▶ Uniform corporate-wide Web-based database of roofing asset portfolios
- ▶ Roofing “Best Practices” Manual for client-site use
- ▶ Nationwide network of qualified consultants
- ▶ Lists of pre-approved, qualified and cost-effective contractors
- ▶ Lists of pre-approved material vendors and “open-spec” authorized materials
- ▶ Third-party reviews of condition reports, specifications and quality assurance
- ▶ Assurances that local roofing decisions minimize risks and budgetary surprises
- ▶ Opportunities to leverage Corporate economies of scale with material vendors and contractors

The screenshot displays the 'Roofing "Best Practices" Manual' website. The main content area shows a 'Table of Contents' with sections for 'Best Practices' Roofing, Maintenance Practices, and Construction Practices. Below this, there is a section for 'Roofing "Best" Practices Manual' with sub-sections for 'Best Practices' Roofing, Roofing Policies Statements, and a list of roofing assets. The list includes columns for State, City, Address, and a numerical value. A sidebar on the left shows a photo of a roof and instructions for EPDM and TPO Single Ply Roofs, and Asphalt Shingles.

Roofing "Best Practices" Manual

Table of Contents

- 1) "Best Practices" Roofing
 - a) [Roofing Policies Statements](#)
- 2) Maintenance Practices
 - a) [Built-Up and Modified Roofs](#)
 - b) [EPDM and TPO Single Ply Roofs](#)
 - c) [Asphalt Shingles](#)
- 3) Construction Practices
 - a) Designing a "Best Practices" Roof
 - i) [Design Considerations](#)
 - ii) [Approved Roofing Consultants](#)
 - b) Selecting Good Materials
 - i) [Types of Roofing](#)
 - ii) [Approved Materials Vendors](#)
 - c) Ensuring Good Workmanship
 - i) [Quality Assurance Practices](#)
 - ii) [Approved Roofing Contractors](#)

Roofing "Best" Practices Manual

1) "Best Practices" Roofing

a) Roofing Policies Statements

- i) General: All roofs managed on behalf of Morgan Stanley U. S. Real Estate Investing Group (MSUSREIG) shall be managed in compliance with the practices outlined in this document.
- ii) Inspections: A roof condition assessment will be conducted at least every three years on all roofs that are over ten years of age, are no longer under warranty, or are one year before warranty expiration. Any roof areas suspected of containing wet insulation or decking should be subjected to a non-destructive moisture scan. Only approved roofing consultants listed below will perform roof condition inspections. All roof condition assessments shall be prepared in a manner compliant with (and accessible via) the Morgan Stanley Roof Management Program (MSRMP) web-site.
- iii) Specifications: All roofing designs will be prepared using "open" specifications that call for commodity-class materials available from more than one of the approved materials vendors listed below, and available to two or more of the approved contractors listed below.

GA	Atlanta	1200 Ashwood Parkway	
TX	San Antonio	One Technology Center	1 17,400
CO	Broomfield	Summit at Broomfield	
MA	Boston	360 Newbury Street	1 12,000
MA	Gloucester	The Heights at Cape Anne	
MA	Medford	Mystic Place	
MD	Silver Spring	Hampton Hollow	
NY	Elmsford	Ridgeview Apartments	23 183,000
RI	Cranston	Springfield	
TX	Houston	Alexan Lofts	
IL	Elk Grove Village	Chancellory Business Park, 2501-2575 Allan Drive	
IL	Elk Grove Village	Chancellory Business Park, 2601-2651 Allan Drive	
IL	Oak Brook	Drake Oak Brook Plaza	2 25,000
IL	Wood Dale	Chancellory Business Park, 1501 Mittel Drive	
IL	Wood Dale	Chancellory Business Park, 1555 Mittel Blvd.	
IL	Wood Dale	Chancellory Business Park, 1226 Michael Drive	
IL	Wood Dale	Chancellory Business Park, 1501 Michael Drive	
IL	Wood Dale	Chancellory Business Park, 170-200 Thorndale	

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