

# Renovation and Construction Monitoring

## AIRBORNE MONITORING OF INDOOR SPACES DURING RENOVATION OR CONSTRUCTION PROJECTS

Activity related to construction projects can generate dust, odors, and even mold which can expose nearby occupants to airborne contamination. An advanced building performance monitoring and evaluation system offers a cost effective method for recording and documenting key indoor air parameters. Designated spaces may be tested prior to construction to establish a baseline, and continuously or periodically monitored during the process.

### EASY ACCESS TO DATA

The monitoring system, known as Optima™, transmits environmental data to a secure web site. We can provide you access to the graphed data at any time, with updates as often as every hour. The system automatically generates a comprehensive evaluation of the data, identifying an acceptable range for each parameter and noting any out of range values.

### WHAT OPTIMA MONITORS

The system can provide an analysis of the following:

- AIRBORNE PARTICLES
- CARBON MONOXIDE
- TOTAL VOLATIVE ORGANIC COMPOUNDS
- CARBON DIOXIDE
- OZONE
- TEMPERATURE
- RELATIVE HUMIDITY
- RADON



### SAMPLE OF REPORTING DATA

Test Area	Comfort and Ventilation				Air Cleanliness			Building Pollutants		
	CO2 (ppm)	Temperature (°F)	Relative Humidity %	CFM OA PP	PM10 µg/m3	PM 2.5 µg/m3	TVOC (index)	CO (ppm)	Radon (pCi/l)	Ozone (ppm)
Accounting	593	69	26	36	14	9	0	0	0.3	0
Lara's office	531	74	20	46	6	4	0	0	0.5	0
Marketing	480	69	27	59	5	4	0	0	0.3	0
Typical/comfort	< 1012	71-74	20-60	> 15	< 40	< 20	< 10	< 3	< 2	< 0.1
Recommended	< 1012	68-78	20-60	> 15	> 40	< 20	< 35	< 9	< 4	< 0.1

- CO2 (Carbon dioxide) values expressed as 90<sup>th</sup> percentile ppm during occupied hours
- CFM (Outdoor area) refers to cubic feet per minute of outdoor air per person as calculated using ASHRAE guidelines.
- CO (Carbon monoxide)
- TVOC (Total volatile organic compounds)
- PM 2.5 (Particulate matter 2.5 microns and less in size)
- PM 10 (Particulate matter 10 microns and less in size)

## THE OPTIMA™ SYSTEM

The monitoring device that collects the environmental data is designed to perform the monitoring in an unobtrusive manner. Its physical appearance allows it to blend into an office or work setting, and it is virtually silent.

Depending on the survey, the unit can either remain at one building location during the entire survey, or may be moved once per day to several locations. The number of building sample locations depends on both the size and use of the building, and whether or not previous issues have been noted. We will work with you to establish the best program for your building.

## THE BUILDING PERFORMANCE AND MOLD REPORTS

The building performance evaluation report summarizes the data as it relates to comfort and ventilation, air cleanliness, and building pollutants. The final report is comprehensive, easy to understand, and will contain specific recommendations for corrective action if warranted. These recommendations will allow you to resolve issues in a practical, inexpensive way. Our technical staff will work with you to interpret the analysis and to optimize the performance of your building.

**To learn more about what we can do for you, just give us a call today!**

