



**BUREAU  
VERITAS**

# TOWN OF BOLTON

## TOWN BUILDING FACILITY CONDITION ASSESSMENT

January 8, 2025



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Town of Bolton  
Attn: Kathy McCavanagh  
Selectmans Office  
222 Bolton Center Road  
Bolton, CT, 06043



RE: Proposal for RFP for Facility Condition Assessment Services

Dear Ms. McCavanagh

Bureau Veritas Technical Assessments, LLC (Bureau Veritas) is pleased to provide the Town of Bolton with the enclosed proposal in response to the RFP for Facility Condition Assessment services. Bureau Veritas understands the requirements of the RFP and is qualified to perform the services.

**Proven Experience** | Bureau Veritas is especially qualified to undertake this project as Facility Condition Assessments are a core service of Bureau Veritas for the past 200 years. We have completed thousands of projects with more than 800 million square feet of space in the last five (5) years for public agencies across the country. Bureau Veritas is a leading architectural, engineering, and environmental consulting firm specializing in facility assessments, maintenance department assessments and long range planning. Bureau Veritas positions itself as a non-biased third party representative that typically acts as an agent on behalf of the client's best interest. Our services are not influenced on any type of follow-on or design work that may occur after our initial assessment services; we remain impartial consultants who's only goal is to provide the Town with the most accurate data that arms them with decision intelligence.

**Highly Qualified Team** | Bureau Veritas is an architecture and engineering firm focused solely on building lifecycle and capital planning studies, with more than 800 building professionals nationwide. Bureau Veritas has over 30 years of experience conducting Facility Condition Assessments. We have provided similar services for the following similar clients:

- Hartford Public Schools, CT
- City of Danbury, CT
- City of Hartford, CT
- City of Waterbury, CT
- Plymouth Public Schools, MA
- Boston Public Schools, MA
- Weymouth Public Schools, MA
- Braintree Public Schools, MA
- Fall River Public Schools, MA
- Town of Franklin Schools, MA
- Town of Arlington Schools, MA
- St. Johns Preparatory School, MA
- The Epiphant School, MA
- Central Vermont School District, VT
- State of Vermont Agency of Education, VT
- Burlington School District, VT
- Rutland Public Schools, VT
- Buffalo Public Schools, NY
- Maryland Statewide Schools, MD
- Montgomery County Schools, MD
- Baltimore City Public Schools, MD
- District of Columbia Public Schools, DC

**Database Deliverable** | In addition to an assessment report, BV will be delivering a database, called AssetCALC, that will include all assets within the Town's building portfolio. The assets can be organized by system, plan type, or uni-format. The asset data can be ranked, graded, and prioritized based on set parameters. AssetCALC will give the Town the ability to slice and dice the data in actionable ways which will allow for flexible capital planning and analysis purposes. The database will allow a greater ability to analyze the data that is not possible from a narrative report.



**BUREAU  
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Bureau Veritas is committed to providing quality services, and consistently demonstrating our corporate commitment to quality, continual improvement, and client satisfaction. Bureau Veritas is not debarred, suspended, or otherwise prohibited from professional practice by any federal, state, or local agency.

The following pages detail our history, similar project experience, our key personnel and team, and our approach to your unique project. Bureau Veritas is committed to working with the Town of Bolton to provide the highest possible quality of service. We appreciate the opportunity to present our qualifications for this project and look forward to working with the Town. I am available at 410.533.6988 or via email at [cheyenne.irby@bureauveritas.com](mailto:cheyenne.irby@bureauveritas.com) to further discuss our qualifications.

Sincerely,

Cheyenne Irby  
Associate Vice President



## TABLE OF CONTENTS



|   |    |
|---|----|
| 1. Scope of Work and Project Approach ..... | 1  |
| 2. Firms Background and Experience.....     | 13 |
| 3. Key Staff and Resumes .....              | 20 |
| 4. Cost Proposal .....                      | 27 |

# 1. SCOPE OF WORK AND PROJECT APPROACH

## Project Understanding

BV understands that the Facility Condition Assessment (FCA) project with the Town of Bolton (“Town”) will:

- Include a comprehensive assessment of all sites, buildings, building systems, and infrastructure.
- Follow ASTM E2018-24 Standard Guide for Property Condition Assessments, as applicable.
- Determine the present condition and estimated life expectancy of various building systems and components.
- Identify and document present condition of all physical assets including grounds, facilities, and infrastructure.
- Recommend corrections for all deficiencies and provide cost estimates for corrections.
- Prioritize and categorize deficient conditions, associated corrective actions, and information concerning building systems and deficiency categories.
- Establish anticipated renewal and replacement costs for the various systems and components.
- Result in strategic plan for capital repairs, lifecycle component replacement, and building modernization.
- Calculate the Current Replacement Value (CRV) and Facility Condition Index (FCI) for each facility.
- Establish a protocol for FCA data to migrate/transfer to a CMMS/IWMS system.
- Collect Equipment Inventory and nameplate data for Town properties.

We understand that a key factor to performing FCAs is the evaluation of physical needs and accurate forecasting for capital repair and replacement budgets. Pre-emptive measures to manage maintenance budgets and programs are essential in ensuring the elimination of potential issues, which can range from deferred maintenance, or premature replacement of building systems that can prove costly.

## Data Gathering and Interview

Our project plan details three distinct phases of the project. During each phase, we will require coordination and support from the Town's facility management.

**Data Gathering Phase** – BV will need the support of staff who can provide us access to drawings and records. The following is a typical list of exhibits requested.

- Inspection reports (sewer, boiler, chiller, etc)
- Building systems Maintenance Records

- Maintenance policy documentation
- Owner elected repair list (if available)
- Original building plans (can be viewed on-site)
- Capital expenditure schedules (prior or planned)
- Fire protection / life safety plans
- Rehabilitation budget and scope (draft or final)
- Certificates of occupancy / facility license
- Prior assessments
- Site plan / floor plans
- Accessibility transition plans / studies
- CMMS / IWMS data set

In addition to the drawings and records, we will supply a pre-survey questionnaire for each facility or site. Our expectation is that someone with knowledge of maintenance and operations of the facility will complete this survey and be prepared to discuss it with us while on-site.

**Site Phase** – BV will need support in the form of escorts while in the facilities to help us access mechanical areas, to discuss with us any known issues in the facility, and to answer other technical questions.

**Report Review Stage** – BV will provide a complete deliverable for each building.

BV will become familiar with the Town's existing Project Directory - property list and contact directory for each location. We will contact or interview the facilities contacts as part of our process to determine current use requirements and priority of properties based on agency goals.

Working with the Town, we will develop procedures to gain Facility Access. Our visits will be coordinated and pre-approved by the Town prior to the visit. We will work with the Town to establish a protocol that will ensure that our activities will have minimal disruption to the operation of each facility and will maintain a safe work environment.

## Technical Approach

Prior to assessments beginning, BV will conduct a Kick-Off Meeting to review requirements and to consolidate exhibits such as drawings and prior completed reports.

During the term of the project, BV will conduct regular Progress Meetings to maintain open communication with the entire project team and the Town. BV will lead with an agenda that includes a focus on work plan, schedule, and project needs. This will permit the opportunity to proactively address challenges encountered, so that course

adjustments may be made. Each meeting will conclude with task assignments, schedules, and goals to be met. BV will provide the Town with a written status report that tracks and monitors the progress of the assessments against the schedule submitted.

BV has allocated time for regular teleconference meetings and the following in-person meetings: Kick-Off Meeting, Pilot Review Meeting, and a Final Findings Presentation meeting. Any additional in-person meetings will be on a time and expense basis.

## **PILOT PROGRAM**

To begin the work, BV proposes a Pilot Program where we will perform an assessment of a single building and prepare a written Draft Report for review. A meeting will be held with the Town staff to review the draft report before assessing the remaining buildings. BV's Assessment Team will visit the building to evaluate the general condition of the buildings and site improvements, review available construction documents in order to become familiar with, and be able to comment on the in-place construction systems, life safety, mechanical, electrical and plumbing systems, and the general built environment.

## **FIELD ASSESSMENTS**

The Assessment Team will conduct a walk-through survey of the facility and site to observe systems and components, identify physical deficiencies, and formulate recommendations to remedy the physical deficiencies.

As a part of the walk-through survey, the Team will survey 100% of each facility. BV will survey the exterior and grounds, including the building exterior, roofs, sidewalk/pavement, and recreational/other areas as applicable. They will interview the building maintenance staff about the property's historical repairs and replacements and their costs, level of preventive maintenance exercised, pending repairs and improvements, and frequency of repairs and replacements. The Assessment Team will develop opinions based on their site assessment, interviews with the Town's building maintenance staff, and interviews with relevant maintenance contractors, municipal authorities, and experience gained on similar properties previously evaluated.

The Team may also question others who are knowledgeable of the property's physical condition and operation or knowledgeable of similar systems to gain comparative information to use in evaluation of the subject property.

The Assessment Team will review documents and information provided by the Town's maintenance staff that could aid the knowledge of the property's physical improvements, extent and type of use, and/or assist in

identifying material discrepancies between reported information and observed conditions.

The facility condition assessment will include the Town identified assets and will focus on the following facility and site systems and components:

### **Site + Infrastructure**

- Topography: Observe general topography and note any unusual or problematic features or conditions observed or reported.
- Paving, Curbing, and Parking: Identify material types of paving and curbing systems at the property.
- Flatwork: Identify material flatwork at the property (sidewalks, plazas, patios, etc.).
- Landscaping and Appurtenances: Identify material landscaping features, material types of landscaping (fences, retaining walls), and site appurtenances (irrigation systems, fountains, lighting, signage, ponds).
- Utilities: Identify type of material utilities provided to the property (water, electricity, natural gas); and assess condition, physical deficiencies, life cycle repair, and replacement issues.

### **Structural Frame + Building Envelope**

- Identify material elements of the structural frame and exterior walls, including the foundation system, floor framing system, roof framing system, facade or curtain-wall system, glazing system, exterior sealant, doors, commercial overhead doors, sliders, windows, and stairways, etc.
- Observe general conditions and note any physical deficiencies identified or unusual items or conditions observed. Observations may be subject to grade, and rooftop vantage points.
- Visually inspect observable areas for cracking and moisture infiltration as well as areas of apparent foundation settlement and displacement.
- In the event more information or exploratory testing is required, in order to provide remedial measures, the report may include recommendation for additional investigative testing (Tier 1 or Tier 2).

### **Wall Evaluation**

- Photograph elevations and details both from internal and external vantage points, as well as from adjacent structures where possible.
- Observe representative operable and fixed panels on all facades, operating a representative sample of units to assess hardware and visually inspect exterior conditions and condition of waterproofing seals.

- Assess curtain wall condition to determine water infiltration, damage, caulk degradation, metal panel degradation, stone degradation and anchoring, and other related curtain wall issues.

### **Curtain Wall**

- Review curtain wall condition and a sampling of fixed panels on facades to assess hardware and visually review exterior conditions and the condition of waterproofing seals, where accessible without the use of lifts, ladders, scaffolding, suspension devices, or the like; may include observations from internal and external vantage points, as well as adjacent structures. Observations are limited to grade and may include accessible balconies or rooftop vantage points.
- Review provided drawings and records of repair, replacement, and maintenance of framing and glazing.

### **Roofing (Non-Invasive Visual)**

- Identify material roof systems (roof type, reported age, slope, drainage) and any unusual roofing conditions or rooftop equipment.
- Observe general conditions of the roof system (membranes, attachment methods, flashings, counter flashings, pitch pans, gravel stops, parapets, miscellaneous appurtenances, insulation).
- Observe for evidence of material repairs, significant ponding, or evidence of material roof leaks. Note if a roof warranty is in effect. Note any physical deficiencies identified or unusual items observed or reported.
- Identify material rooftop equipment or accessories (antennas, lightning protection, HVAC equipment, solar equipment). Include any material problems reported.
- BV understands that the Town will provide OSHA compliant ladders, lifts and/or scaffolding (depending on roof type) so that the Project Manager may safely access roof areas. If requested, BV can provide a quote for lift and/or ladder access as needed. Observations will be limited to readily accessible areas.

### **Plumbing**

- Identify material plumbing systems at the property including domestic water supply, sanitary sewer, or any special or unusual plumbing systems (such as water features, fuel systems, gas systems, etc.).
- Identify type and condition of restroom fixtures, drinking fountains and/or other plumbing equipment.
- Observe general conditions and note any physical deficiencies identified or unusual items or conditions observed. Include any reported material system inadequacies.

### **Heating**

- Identify material heat generating systems at the property.
- Observe general conditions, identify reported age of the equipment, note past material component replacements/upgrades, note apparent level of maintenance, and identify if a maintenance contract is in place. If heating equipment is not operational at the time of the walk-through survey, provide an opinion of the condition to the extent reasonably possible.
- Identify and observe any special or unusual heating systems or equipment present (fireplaces, solar heat, etc.) and note any reported material problems or inadequacies.

### **Air-Conditioning + Ventilation**

- Identify the material air-conditioning and ventilation systems at the property. Include material equipment such as cooling towers, chillers (type of refrigerant used), package units, split systems, air handlers, thermal storage equipment, etc.
- Identify material distribution systems (supply and return, make-up air, exhaust) at the property.
- Observe general conditions, identify equipment reported age, note past material component upgrades/replacements and apparent level of maintenance, and identify if a maintenance contract is in place (contractor name). If AC and ventilation systems are not operational at the time of the walk-through survey, provide an opinion of the condition to the extent reasonably possible.
- Observe general conditions and note any physical deficiencies identified or unusual items or conditions observed. Additionally, include any material reported system inadequacies or operating deficiencies.
- Identify and observe any special or unusual air-conditioning and ventilation systems or equipment (cold storage systems, special computer cooling equipment, etc.) and note any material reported problems or system inadequacies.

### **Electrical**

- Identify the electrical service provided and distribution system at the property.
- Include material switchgear disconnects, circuit breakers, transformers, meters, emergency generators, general lighting systems, and other such equipment or systems.
- Observe general electrical items (distribution panels, type of wiring, energy management systems, emergency power, lightning protection).



- Observe general conditions and note any physical deficiencies identified or unusual items or conditions observed. Also, note the presence of any special or unusual electrical equipment, systems, or devices at the property, and include reported material problems or system inadequacies.

### **Life Safety + Fire Protection**

- Identify material life safety/fire protection systems at the property, including sprinklers and stand pipes (wet or dry), fire hydrants, fire alarm systems, water storage, smoke detectors, fire extinguishers, emergency lighting, stairwell pressurization, smoke evacuation, etc.
- Observe general conditions and note any material physical deficiencies identified or unusual items or conditions observed or reported including any reported system inadequacies.

### **Elevators + Vertical Transportation**

- Identify vertical transportation systems at the property. Include the equipment manufacturer, equipment type, location, number, capacity, etc.
- Observe elevator cabs, finishes, call and communication equipment, etc.
- Identify the company that provides elevator/ escalator maintenance at the property. Observe general conditions and note any physical deficiencies identified or unusual items or conditions observed or reported including any reported material system inadequacies.
- Out of Scope Issues: Performing any calculations, examination of operating system components such as cables, controller, motors, etc.; entering elevator/ escalator pits or shafts.

### **Interior Elements**

- Identify offices, special use areas, and building standard finishes, including flooring, ceilings, walls, etc. Furnishings and fixed components will be reviewed and included in the cost estimate tables for replacements. BV will identify material building amenities or special features.
- Observe general conditions and note any physical deficiencies identified or unusual items or conditions observed or reported.

### **Food Service Spaces and Equipment**

- Assess all food service equipment and spaces (kitchen, cafeteria, dining, serving areas). Food service equipment (fixed equipment) will be evaluated for adherence to life/ safety code and ventilation requirements as well for condition and capital replacement.

### **Special Systems and Equipment**

- Include all special systems and equipment, such as Emergency Medical Systems (EMC), chillers, radio

towers, equipment lifts, chair lifts, chemical storage or treatment areas, storage tanks, dumbwaiters, vaults, public address systems, and telephone systems.

### **Limited Accessibility Compliance**

- Provide a general statement of the building's likely compliance to the Americans with Disabilities Act to help identify whether the Town may be exposed to issues and there is the need for further review.

### **Suspected Fungal Growth**

- Perform a limited assessment of accessible areas for suspected fungal growth. If the presence of mold, conditions conducive to mold growth, and/or evidence of moisture. elevated relative humidity, water intrusion, and mildew-like odors is discovered, affected areas will be photographed and recommendations for any additional moisture intrusion studies will be made.

### **Environmental Features**

- Review environmental features of the property, to include appearance, cleanliness, acoustics, ventilation, and humidity.

### **Lead-based Paint**

- Review existing testing data and other documentation regarding lead-based paint available on site (included in the cost of the FCA); evaluate physical condition and develop cost estimates for remediation of paint necessitated by pending renovations.
- Able to provide a licensed lead-based paint inspector to conduct testing using an x-ray fluorescence analyzer at the Project as an additional service. The instrument is completely non-destructive and yields instantaneous results.

### **Asbestos**

- Review existing testing data and other documentation regarding asbestos available onsite (included in the cost of the FCA); evaluate physical condition and develop cost estimates for remediation of asbestos likely to be disturbed by renovations.
- If asbestos testing is requested, BV will provide a licensed asbestos inspector to collect samples of suspect asbestos-containing materials at the Project as an additional service. Scope of this sampling will be determined after review of existing data, costs will be based on daily rate plus the cost of analysis.

### **Energy Conservation Analysis**

- Consider energy conservation savings when making repair or replace recommendations and include these projects in the project prioritization.
- Able to provide an Energy Audit (ASHRAE Level I, II, or III) or Benchmarking (EnergyStar) services as an additional service.



## Ranking and Classification

Based upon our observations, research and judgment, along with consulting commonly accepted empirical Expected Useful Life (EUL) tables; BV will render our opinion as to when a system or component will most probably necessitate replacement.

Accurate historical replacement records provided by the facility manager are typically the best source for this data. Exposure to the weather elements, initial system quality and installation, extent of use, the quality and amount of preventive maintenance exercised are all factors that impact the effective age of a system or component. As a result, a system or component may have an effective age that is greater or less than its actual age. The Remaining Useful Life (RUL) of a component or system equals the EUL less its effective age.

BV can rate the condition of each facility with the below rating system, or another Town-specified scale:

- 5 Excellent** - No visible defects, new or near new condition, may still be under warranty if applicable
- 4 Good** - Good condition, but no longer new, may be slightly defective or deteriorated, but is overall functional
- 3 Adequate** - Moderately deteriorated or defective, but has not exceeded useful life
- 2 Marginal** - Defective or deteriorated in need of replacement; exceeded useful life
- 1 Poor** - Critically damaged or in need of immediate repair; well past useful life

BV can also include alternative categories to rank and weight priorities as required by the Town, such as functional deficiencies, aesthetics, time-based urgencies, and other mission critical factors. The analysis will include all cost observations ranked by Priority Classes.

The five classes to the right are typical but can be altered to meet your specifications and needs.

### DEFICIENCY CATEGORIES/PLAN TYPES

Each deficiency identified in the Assessment shall be classified in the following manner (or other Town-defined categories):

**Category 1- Scheduled Maintenance:** Maintenance that is planned and performed on a routine basis to maintain and preserve the condition.

**Category 2 - Deferred Maintenance:** Maintenance that was not performed when it was scheduled or is past its useful life resulting in immediate repair or replacement.

## PRIORITY CLASSES



**Category 3 - Capital Renewal:** Planned replacement of building systems that have reached the end of their useful life.

**Category 4 - Energy and Sustainability:** When the repair or replacement of equipment or systems are recommended to improve energy and sustainability performance.

**Category 5 - Security:** When a system requires replacement due to a security risk or requirement.

### UNIFORMAT CATEGORIES

The deficiencies observed will be classified into categories using the Unifomat System (up to Level 4):

Level 2

A10 Foundations

A20 Basement Construction

B10 Superstructure  
 B20 Exterior Enclosure  
 B30 Roofing  
 C10 Interior Construction  
 C20 Stair  
 C30 Interior Finishes  
 D10 Conveying  
 D20 Plumbing  
 D30 HVAC  
 D40 Fire Protection  
 D50 Electrical  
 E10 Equipment  
 E20 Furnishings  
 F10 Special Construction  
 F20 Selective Building Demolition

## Cost Estimating

BV uses a cost library model for cost estimating. Our database follows Uniformat Level 4 framework and is based in part on data from national commercial cost estimating guides. BV maintains and updates our Uniformat-based cost estimating system with information received from the field. Through construction monitoring work, we have current cost data from hundreds of in-progress construction and rehabilitation projects. This data allows us to calculate costs based on local conditions to maintain a cost database that is typically more current than national cost estimating platforms.

Each report will include a Capital Needs Analysis including an estimated cost for each system or component repair or replacement anticipated during the evaluation term. The report will provide options for repair of the deficiency, and the capital needs analysis will be presented as an Excel-based cost table that includes a summary of the description of each component, the age and estimated remaining useful life, the anticipated year of repair or replacement, quantity, unit cost and total cost for the repair of each line item.

A consolidated Capital Needs Analysis will be presented that includes all anticipated capital needs for all buildings. The cost estimate for capital deficiencies will be based on the estimate for maintenance and repair, but may at Town's option, also include project management costs, construction fees, and design fees. Project management costs, construction fees, and design fees will be derived using actual costs from previous projects. After determining these costs, we will confirm these costs with your staff.

## Equipment and Asset Inventory

During the assessment, each field team will be responsible for collection and storing the inventory and condition assessment data in an electronic format that is readily transferable to the Town's CMMS system.

BV will collect information on the major pieces of facility equipment. Specifically, the data collection will include Town-defined assets, and also focus on the following components:

- **HVAC (level of detail for which Preventive Maintenance would be performed)**
  - Heating System
- **Identify boilers, furnaces, unit heaters and major labeled equipment**
  - Ventilation System
    - o Identify the major labeled equipment; exhaust hoods, fans
  - Air Conditioning System
    - o Identify the material air-conditioning components, including cooling towers, compressors, chillers, package units, roof top units, split systems and major labeled equipment. Excluded are window units, terminal units, VAV boxes, and thermostatic controls
- **Electrical**
  - Major panels only-for identification to track maintenance
  - Transformers
  - Switchgear
- **Equipment**
  - Building Automation System
- **Plumbing**
  - Pumps external to HVAC systems
  - Domestic Hot Water heaters over 80 gallons
  - Other major labeled equipment
- **Commercial Kitchen - major equipment (above approximately \$2000 value)**
  - Walk-in freezer and refrigerator equipment
  - Ovens, stoves, broilers, grills
  - Reach-in refrigerators and freezers
  - Dishwashers
  - Fryers
- **Life Safety/Security**
  - High Level (system level) only-for identification to track maintenance
    - o Alarm Panels
    - o Emergency generators
    - o Exhaust hood fire suppression
- **Vertical Transportation**

Where appropriate, the following data will be collected for each component:

- Location data
- Model
- Serial Number
- Manufacturer
- Manufactured Date

### **OPTION: Barcoding / QR Coding**

For the above referenced equipment, BV will apply a durable barcode / QR code/asset tag with a unique number for use as an identifier in the CMMS system. We will use labels supplied by the Town or a vinyl tag for indoor applications, and a durable foil tag for outdoor use. Barcode / QR code numbers will be recorded in the database and all future work orders etc., and can be tied back in to a single piece of equipment or system. The cost of Barcoding / QR coding assumes that we will tag equipment during the FCA process.

### **Report Deliverables**

BV will provide an in-depth report including a description of each of the building components and systems as described in the approach sections above. Each report is organized by building system and include digital photos of major systems and components and of all deficiencies identified. Reports will include current and anticipated repairs and deficiencies, recommended repair and component life-cycle replacements, and applicable options for repair or maintenance of building components.

The Capital Needs analysis will include a cost database sorted by building system and ranked by priority for repair. The format of the database will allow for reporting by building, system, or priority for repair, and a year-by-year analysis of capital needs.

#### **Facility Condition Index**

A Facility Condition Index will be calculated for each building. This index will be a function of required repairs compared to building replacement costs. The Facility Condition Index will be generated from the data collection/capital planning database and will be updated as components age or are replaced.

#### **Capital Plan**

Reports will reflect a 5, 10, or 20-year capital plan based on BV's 20-year building system evaluation. The analysis will include a cost table sorted by building and system and ranked by priority for repair. Tables will allow for the customization of reporting and a year-by-year capital needs analysis. The report will include:

- An Executive Summary with graphic presentation of results to provide a quick, user-friendly summary of the property's observed condition and estimated costs assigned by category. These estimated costs shall be cross-referenced to report sections where an elaboration of cost issues will be presented.
- Components observed that are exhibiting deferred maintenance issues and estimates for immediate and capital repair costs based on observed conditions, available maintenance history and industry-standard useful life estimates. If applicable, this analysis will include the review of any available documents pertaining to capital improvements completed within the last five-year periods, or currently under contract. BV shall also inquire about available maintenance records and procedures and interview current available on-site maintenance staff.
- Recommended schedule for replacement or repairs (schedule of priorities).
- Digital photographs for the buildings including photos of deficiencies.
- General description of the property and improvements and comment generally on observed conditions.
- Critical repairs and life safety issues separately from repairs anticipated over the term of the analysis.
- Facility Condition Index (FCI) number for the building.

BV will submit draft reports electronically via PDF format and once approved and finalized, a program summary report is provided to include a roll-up of all prioritized capital needs across all facilities. All electronic copies of the report will include all text, deficiency tables, digital photos, and supporting documentation and report appendices.

#### **Program-wide Report**

In addition to each building report, BV will develop a program-wide report that includes a ranked system-wide Capital Plan for all facilities with programmatic conclusions and recommendations. The report includes a brief narrative description of each facility/building component and system, and discusses the current and anticipated repairs and deficiencies of all buildings assessed. The report analyses will include tables sorted by building system and ranked by priority for repair. The format of the tables will allow for the several perspectives of reporting by FCI, building, system, or priority for repair, and a year-by-year analysis of capital needs.

## AssetCALC™ - Assessment Software and Database Deliverable

Bureau Veritas proposes utilizing AssetCALC™ as its platform for all data collected on this project. AssetCALC™ is a cloud platform developed, licensed, maintained, and supported solely by Bureau Veritas for our Towns. The use of this software is at your option and there are no licensing fees for this software for.

AssetCALC™ is a web-based SQL database platform that enables users to:

- query, edit, and analyze their facility condition data
- plan immediate and short-term repairs
- budget capital expenditures throughout the lifecycle of a building or an entire portfolio

The system unites Bureau Veritas' experienced field data collection methods with advanced planning and reporting tools, construction cost libraries, location mapping (GIS) features, digital photo management, and document storage.

### DATA DEVELOPMENT

AssetCALC™ includes a configurable facility hierarchy and asset data architecture - this will include all of your assets grouped based on site location, asset group, and function. Data can be exported to an Excel, XML, or an ODBC database format compatible for upload into your CMMS, EAM, or work-order systems.

### FEATURES INCLUDE:

- Facility Condition Assessment access:
  - Component/system descriptions
  - Locations
  - Conditions and EUL/RUL
  - Repair and replace recommendations
  - Digital photos
  - Search and Sorting Functionality
- Prioritization of maintenance projects
- UniFormat II Cost Database
- Project Budgets and Capital Plans
- Unlimited concurrent user licensing
- Secure IT platform and back-ups
- Town is the owner of data collected and residing in the database
- Online User Training and Documentation

Photos FCI Documents Work Completed Work Screen Inventory

### Observation Details - Obs #36672

Description: **B2032 - Entrance door replacement to meet ADA guidelines**

Component: \_\_\_\_\_

Attributes: \_\_\_\_\_

Action: \_\_\_\_\_

Master Cost Id: 1916

Category: Exterior Enclosure / Exterior Doors / Solid Exterior Doors

Location: Main De/Veigas south entry door

Condition: Fair

Report Section: 3.3

Comments: install remote-controlled door (or other appropriate building entry accommodation) for resident(s) at main northeast entrance door.

EMG Comments: \_\_\_\_\_

Capacity Description: \_\_\_\_\_

Flagged for Review: No

GPS: \_\_\_\_\_

Created: svogr on 4/17/2010 2:41:40 PM

Last Modified: manderson on 10/27/2010 2:37:52 PM

Overview Observations Photos FCI Documents Work Completed Work Screen

### 510-512 Clay Street - Sheriff & Facilities

No cover photo selected. Select a cover photo from the photos page.

▲ Critical/Safety Issues: 0 [View report](#)

Replacement Reserve [View report](#)

UniFormat Breakdown [View report](#)

Site Information [Edit\\*](#)

Assessment Date: \_\_\_\_\_

FD Location: 510-512 Clay Street - Sheriff & Facilities

Replacement Value: \$2,948,160

City: Fairfield

Number of Buildings: 1

Square Foot Cost (Replacement): 222,000

Street Address: 510 Clay Street

Total Square Footage: 13290

Year Built: 1991

Zip Code: 94533

Priority: 5

| Icon | Obs # | Building     | Description   | Location                |
|------|-------|--------------|---|-------------------------|
| 1    | 5993  | Building 110 | The curb ramp does not meet the slope requirements. | 40.782582<br>-73.475279 |
| 2    | 5994  | Building 110 | The curb ramp does not meet the slope requirements. | 40.782582<br>-73.475279 |
| 3    | 5993  | Building 110 | The curb ramp does not meet the slope requirements. | 40.782582<br>-73.475279 |
| 4    | 5995  | Building 110 | The curb ramp does not follow local building.       | 40.782582<br>-73.475279 |
| 5    | 5992  | Building 110 | The curb ramp does not meet the slope requirements. | 40.782582<br>-73.475279 |

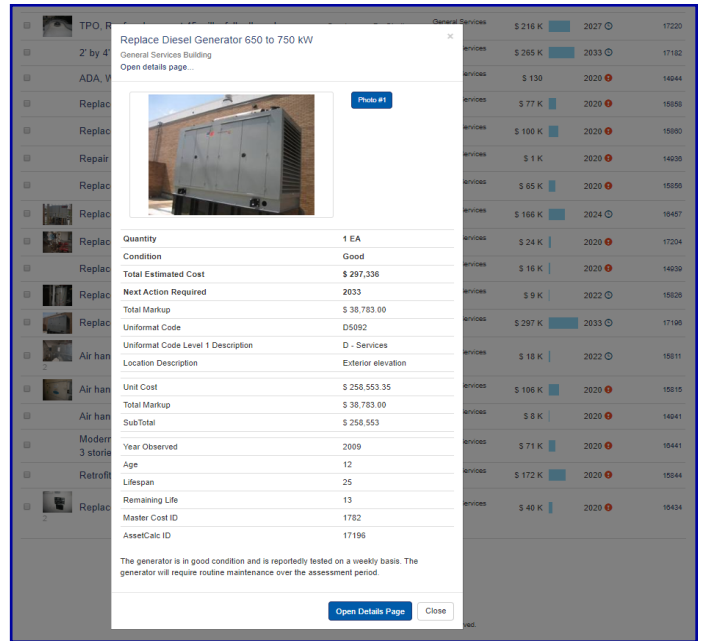


## REPORTING

AssetCALC™ includes more than a dozen standard options for data summaries and reports:

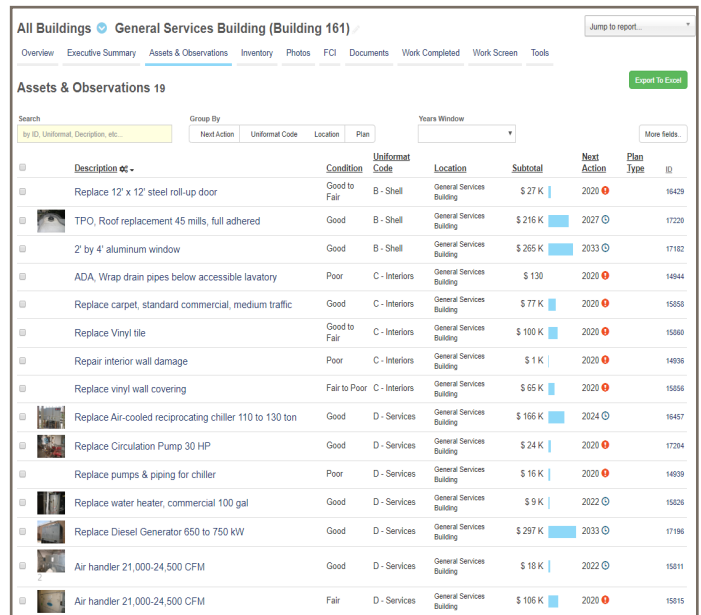
- Facility Condition Index (FCI) Reports
- Rank and Prioritize Capital Improvement Projects
- Deferred Maintenance Backlog
- Facility Queries (by building, priority, system, or dollar deficiency amount)
- Capital Budget Planning
- Year-by-Year Capital Needs Analysis
- 5, 10, or 20-Year Replacement Reserve Reports
- Custom 3rd party form automation available

**Screen Shots** - Additional screen shots of the AssetCALC™ Database and a live demo are available upon request.



## CMMS-Ready Data

BV will collect and store all information in our SQL database. Our database allows us to routinely update and run reports for the Town after the initial assessment is complete. This system also allows us to export the Town's FCA data into existing or future CMMS work order platforms. BV has experience with more than 50 CMMS platforms including: CityWorks, Lucity, Brightly, Archibus, Maximo, TMA, Corrigo, Cartegraph and many more.



## Space Needs Analysis

Current space utilization for each municipal facility will be assessed; This will include measuring the space and documenting the current use and classification of the space by “Type-of-Use”. Type-of-Use consists of areas designated for public works and municipal activities.

Space utilization metrics and occupancy specifications will be determined based on standards employed by similar public works and municipal facilities. Some of these standards will evaluate square footage required based on the use of the space and the average occupancy capacity for that use. Other space analysis requirements will be based on the GSA’s “Workspace Utilization and Allocation Benchmark” Study and the US Department of Commerce’s “Space Standards, Guidelines and Procedures”.

The space utilization and occupancy survey will give an overall understanding of how the client uses the space throughout the facility as whole. This data should provide the means evaluate prospective space management that will allow the most appropriate use of a space that will work best with the mission of the client. In addition to best use practices from similar facilities, recommendations to optimize space use with a clear distinction between types will also be determined by prioritizations discussed between the client and BV.

The general mission is to identify and provide recommendations for optimizing buildings areas that are underutilized or that can be better utilized. Space utilization and occupancy will be determined by the needs, mission, and intentions of the client so they can determine specific functional spaces related to the capacities of the size and design of the area.

For educational facilities, current education utilization for the school will be assessed; This will include measuring the space and documenting the current use and classification of the space by “Type-of-Use”. Type-of-Use consists of areas designated for educational activities. Space utilization metrics and occupancy specifications will be determined based on standards employed by the State of Connecticut Department of Education and the local school district’s facility goals. Some of these standards will evaluate square footage required based on the use of the space and the average occupancy capacity for that use. BV will evaluate enrollment projection to assess whether current school programing are sufficient to support educational programing needs for the next 10 years. The space utilization and occupancy survey will give an overall understanding of how the school uses the space throughout the facility as whole. This data should provide the means to evaluate space requirements for current education adequacy outlined by the Department of Education. In addition to best use practices from similar schools in Connecticut, recommendations to optimize space use with a clear distinction between types will also be determined by prioritizations discussed between the client and BV. The general mission is to identify and provide the delta of what spaces are currently being utilized as verses what is needed to currently meet educational specs and requirements. Space utilization and occupancy will be determined by the needs, mission, intentions, and regulatory requirements of the school district so they can determine specific functional spaces related to the capacities of the size and design of the area.

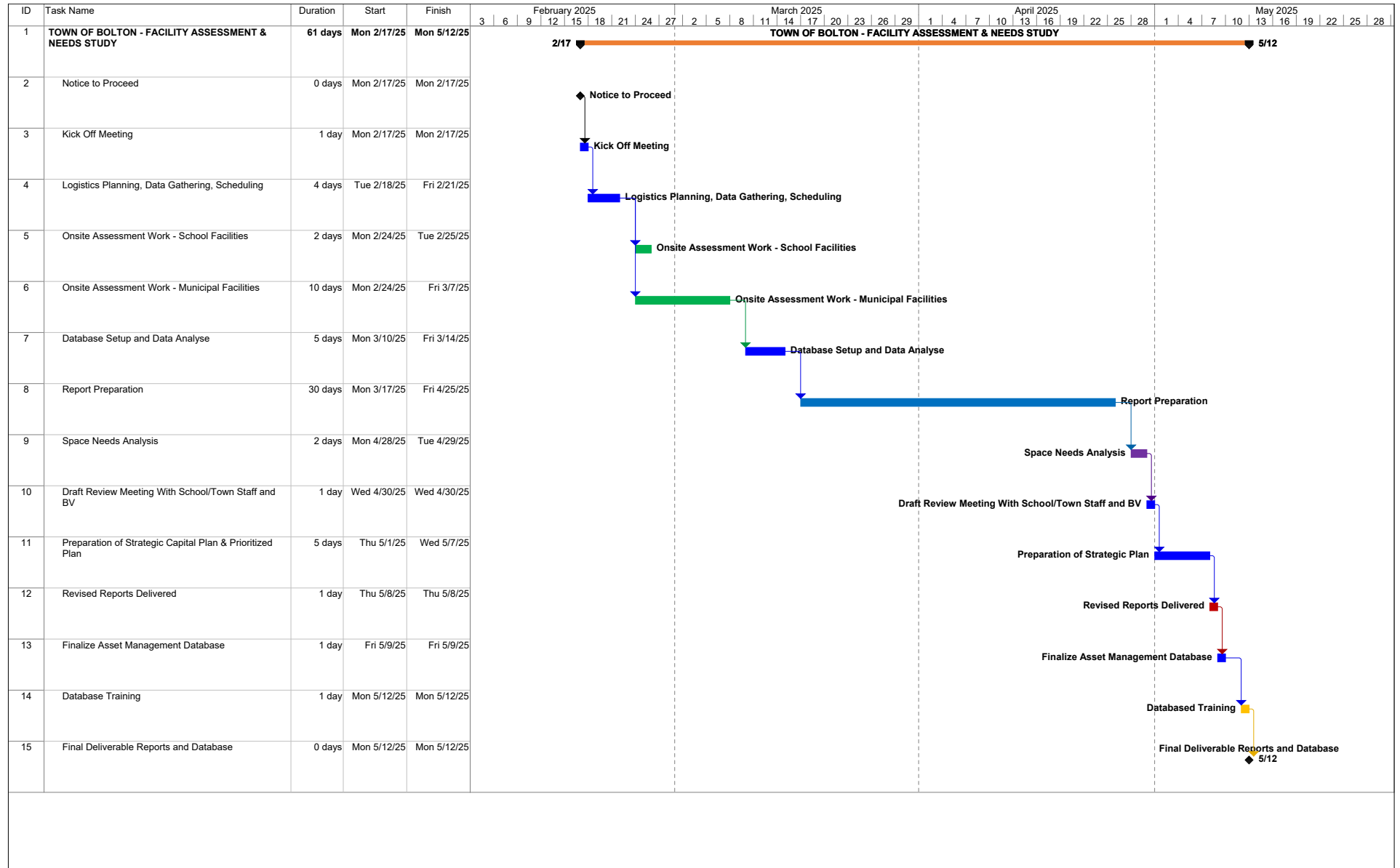
## Management Plan

The following section outlines our project management approach.

- 1. PROGRAM MANAGER** - BV will have a dedicated Program Manager as the single point of contact for coordination of work throughout the contract term. The Program Manager will be assisted by a logistics team who will be responsible for confirming each day's site visits. The Program Manager will conduct regular progress meetings to review each week's upcoming schedule and to review any issues identified in the prior week's work.
- 2. KICKOFF AND PILOT** - The Program Manager and the Project Executive will ensure the work meets all requirements of the RFP. At the kickoff meeting—the first meeting after award—BV will walk through the entire scope of work with the Client's project team. Where scope of work items are unclear or ambiguous, the team will consult with the Client and a clarifying memo will become part of the project record. During the kickoff, sample deliverables will be reviewed and tentatively agreed upon. In order to ensure clarity on the scope, a pilot project will be scheduled in the first week after the kickoff. The pilot is an opportunity for us to prepare our team and calibrate our field process. More importantly, it gives us an opportunity to deliver a report for review that meets the full scope of work. The Client will be given an opportunity to review and comment on this deliverable, and once all parties are in agreement the field assessments will begin. We will deliver reports for review as they are completed.
- 3. SCHEDULE** - BV will ensure the work is finished on schedule by preparing a complete project schedule. We will update the schedule weekly. One issue that can impact the schedule is having access to the buildings to be assessed. We will schedule 2 weeks out with any required notifications to building staff—and 48 hours in advance of each assessment we will confirm with building staff and escorts.
- 4. QUALITY** - We will apply our 5-point quality plan—explained on the next page—to ensure quality during all phases of the project.
  - a. Overall project technical review:** Includes scope review—review of field instructions consistent with the scope—review of existing reports and information prior to field work commencing.
  - b. Initial Report reviews:** Review by senior staff of each report prior to submission of draft. BV will have dedicated review staff working solely on report reviews in order to ensure consistency in results.
  - c. Quality Assurance of Field work:** The program manager will ensure a sample of sites are reviewed and compared to submitted results.
  - d. Database Validation:** Aggregated results of the field work will be reviewed, and anomalies identified will be flagged for additional review. This insures consistency across the entire portfolio and can often identify incorrect cost estimates, or areas where field observations are not correctly identified in the reports.
  - e. Final Quality Review:** Before final reports are delivered, a final review of each report will be done by a senior manager dedicated to the project.
- 5. TEAM RESOURCES** - BV will have a dedicated Program Manager responsible for managing all day-to-day activities of the team. If it is necessary to replace a team member during the project, the Program Manager will submit resumes to the Client for approval prior to any field activities for additional field staff.
- 6. COMMUNICATION** - BV understands communication is one of the keys to a successful project. We will establish a weekly meeting time at the project kickoff. Notes will be taken and submitted the same day as the weekly meeting. If issues are encountered in the field, they will be communicated on the same day and summarized in the weekly report.
- 7. RISK IDENTIFICATION & MANAGEMENT** - Our field staff are trained to communicate if they feel there is any situation on site that puts them at risk and will communicate those to the Program Manager. These typically involve identifying confined space requiring personal protective equipment, ladder safety, and safe procedures for roof inspections.

# Proposed Schedule

Bureau Veritas has the ability and resources to complete the Facility Condition assessments in a timely manner. The following details our proposed timeline to complete the project. This schedule is open to negotiations between the client and BV.





## 2. FIRMS BACKGROUND AND EXPERIENCE

### Profile

Bureau Veritas Technical Assessments LLC (“Bureau Veritas” or “BV”) is a professional services consulting firm providing comprehensive architectural, engineering, energy, and environmental solutions. Our team includes over 800 building professionals nationwide, including Registered Architects, Professional Engineers, Certified Energy Managers, Project Managers, Environmental Professionals, Building Systems Consultants, and Code Compliance Experts.

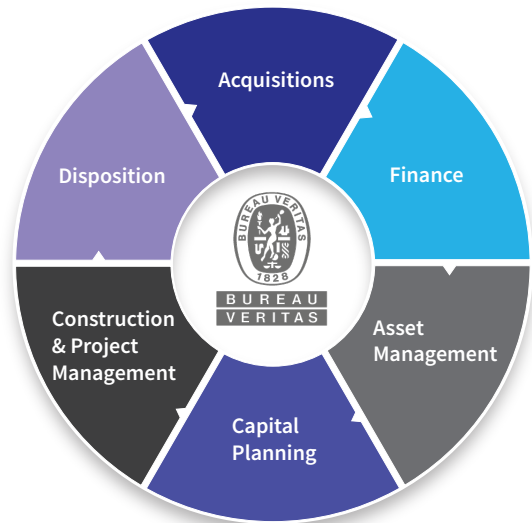
Annually, Bureau Veritas conducts thousands of assessments for Multifamily, Commercial, Industrial, Government, and Educational clients. Having successfully completed billions of square feet of building assessments, we have developed a proven and efficient methodology for the performance of field assessments and data collection.

Bureau Veritas’ recommendations are based on knowledge of property conditions, life-cycle analysis, regulations, and client objectives. Bureau Veritas’ subject matter expertise and understanding of buildings, parks, and property sites forms the foundation on which we team with clients to create and implement facility and portfolio management solutions.

### ASSET MANAGEMENT SERVICES

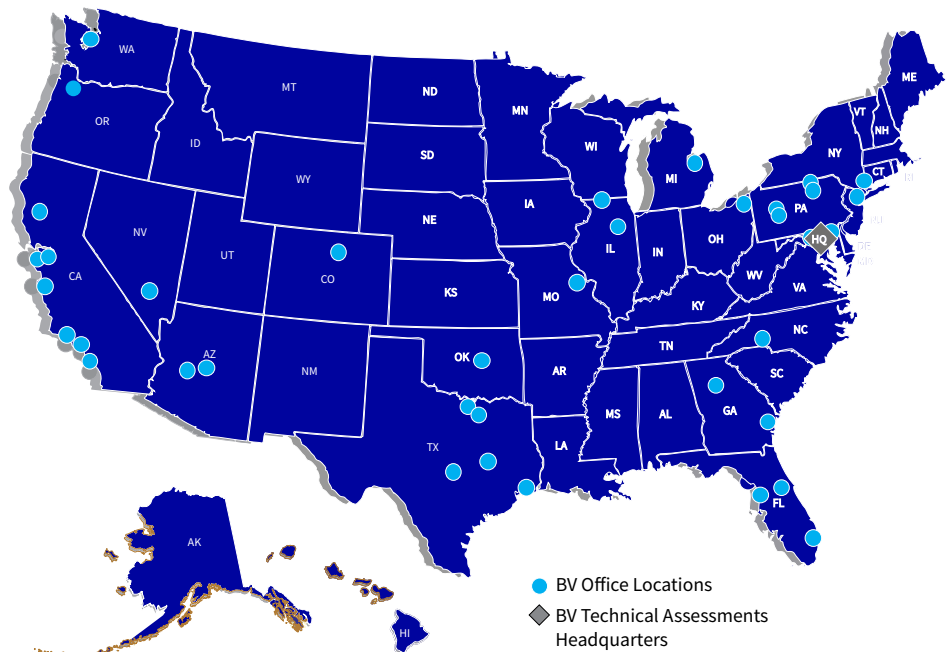
- Facility Condition Assessments
- Capital Planning Reports
- Accessibility Compliance
- Equipment and Asset Inventory
- Barcoding, QR Coding, and Tagging
- CMMS Consulting
- Preventive Maintenance Plans
- Space Analysis Studies
- Energy Audits and Modeling
- Commissioning (Cx and Rx)
- Construction Monitoring
- Project Management
- Plan and Document Review

### What We Do



### Company Information

|                 |   |
|-----------------|---|
| Company:        | Bureau Veritas Technical Assessments LLC  |
| Year Founded:   | 1828  |
| Headquarters:   | 6021 University Boulevard, Suite 200<br>Ellicott City, MD 21043                             |
| Project Office: | New Haven, CT   |
| Contact:        | <b>Cheyenne Irby</b><br>Associate Vice President  |
| Telephone:      | <b>(410) 533-6988</b>   |
| Email:          | <b><a href="mailto:Cheyenne.Irby@bureauveritas.com">Cheyenne.Irby@bureauveritas.com</a></b> |
| Website:        | <a href="http://bvna.com">bvna.com</a>  |



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## Relevant Experience

Annually, BV assesses thousands of properties for clients similar to the properties in the Town of Bolton, and has developed a proven and efficient methodology for our assessments and data collection. This project is of interest to Bureau Veritas as we have completed projects similar to the scope that the Town has outlined and BV believes we can efficiently execute in a timely manner. Bureau Veritas has over 200 years of experience that includes facility condition assessments, energy audits, and capital improvement planning throughout the United States and globally, and we believe the Town will benefit by working with us. BV completes an average of 4,000 projects in a year with hundreds in flight nationally at any given moment; all projects currently and within the last 5 years have been executed within the proposed timeframe and within budget; a more extensive list can be generated, and additional references can be provided by request.

| Client Name                              | State      | Services   | Completion |
|--|------------|--|------------|
| City and Schools of Stamford             | CT         | Facility Condition Assessment, Inventory                           | Ongoing    |
| Milford Public Schools                   | CT         | Facility Condition Assessment, Inventory                           | Ongoing    |
| Town of Berlin                           | MA         | Facility Condition Assessment, Inventory                           | Ongoing    |
| Michigan Department of Education         | MI         | Facility Condition Assessment & Energy Audit                       | Ongoing    |
| Newtown Public Schools                   | CT         | Facility Condition Assessment                                      | Ongoing    |
| Town of Oak Bluffs                       | MA         | Facility Condition Assessment, Inventory                           | 2024       |
| Rhode Island Department of Education     | RI         | Facility Condition Assessment & Energy Audit                       | 2024       |
| City of Attleboro                        | MA         | Facility Condition Assessment, Barcoding, & Preventive Maintenance | 2024       |
| State of Vermont                         | VT         | Facility Condition Assessment & Energy Audit                       | 2024       |
| City of Burlington                       | VT         | Facility Condition Assessment, Sidewalk Assessment                 | 2024       |
| State of Connecticut Military Department | CT         | Facility Condition Assessment                                      | 2024       |
| PSEG                                     | CT, NY, NJ | Facility Condition Assessment & Energy Audit                       | 2024       |
| New Britain Consolidated School District | CT         | Facility Condition Assessment                                      | 2023       |
| Boston Public Schools                    | MA         | Facility Condition Assessment                                      | 2023       |
| State of Delaware                        | DE         | Facility Condition Assessment                                      | 2022       |
| Arlington County                         | VA         | Facility Condition Assessment, Sidewalk Assessment                 | 2022       |
| City of Toledo                           | OH         | Facility Condition Assessment & Energy Audit                       | 2022       |
| City of Danbury                          | CT         | Facility Condition Assessment                                      | 2022       |
| New Haven Housing Authority              | CT         | Physical Needs Assessment & Energy Audit                           | 2022       |
| Town of New Bedford                      | MA         | Facility Condition Assessment                                      | 2021       |
| Town & Schools of Barnstable             | MA         | Facility Condition Assessment, Barcoding, & Preventive Maintenance | 2021       |
| Chester County                           | PA         | Facility Condition Assessment & Energy Audit                       | 2021       |
| City of Ferndale                         | MI         | Facility Condition Assessment & Energy Audit                       | 2021       |
| City of Waterbury                        | CT         | RAD Physical Condition Assessment & Energy Audit                   | 2021       |
| City & Schools of Stamford               | CT         | Facility Condition Assessment                                      | 2021       |



## PROJECT PROFILE

# VERMONT DEPARTMENT OF BUILDINGS AND GENERAL SERVICES

FACILITY CONDITION ASSESSMENT, ENERGY AUDIT

Bureau Veritas (BV) was selected in 2013 on this 5-year contract to perform Facility Condition Assessments for the State of Vermont. The work included facility condition assessments and Level II Energy Audits on all State-owned buildings (excluding Waterbury State Office Complex); a total of 285 buildings with 3,590,000 gross square feet, and a replacement value of \$785,000,000; all correctional facilities, a total of 690,000 gross square feet, and an update to the Vermont Veterans' Home Report of 2006 in phases over 4 years.

Our team organized the property assessment schedule and coordinated with the State regional team to perform assessments efficiently without disrupting facility activities. The assessments included complete visual inspections of facility components (exterior systems, interior finishes, fire/life safety systems, accessibility issues, MEP Systems, and security systems). We described facility deficiencies, provided corrective action for each deficiency, and established prioritization standards to characterize deficiencies. We also performed a Level II energy audit for each facility, and made recommendations for Energy Conservation Measures (ECMs).

BV's database included immediate/short term repairs, a 20-year capital plan with cost estimates, digital full color photographs of each property, and the Facility Condition Index (FCI) for each facility. An active database was provided to the State with property descriptions, breakdown of building components utilizing the Uniformat classification, and the capital plan presented as potential future projects.

BV was awarded the statewide contract to perform energy audits again in 2021 and 2023.

In 2022, BV was awarded a multi-year contract to complete rolling facility condition re-assessments of all state facilities, as well as new assessments of all Public Schools throughout the State.

### LOCATION

Vermont

### SERVICE

Facility Condition Assessment  
Energy Audit  
Software Database Solution  
Capital Planning  
Preventative Maintenance

### SIZE

3.6 MM SF  
285 Facilities

### FACILITY TYPE

Tranist, Highway, & Port  
Authorities, Fire & Police  
Stations, Courthouses,  
Correctional Facilities,  
Agricultural Facilities, Admin  
Offices, Warehouses & Garages,  
Hospitals

### COMPLETION

2018-Ongoing

### REFERENCE

Joe Aja, Director  
Buildings & General Services  
State of Vermont  
2 Governor Aiken Avenue  
Montpelier, VT 05633-5801  
(802) 272-4949  
joe.aja@vermont.gov



## PROJECT PROFILE

# MILFORD PUBLIC SCHOOLS

## FACILITY CONDITION ASSESSMENT

Bureau Veritas (BV) was selected to perform comprehensive facility condition assessments for 14 schools, approximately 1.2 million square feet for Milford Public Schools. The facilities include academic, administrative, athletic, and support facilities. The goal of the assessment was to provide a plan to the School District to address current and future maintenance and repair needs, addressing by highest priority.

A team of professionally licensed architects and engineers completed a visual assessment, identifying and documenting current facility condition deficiencies. For each of the deficiencies identified, the team recommended corrections and provided cost estimates. Our team also provided a forecast of future facility renewal costs. The assessment determined what resources are necessary to maintain the operability, suitability, and value of the physical assets of the School system.

The BV team provided an assessment report for each facility, including project location drawings and digital photographs of all deficiencies. BV also implemented AssetCALC™, our non-proprietary capital asset management database for collecting and uploading the data into a CMMS system. AssetCALC™ enables the school district to generate reports to address maintenance backlog, funding projections, and life cycle forecasting. The information from AssetCALC™ was mapped back to a budget model developed by the School District.

Current education utilization for the schools were assessed; This included measuring the space and documenting the current use and classification of the space by “Type-of-Use” for educational activities. Space utilization metrics and occupancy specifications were determined based on standards employed by the State of Connecticut Department of Education and Local School Board goals. BV evaluated enrollment projection to assess whether current school programming are sufficient to support educational programming needs for the next 10 years. The Space utilization and occupancy analysis results will help outline the needs, mission, intentions, and regulatory requirements of the school district so they can determine specific functional spaces related to the capacities of the size and design of schools.

### LOCATION

Milford, CT

### SERVICE

Facility Condition Assessment  
Equipment Inventory  
Space Needs Analysis  
Demographic Study  
Asset Management Database

### SIZE

14 Public Schools  
1.2 Million SF

### FACILITY TYPE

8 Elementary Schools  
2 Middle Schools  
2 High Schools  
1 Alternative School

### COMPLETION

2024

### REFERENCE

Sean Brennan  
Assistant Superintendent  
Milford Public Schools  
70 West River Street  
Milford, CT 06460  
(203) 301-5655  
sbrennan@milforded.org





## PROJECT PROFILE

# CITY OF FERNDALE

## FACILITY CONDITION ASSESSMENT AND ENERGY AUDIT

BV performed the City of Ferndale's first ever assessments to help plan for the future of their building portfolio. The City engaged with BV to help get an understanding of their current needs, as well as to create a 5 to 10 year plan centered around efficient use of space. BV's assessments will help determine which buildings will require updating, renovations, or replacement.

BV understood that a key factor in performing FCAs for the City was the evaluation of physical needs and accurate forecasting for capital repair and replacement budgets. Pre-emptive measures to manage maintenance budgets and programs are essential in ensuring the elimination of potential issues, which can range from deferred maintenance, or premature replacement of building systems that can prove costly.

During the Facility Assessments, BV included an Energy Efficiency review of the buildings' construction features, historical energy and water consumption and costs, review of the building envelope, HVAC equipment, heat distribution systems, lighting, and the buildings' operational and maintenance practices. These findings were integrated into the facility assessment data by reviewing traditional and green alternatives for the replacement of assets. A payback analysis was evaluated to determine if energy conservation measures were practical.

Additionally, BV conducted a space utilization and occupancy survey that provided an overall understanding of how spaces were being used throughout each facility. This data allows the City to evaluate and manage their facilities and determine the most appropriate use of each space to align with the City's goals. In addition to providing best use practices from similar facilities, BV also made recommendations to optimize space use based on the prioritizations discussed between the City department directors and BV.

The general mission was to identify and provide recommendations for optimizing buildings areas that are underutilized or that can be better utilized. Space utilization and occupancy was determined by the needs, mission, and intentions of the City departments. The City will use this information to identify specific functional spaces by size and design.

### LOCATION

Ferndale, MI

### SERVICE

Facility Condition Assessment  
Space Analysis  
Energy Audit

### SIZE

2 MM SF  
73 Buildings

### FACILITY TYPE

City Hall  
Public Works  
Police and Fire Stations  
Storage Garages  
Community Center  
Parks Buildings  
Museum

### COMPLETION

2021

### REFERENCE

James Jameson, Facilities  
Manager  
City of Ferndale  
521 E. Cambourne Street  
Ferndale, MI 48220  
(743) 383-3328  
jjameson@ferndalemi.gov



**BUREAU  
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## PROJECT PROFILE

# TOWN OF OAK BLUFFS

## FACILITY CONDITION ASSESSMENT W/ INVENTORY

Bureau Veritas Technical Assessments LLC (BVTA) assessed the condition of public buildings, sites, K-12 Public Schools, Harbor & Dock facilities, and park facilities for the Town of Oak Bluffs located on Martha's Vineyard Island Massachusetts.

We identified capital needs, present/future maintenance, and repair work with associated costs. We worked with the Town to determine a protocol to access available drawings/reports to review available construction/maintenance documents (as-built drawings, specifications, maintenance logs). We collected base data on each building, confirmed square footage, generated an associated facility condition index and stored data in a facility condition assessment information system.

The purpose of the project is to perform a detailed assessment of the facilities' condition, forecast maintenance requirements, and develop and deliver a fully populated CMMS database containing facility systems and building components. The assessment includes an evaluation of site improvements, architectural and structural systems, mechanical and plumbing systems, as well as exterior architectural elements. Additionally BV created a preventative maintenance schedule that is used to plan and maintain serviceable building and HVAC equipment or components.

BV prepared detailed narrative reports of each building that discussed deferred maintenance, deficiencies, observational ADA evaluations, and lifecycle replacement requirements.

BVTA delivered an asset management database which included square footage delineations, immediate/ short-term repairs and 20-year capital estimates, and digital full color photographs of each property. The database provided a property description and improvements and comments on observed conditions. We provided assessment results in electronic and hard copy format.

### LOCATION

Oak Bluffs, MA

### SERVICE

Facility Condition Assessment  
Equipment Inventory  
Preventive Maintenance  
Consulting  
Capital Planning Software  
Work Order Software  
Implementation

### SIZE

15 Buildings  
239,687 sf

### FACILITY TYPE

K-12 Public Schools  
Town Hall  
Libraries  
Fire Stations  
Museums  
Police  
Waste / Water Treatment  
Parks & Rec  
Harbor and Dock Facilities  
Public Restrooms

### COMPLETION

2024

### REFERENCE

Wendy Brough  
Assistant Town Administrator  
PO Box 1327  
Oak Bluffs, MA 02557  
(508) 693-3554  
wbrough@oakbluffsma.gov





## PROJECT PROFILE

# DELAWARE COUNTY

## FACILITY CONDITION ASSESSMENT, ENERGY AUDIT

Bureau Veritas Technical Assessments LLC (BV) is currently completing a county-wide facility condition assessment and energy study for Delaware County, Pennsylvania. The County's goal is a comprehensive understanding of all facilities in its portfolio for future capital and preventative maintenance planning and to create an actionable energy and sustainability initiative. The end goal is to use the data from the assessments and studies to create a County Master Plan that will dictate the direction of the County's portfolio of facilities over the next 10 years.

BV assembled a multi-disciplined team of professional engineers, registered architects, certified energy managers, and Capital & Master Planners to conduct the assessments and further studies that include: carbon emissions inventory, preventative maintenance planning, and capital planning exercises. All data from the assessments and studies will go into the County's Asset Management Database, AssetCALC™, for capital planning forecasting. The data will eventually be exported to a CMMS solution to assist the County in their preventative maintenance efforts.

The assessment includes an evaluation of site improvements, architectural and structural systems, mechanical and plumbing systems, exterior architectural elements, and ADA issues. BV also created reserve studies and prioritized plans for the replacement, improvement, or remedial actions associated with all evaluated assets. BV created a custom cost estimating database for all assets that caters to the County's region and historical costs from vendors and suppliers; this has provided the County with targeted and detailed estimating figures.

BV is not only planning the efforts to maintain the County's facilities into the future but taking into account how to do so in a sustainable and energy-conscious manner. BV is taking an inventory of the County's carbon emissions and conducting energy studies to evaluate effective measures that complement the County's Sustainability Goals and observe investment considerations vs saving ratios.

The County has never completed an assessment of this magnitude before, and expects to create a large pool of information to preserve historical knowledge about the facilities as well as provide detailed, accurate, and essential information for decision intelligence. This project supports appropriate and forthcoming planning which will allow all facilities to be serviceable and accessible.

### LOCATION

Delaware County, Pennsylvania

### SERVICE

Facility Condition Assessment  
Energy Audit  
Carbon Emissions Inventory  
Equipment Inventory  
Preventative Maintenance Plan  
Capital Planning Software & Database

### SIZE

1.4 MM SF  
43 Buildings, 22 Parks

### FACILITY TYPE

Courthouses, Correctional Facilities  
Parks & Recreation  
Public Works, Warehouses  
Libraries, Historic Buildings  
Senior Living Facilities  
Healthcare Campus  
Emergency Facilities

### COMPLETION

2022

### REFERENCE

Francine Locke, MS  
201 West Front Street  
Media, PA 19063  
(610) 891-4688  
LockeF@co.delaware.pa.us

### 3. KEY STAFF AND RESUMES

Bureau Veritas' Team includes Professional Engineers and with an average of over 25 years of relevant experience. These professionals develop and write the assessment report and coordinate logistics and document collection for each assessment. BV also has an internal information technology group that supports the development of field data collection programs and client database applications.

#### **Cheyenne Irby | Project Executive**

Mr. Irby will oversee all contractual aspects of the project and be available to meet with the Client for the duration of the project on an as-needed basis. He will have primary responsibility for defining the scope of engagement, and will meet regularly with Bureau Veritas' Program Manager and Assessment Team to assure that the Town's needs are being met, and that the project is adequately staffed, running smoothly, and on schedule.

#### **Andy Hupp | Program Manager**

Mr. Hupp will be the primary point of contact for the Town throughout the duration of the project. He will work with the Assessment Team and the Town to assure project success. He will be responsible for the assessment team's overall performance, delivery of the project, and will work with Town staff to develop the implementation plan based on the results.

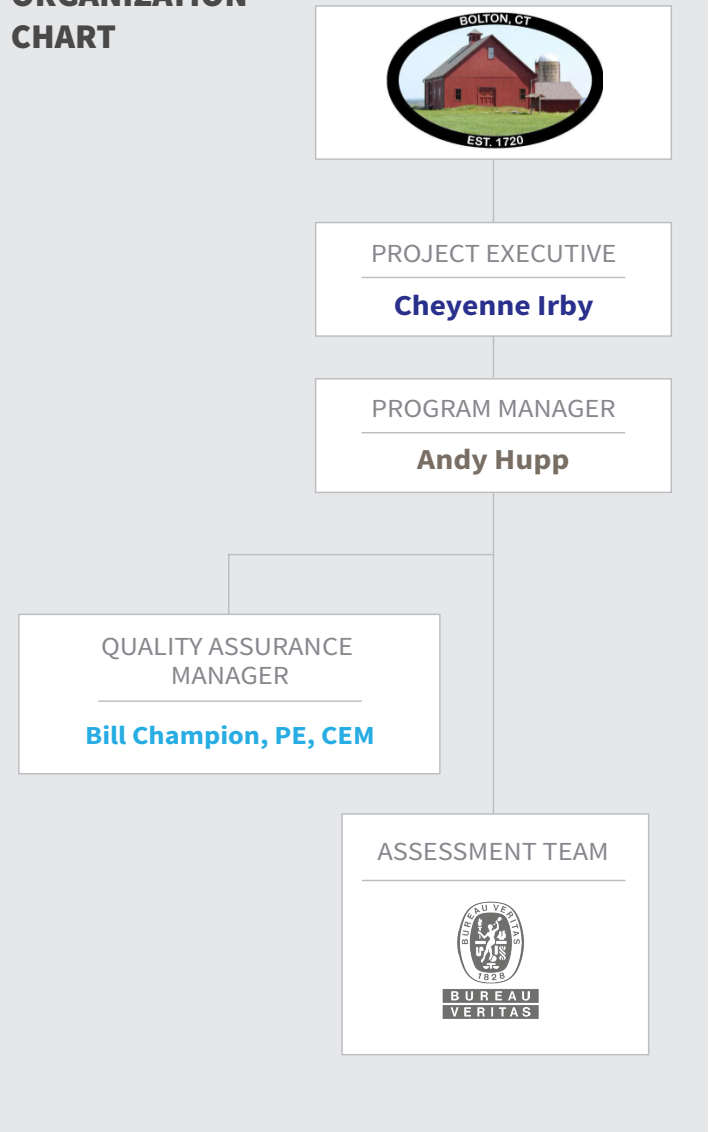
#### **Bill Champion, PE, CEM | Quality Assurance Manager**

Dr. Champion will oversee the project, assuring technical, process, and content quality. He will have direct management responsibility for all technical personnel, which will allow for quick and effective implementation of quality assurance measures both at inception and throughout the duration of the project.

#### **Assessment Team**

The Assessment Team is comprised of industry professionals with direct experience in conducting Facility Condition Assessments. They will observe and describe building systems and components, identify physical deficiencies, and formulate recommendations to remedy the deficiencies.

### PROJECT ORGANIZATION CHART







# CHEYENNE IRBY

## PROJECT EXECUTIVE

Mr. Irby is a trained Architect with experience in the public housing, K-12, higher education, government, and retail industries, as well as facilities with specialty programming. He has experience with consulting and implementing facility services such as operational management, capital planning, feasibility studies, facility management, and asset management. As Project Executive, he is responsible for overseeing all contractual aspects of the project. He will have primary responsibility for defining the scope of engagement, and will meet regularly with BV's Program Manager and Assessment Team to assure that the client's needs are being met, and that the project is adequately staffed, running smoothly, and on schedule.

## PROJECT EXPERIENCE:

### Town of Weymouth, MA

Facility Condition Assessment w/ Inventory

### Town of Wakefield, MA

Facility Condition Assessment

### City of Danbury, CT

Facility Condition Assessment w/ Inventory

### Vermont Department of Building and General Services, VT

Facility Condition Assessment

### City of Burlington, VT

Facility Condition Assessment

### Town of Westerly, RI

Facility Condition Assessment, Inventory

### City of Providence, RI

Facility Condition Assessment, Inventory

### Town of Atkinson, NH

Building Condition Assessments

### City of Frederick, MD

Energy Audit

### City of Lee's Summit, MO

Facility Condition Assessment & Energy Audit

## YEARS OF EXPERIENCE: 15



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## Education

Master of Business, University of Maryland  
MS, Real Estate Development & Architecture, University of Maryland  
BS, Architecture, University of Maryland



## ANDY HUPP

### Program Manager

Mr. Hupp has been the Program Manager for government, educational, and private sector clients. He supervises teams of architects, engineers, and facility professionals in conducting facility condition assessments, physical needs assessments and energy audits. As Program Manager, he is responsible for delivering results, and is the main point of contact for the client throughout the project.

### PROJECT EXPERIENCE:

#### **Town of Mansfield, CT**

Facility Condition Assessment, Energy Audit & Facilities Master Plan

#### **Central Vermont Unified School District, VT**

Facility Condition Assessment, Inventory

#### **State of Vermont, VT**

Facility Condition Assessment & Energy Audit

#### **City of Reading, PA**

Facility Condition Assessment

#### **City of Columbus, OH**

Facility Condition Assessment

#### **Stafford County Public Schools, VA**

Facility Condition Assessment

#### **Culpeper County Public Schools, VA**

Facility Condition Assessment, Inventory

#### **Round Lake Area Schools, IL**

Facility Condition Assessment

#### **Joliet Public School District 86, IL**

Facility Condition Assessment

#### **Skokie School District 68, IL**

Facility Condition Assessment

#### **Rich Township District 227, IL**

Facility Condition Assessment

#### **Swartz Creek Community Schools, MI**

FCA, Inventory, Barcoding, PM Schedule

#### **Ann Arbor Public Schools, MI**

Facility Condition Assessment, Inventory

#### **Webster Groves School District, MO**

Facility Condition Assessment, Inventory

### YEARS OF EXPERIENCE: 25



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### Education

Bachelor of Science, Architectural Engineering, University of Cincinnati



## BILL CHAMPION, PhD, PE, CEM

### QUALITY ASSURANCE / QUALITY CONTROL

Dr. Champion is a Professional Mechanical Engineer, and certified Energy Manager with 28 years of experience in the higher education, government, retail, industrial, and K-12 Education industries. As Quality Assurance Manager, he is responsible for technical review of deliverables. He has extensive experience with projects of similar scope for K-12 education clients.

#### PROJECT EXPERIENCE:

##### **City of Cambridge, MA**

Facility Condition Assessment & Inventory

##### **City of Somerville, MA**

Facility Condition Assessment & Inventory

##### **Town of Weymouth, MA**

Facility Condition Assessment & Inventory

##### **City of Saco, MA**

Facility Condition Assessment & Inventory

##### **State of Vermont, VT**

Facility Condition Assessment

##### **PSEG, NJ, NY, CT**

Facility Condition Assessment & Energy Audit

##### **City of Schenectady, NY**

Facility Condition Assessment & Inventory

##### **City of Hoboken, NJ**

Facility Condition Assessment & Inventory

##### **City of Linden, NJ**

Facility Condition Assessment & Inventory

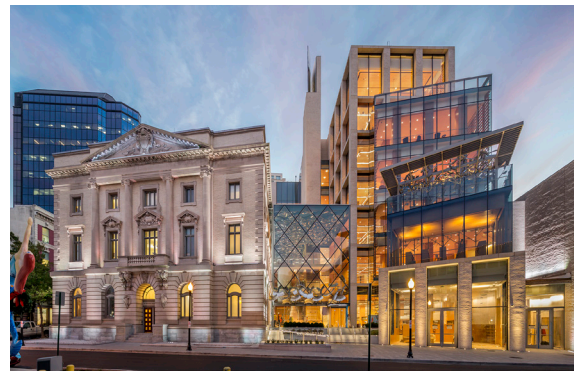
##### **Montgomery County, MD**

Facility Condition Assessment & Energy Audit

##### **City of Columbus, OH**

Facility Condition Assessment

#### YEARS OF EXPERIENCE: 30+



#### Education

PhD, Civil Engineering, Univ of MD  
MBA, University of Rochester  
MS, Mechanical Engineering, SUNY  
BS, Mechanical Engineering, SUNY

#### Registration

PE | MD #40120; NY #08786; DC #PE906172  
Certified Energy Manager #16649



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## SHAWN O'DONNELL ASSESSMENT TEAM LEAD

### PROJECT EXPERIENCE:

**The Residence of Orchard Grove, MA**  
Facility Condition Assessment

**PGA Tour Superstore, MA**  
Facility Condition Assessment

**Union Grove Apartment Homes, NJ**  
Facility Condition Assessment

**Beyonne Medical Center, NJ**  
Energy Audit

**Hudson Regional Hospital, NJ**  
Energy Audit

### YEARS OF EXPERIENCE: 16



#### Education

Bachelors of Architecture, Boston Architectural College  
Associate in Applied Science, Johnson College

#### License & Certification

Registered Architect | MA 50995



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## DAVID HARRELL, PE, CEM ASSESSMENT TEAM

### PROJECT EXPERIENCE:

**City of New Bedford, MA**  
Facility Condition Assessment w/ Inventory

**Town of Wakefield, MA**  
Facility Condition Assessment w/ Inventory

**City of Danbury, CT**  
Facility Condition Assessment

**State of Rhode Island, RI**  
Facility Condition Assessment

**Chesterfield County, VA**  
Facility Condition Assessment

### YEARS OF EXPERIENCE: 22



#### Education

Master of Engineering, University of Maryland  
BS, Engineering, University of south Carolina

#### License & Certification

Professional Engineer | MD #40120; NY #08786; DC #PE906172  
Certified Energy Manager | 16649





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## MARY ENDSLEY, RA ASSESSMENT TEAM

### PROJECT EXPERIENCE:

**Boston Public Schools, MA**  
Facility Condition Assessment & Energy Audit

**Town of Wrentham, MA**  
Facility Condition Assessment

**Town of Hull, MA**  
Facility Condition Assessment

**Town of Bourne, MA**  
Facility Condition Assessment

**State of Rhode Island, RI**  
Facility Condition Assessment

### YEARS OF EXPERIENCE: 23



#### Education

Bachelor of Architecture, NY Institute of Technology

#### License & Certification

Registered Architect | NY 029419-1



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## LIA KNOWER ASSESSMENT TEAM

### PROJECT EXPERIENCE:

**Town of Oak Bluffs, MA**  
Facility Condition Assessment

**Town of Berlin, MA**  
Facility Condition Assessment

**State of Rhode Island, RI**  
Facility Condition Assessment

**Chesterfield County, PA**  
Facility Condition Assessment

**Bernards Township, NJ**  
Facility Condition Assessment

### YEARS OF EXPERIENCE: 20



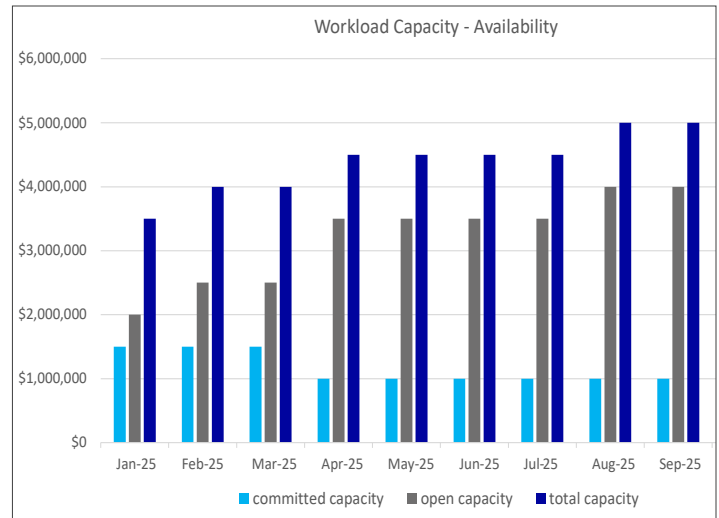
#### Education

BS, Communications, Southern Oregon University

## Availability and Capacity

Bureau Veritas has maintained itself as a viable, professional assessment services corporation. Bureau Veritas is fully staffed to manage any size project load, including simultaneous multiple site projects. Our field staff can provide a commitment of time suitable to the needs of the proposed County program. The proposed project would be a significant one for Bureau Veritas, and we have the in-house resources to fully staff this project without program disruption or cost impact.

Bureau Veritas has 800 staff and a dedicated Asset Management team. The regional team usually has approximately three to five concurrent assessment projects engaged that range from 400,000 SF to 1,000,000 SF. For example, currently we have three School Districts, one University, and three Municipal projects concurrently in progress. Bureau Veritas has a very scalable staff and can provide resources from one team to over ten teams on a project.



Availability of all key personnel is included in the chart below.

| Key Personnel   | Project Role      | Years of Exp | Certification / Registration | Availability to Project | Municipal FCA Experience | CMMS Experience |
|-----------------|-------------------|--------------|------------------------------|-------------------------|--------------------------|-----------------|
| Cheyenne Irby   | Project Executive | 15           | -                            | 20%                     | ✓                        | ✓               |
| Andy Hupp       | 25                | 25           | -                            | 80%                     | ✓                        | ✓               |
| Bill Champion   | QA/QC             | 25           | PhD, PE, CEM                 | 30%                     | ✓                        | ✓               |
| Shawn O'Donnell | Assessment Team   | 16           | -                            | 100%                    | ✓                        | ✓               |
| David Harrell   | Assessment Team   | 22           | PE, CEM                      | 100%                    | ✓                        | ✓               |
| Mary Endsley    | Assessment Team   | 23           | RA                           | 100%                    | ✓                        | ✓               |
| Lia Knower      | Assessment Team   | 20           | -                            | 100%                    | ✓                        | ✓               |

## 4. PROPOSED COST

The following fees include all costs associated with travel, lodging, car rental, food, tools, equipment, and all other miscellaneous expenses applicable to the work related to this project.

| SERVICES                      | FEE (Fixed Price) |
|-------------------------------|-------------------|
| Facility Condition Assessment | \$65,000.00       |

## HOURLY RATES

| Team Role                  | Hourly Rate (\$) |
|----------------------------|------------------|
| Project Executive          | \$190.00         |
| Program Manager            | \$140.00         |
| Project Manager I (PE/RA)  | \$120.00         |
| Project Manager II (PE/RA) | \$130.00         |
| Quality Control Manager    | \$135.00         |
| Technical Report Reviewer  | \$115.00         |
| Administrative             | \$80.00          |

BV will submit a monthly invoice inclusive of all services performed during that period. The per site fee will be established per the schedule of values provided at the program kick-off, and invoiced at the billing milestones stated below. Invoices will be payable within 30 days of receipt:

Completion of onsite assessments: 50% of per site fee  
 Delivery of Draft Reports: 45% of per site fee  
 Delivery of Final Reports: 5% of per site fee

Upon receipt of each monthly invoice, the amount due per billing milestone is fully collectible. Please forward payments to: Accounting Department, Bureau Veritas Technical Assessments LLC, PO Box 74007289, Chicago, IL 60674-7289 or contact BV-invoicing@BVNA.com to pay via credit card or to receive wiring instructions. Please ensure that BV Proposal #172564.24P or invoice number is clearly identified on all payments and correspondence for proper credit.

Please submit all draft comments to BV within 60 days of draft delivery. Unless otherwise communicated, BV will consider all drafts approved for finalization after 60 days, and the remaining balance due will be invoiced.