



**BUREAU
VERITAS**

CUMBERLAND COUNTY

COUNTY FACILITIES CONDITION ASSESSMENT (FCA) &
COMPUTERIZED MAINTENANCE MANAGEMENT SYSTEM (CMMS)

November 20, 2024

November 20, 2024



Cumberland County Facilities Department
Attn: Bill Trufant
142 Federal Street
Portland, Maine 04101

RE: Proposal for RFP: County Facilities Condition Assessment (FCA) &
Computerized Maintenance Management System (CMMS)

Dear Mr. Trufant:

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

Proven Experience | Facility Condition Assessments are one of the core services of Bureau Veritas. We have completed thousands of projects with more than 700 million square feet of space in the last five (5) years for Higher Ed, K-12, Public Housing, State and Local Government, and Parks and Recreation clients.

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:

- Town of Oak Bluffs, MA
- City of Cambridge, MA
- Town of Plymouth, MA
- Town of Falmouth, MA
- Town of Weymouth, MA
- Town of Wrentham, MA
- Town of Bourne, MA
- City of New Bedford, MA
- Town of Wakefield, MA
- City of Somerville, MA
- Town of Berlin, MA
- Town of Dennis, MA
- City of Exeter, NH
- City of Danbury, CT
- City of Hartford, CT
- City of Waterbury, CT
- City of Mansfield, CT
- City of Burlington, VT
- State of Vermont, VT
- City of Providence, RI

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 County 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 County. I am available at 410.533.6988 or via email at cheyenne.irby@bureauveritas.com to further discuss our qualifications.

Sincerely,

Cheyenne Irby
Associate Vice President

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1. COMPANY OVERVIEW

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

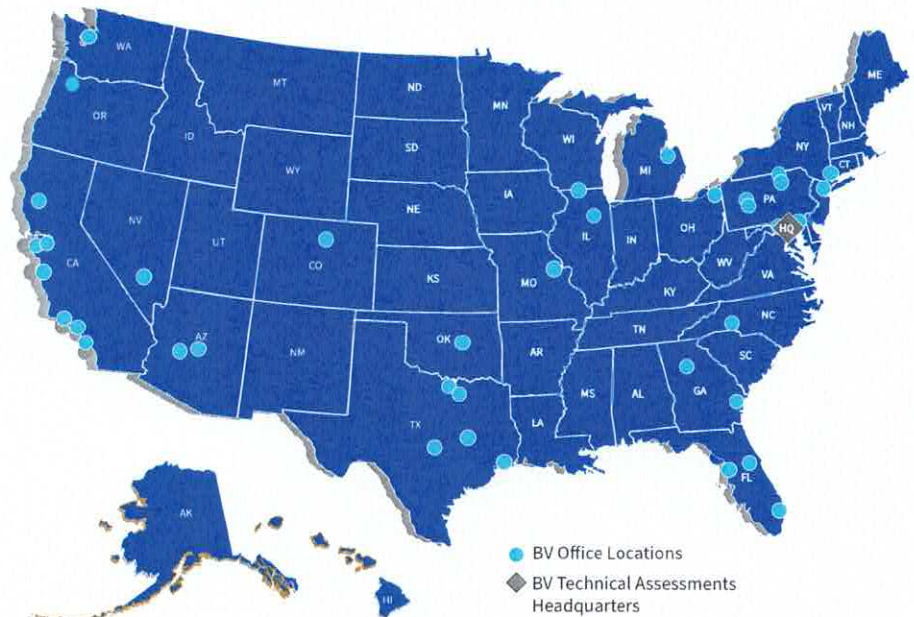
- Facility Condition Assessments
- CMMS Consulting
- Capital Planning Reports
- Accessibility Compliance
- Equipment and Asset Inventory
- Barcoding, QR Coding, and Tagging
- Preventive Maintenance Plans
- Space Analysis Studies
- Energy Audits and Modeling
- Commissioning (Cx and Rx)
- Construction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

What We Do



Company Information

Company:	Bureau Veritas Technical Assessments LLC
Year Founded:	1986
Headquarters:	6021 University Boulevard, Suite 200 Ellicott City, MD 21043
Project Office:	1 Distribution Center Cir #1 Littleton, MA 01460
Contact:	Cheyenne Irby Associate Vice President
Telephone:	(410) 533-6988
Email:	cheyenne.irby@bureauveritas.com



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Financial Stability

Bureau Veritas Technical Assessments LLC is part of a larger group, Bureau Veritas SA. Please note—BVSA is a 6 billion dollar public company trading on the Euronext-Paris with over 75,000 employees and thousands of offices across the globe. This link takes you directly to our financial reports:

<https://group.bureauveritas.com/investors/financial-information/financial-reports>

5 ACTIVITY REPORT Business review and results

5.2.8 RESULTS BY BUSINESS

CHANGE IN REVENUE BY BUSINESS

€ millions	2023	2022	Total	Growth		
				Organic growth	Scope	Currency
Marine & Offshore	455.7	418.3	+8.9%	+14.4%	-	(5.5)%
Agr-Food & Commodities	1,233.6	1,224.8	+0.7%	+5.7%	-	(5.0)%
Industry	1,249.5	1,181.0	+5.8%	+16.5%	(1.0)%	(9.7)%
Buildings & Infrastructure	1,753.3	1,664.0	+5.4%	+6.3%	+1.4%	(2.3)%
Certification	465.0	426.3	+8.6%	+12.4%	-	(3.8)%
Consumer Products	710.7	734.2	(3.2)%	(0.5)%	+3.1%	(5.8)%
TOTAL GROUP	5,867.8	5,650.6	+3.8%	+8.5%	+0.6%	(5.3)%

CHANGE IN ADJUSTED OPERATING PROFIT BY BUSINESS

€ millions	Adjusted operating profit			Adjusted operating margin					
	2023	2022	Change	2023	2022	Total change (bps)	Organic	Scope	Currency
Marine & Offshore	108.6	100.7	+7.8%	23.8%	24.1%	(24)bps	+94bps	-	(119)bps
Agr-Food & Commodities	184.0	176.0	+4.6%	14.9%	14.4%	+55bps	+70bps	-	(15)bps
Industry	174.8	139.1	+25.6%	14.0%	11.8%	+217bps	+250bps	+90ps	(43)bps
Buildings & Infrastructure	229.3	226.7	+0.3%	13.1%	13.7%	(63)bps	(70)bps	+120ps	(5)bps
Certification	88.0	81.4	+8.0%	18.9%	19.0%	(7)bps	+26bps	-	(33)bps
Consumer Products Services	145.5	176.2	(17.5)%	20.6%	24.0%	(355)bps	(258)bps	(51)bps	(45)bps
TOTAL GROUP	830.2	802.1	+3.1%	15.3%	16.0%	(11)BPS	+20BPS	+1BPS	(32)BPS

Marine & Offshore

The Marine & Offshore business was among the best performing businesses within the Group's portfolio in the full year 2023 with organic growth of 14.4% (including 13.4% in the fourth quarter) led by all geographies and activities:

- Double-digit organic revenue growth in New Construction (40% of divisional revenue), reflecting the solid backlog and acceleration of new order conversion over the year, boosted by sector trends across the shipping industry (renewal of the world's ageing fleet and decarbonization regulations). Activity from shipyards in China and South Korea was particularly strong in Q4.
- Double-digit organic revenue growth in the Core In-service activity (45% of divisional revenue), still led by a sustained high level of occasional surveys, especially on old ships, combined with price increases and the growth of the classed fleet. On December 31, 2023, the fleet classified by Bureau Veritas comprised 11,705 ships (up 0.8% on a yearly basis), representing 148.7 million of Gross Register Tonnage (GRT).

- Double-digit organic revenue growth for Services (15% of divisional revenue, including Offshore) was driven by the good commercial development of non-classification services, including consulting services related to energy efficiency.

Bureau Veritas' new orders reached 9.3 million gross tons at December 31, 2023, bringing the order book to 22.4 million gross tons at the end of the year, up 11.4% compared to 20.1 million gross tons at end 2022. It is composed of a variety of LNG-fueled ships, container ships and specialized vessels.

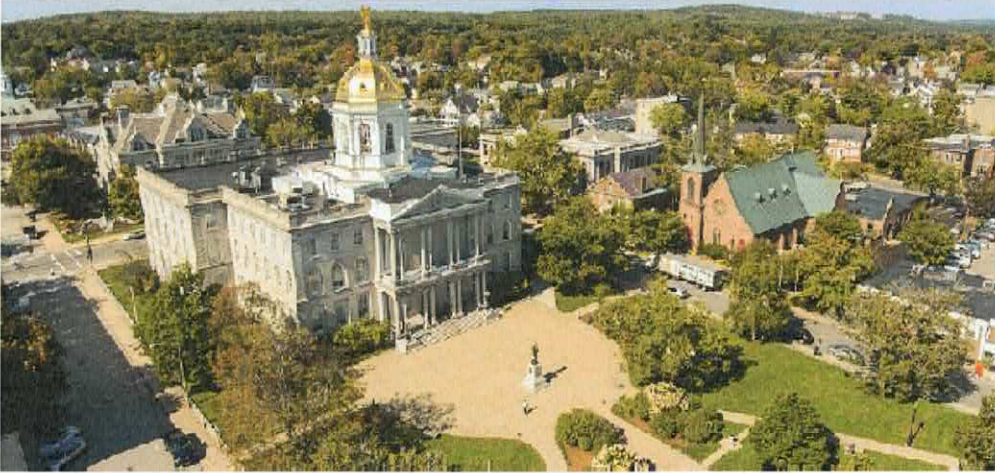
Marine & Offshore continued to focus on efficiency levers through digitalization and high added-value services. In September 2023, the Group announced a strategic partnership with OrbitMI, a New York-based maritime software company, formalized through Bureau Veritas Investment in OrbitMI. Aimed at accelerating the development of both existing and new data-driven solutions to optimize ships journey the collaboration will leverage combined strengths to address the dual opportunities of the digital transformation, and the decarbonization of shipping.

Adjusted operating margin for the full year declined by 24 basis points to a still healthy 23.8% on a reported basis compared to FY 2022, negatively impacted by foreign exchange effects (119 basis points). Organically, it rose by 94 basis points, benefiting from a positive mix and operational excellence.

2. EXPERIENCE AND QUALIFICATIONS

Annually, BV assesses thousands of properties for clients similar to the properties in the County of Cumberland, 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 County 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 County 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
Town of Oak Bluffs	MA	Facility Condition Assessment, Inventory	Just Awarded
Town of Berlin	MA	Facility Condition Assessment, Inventory	Ongoing
Michigan Department of Education	MI	Facility Condition Assessment & Energy Audit	Ongoing
Rhode Island Department of Education	RI	Facility Condition Assessment & Energy Audit	Ongoing
City of Attleboro	MA	Facility Condition Assessment, Barcoding, & Preventive Maintenance	Ongoing
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
Newtown Public Schools	CT	Facility Condition Assessment	2024
PSEG	CT, NY, NJ	Facility Condition Assessment & Energy Audit	2024
Town of Oak Bluffs	MA	Facility Condition Assessment, Barcoding, & Preventive Maintenance	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
City of Detroit	MI	Facility Condition Assessment & Energy Audit	2022
Delaware County	PA	Facility Condition Assessment & Energy Audit	2021



PROJECT PROFILE

STATE OF NEW HAMPSHIRE DEPARTMENT OF ADMINISTRATIVE SERVICES

FACILITY CONDITION ASSESSMENT

As of 2024, Bureau Veritas (BV) has just been awarded a contract to assess all State-owned facilities in New Hampshire. This service is intended to assess current value, replacement costs or deferred costs of facility contents and sites that are overseen by the State's Central Facilities Bureau. The results of this study will assist the Central Facilities Bureau in developing an all-inclusive capital plan to address current and future maintenance issues.

The assessments will include an examination and lifecycle assessment of the buildings, property, and major systems including plumbing, mechanical, electrical, roofing, seismic risk, general code compliance, and ADA compliance. BV will complete a comprehensive reserve schedule to help in the budgeting and replacement of assets as needed over the next 20 years. The project prioritized capital improvement projects, repairs, replacements, and maintenance.

Preventive Maintenance Schedules will be generated from the equipment inventory collected by BV during the FCA. The intent of the PM Schedules is to identify needed procedures and inspections required to maintain facilities systems in safe, reliable, and efficient condition. By leveraging BV's PM Schedule creation service, the Central Facilities Bureau will be able to incorporate regular preventive maintenance best practices for their equipment. By performing regular or routine maintenance best practices, the Central Facilities Bureau can ensure that their equipment is operating under safe and optimal conditions, thus preventing the potential for downtime and shorter life expectancy. All data and information gathered during the assessment will be uploaded into the State's Computer Maintenance Management Software. BV will also be delivering all FCA data in an Asset Management & Capital Planning software called AssetCALC.

At the conclusion of the assessments BV will conduct presentation of findings to the stake holders where we will walk through results of the assessment.

LOCATION

New Hampshire, State-Wide

SERVICE

Facility Condition Assessment

SIZE

40 Buildings
2.2 MM SF

FACILITY TYPE

All State-owned facilities
State House
Offices, Maintenance
Warehouses
Research / Labs
Libraries, DMV
Archives
Public Safety
Dept of Transportation
Garages
Historic Facilities

COMPLETION

Ongoing

REFERENCE

Andrea Olsson
New Hampshire Department of
Administrative Services
25 Capitol Street
Concord, NH 03301
(603) 271-7272
Andrea.I.Olsson@das.nh.gov



PROJECT PROFILE

TOWN OF EXETER

FACILITY CONDITION ASSESSMENT

Bureau Veritas (BV) assessed the condition of public buildings, sites, and park facilities for the Town of Exeter, NH. 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. We also conducted management review presentations for each department and provided software training.

Our team organized the property assessment schedule and coordinated with building groups to perform assessments efficiently without disrupting facility activities including complete visual inspections of facility components (exterior systems, interior finishes, fire/life systems, accessibility issues, MEP systems). We described facility deficiencies, provided corrective action for each deficiency, and established prioritization standards to characterize deficiencies.

BV 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

Exeter, NH

SERVICE

Facility Condition Assessment

SIZE

14 Buildings
120,000 SF

FACILITY TYPE

Town Hall
Town Offices
Libraries
Public Safety Complex
Senior Community Centers
Parks & Rec
Historical Society

COMPLETION

2022

REFERENCE

David Sharples
Town of Exeter
10 Front St
Exeter, NH 03833-2737
(603) 778-0591
dsharples@exeternh.gov



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



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PROJECT PROFILE

DELAWARE OFFICE OF MANAGEMENT AND BUDGET

STATEWIDE FACILITY CONDITION ASSESSMENT

Bureau Veritas (BV) was tasked with completing a statewide facility condition assessment of 92 buildings totaling 2.9 Million SF, as well as implementing a Computer Maintenance Management Software (CMMS) Solution for the Delaware Division of Facilities Management.

The purpose of the project was 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 included an evaluation of site improvements, architectural and structural systems, mechanical and plumbing systems, and exterior architectural elements. Additionally, BV created preventative maintenance schedule protocols that were used to plan and maintain serviceable building and HVAC equipment or components.

Outside of the State's CMMS solution, BV has continued to maintain a fully populated and up-to-date asset management and capital planning database for the OMD – Division of Facility Management. The database contains facility data and assets organized by county. Each building contains an average of 120 assets that is detailed down to Uni-Format Level 4. Building component assets are itemized from roof and site assets to individually HVAC equipment.

In 2022, the Delaware Office of Management and Budget asked BV to complete re-assessments of all the state facilities, as well as new facilities that whose maintenance responsibility were being transferred to the OMB, for the purpose of capital funding and master planning. The re-assessment built upon the data of the previous assessment allowing the state a deeper insight into their building portfolio needs; which allowed a defensible prioritization of modernization programs throughout the state.

Recently, Delaware OMB has engaged BV to conduct assessments of Delaware Department of Transportation facilities before taking control of maintenance from the Delaware DOT.

LOCATION

Delaware, Statewide

SERVICE

Facility Condition Assessment
Equipment Inventory
Preventative Maintenance
Capital Planning
CMMS Roll-out
Custom Capital Planning &
Asset Management Database

SIZE

3.5 MM SF, 120 Buildings

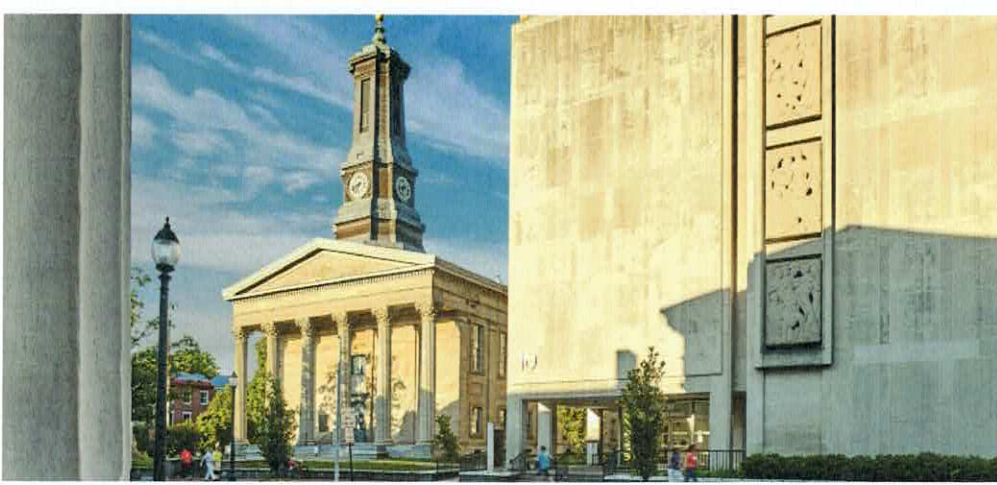
COMPLETION

2018, 2019, 2021, 2022, 2023

REFERENCES

Don Gerardi
Delaware OMB
Carvel State Office Building
820 North French Street
Wilmington, DE 19901
(302) 236-0224
don.gerardi@state.de.us

Jennifer Coverdale
Director of Facilities
Management
Delaware OMB
540 S DuPont Hwy
Dover, DE 19901
(302) 744-1184
jennifer.coverdale@delaware.gov



PROJECT PROFILE

CHESTER COUNTY

FACILITY CONDITION ASSESSMENT AND ENERGY AUDIT

The County of Chester engaged Bureau Veritas (BV) to conduct a property condition assessments, evaluate energy and sustainability options, and prepare a 10-year reserve schedule of County-owned buildings and structures. The County intends to use the assessment data and schedule for three primary purposes: Formulate annual capital budgets for the next ten years, Plan for conversion of fossil fuel systems to non-fossil fuel systems and Net Zero consideration for the County, and Populate the County's IBM Maximo Asset Management Software.

Our team organized the property assessment schedule and coordinated with the County 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 prioritized standards to characterize deficiencies. We also performed energy audits for each facility and made recommendations for Energy Conservation Measures (ECMs).

BV provided the County with accurate data that can be used to determine need, timing, and cost of preventative or remedial action to maintain the desired level of service of its assets. Additionally, energy audit data was utilized to determine potential energy saving opportunities and create a plan for conversion to non-fossil fuel energy systems.

LOCATION

Chester County, PA

SERVICE

Facility Condition Assessment
Equipment Inventory
Energy Audit
Reserve Study
Date Population of IBM
Maximo Software

SIZE

2 MM SF
162 Sites

FACILITY TYPE

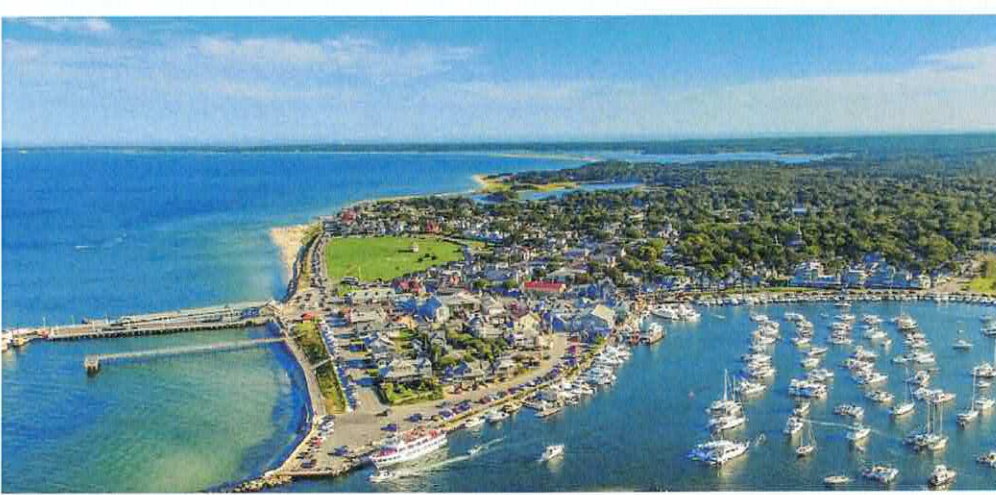
Public Works & Essential
GovAdministrative
OfficesPublic Safety Training
GaragesCounty Prisons and
DetentionMedical CampusPark
and RecCommunication

COMPLETION

2022

REFERENCE

Janet Bowers
Executive Director
Dept. of Facilities
313 W. Market Street, Suite 5402
West Chester, PA 19380
610-344-6020
jbowers@chesco.org



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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

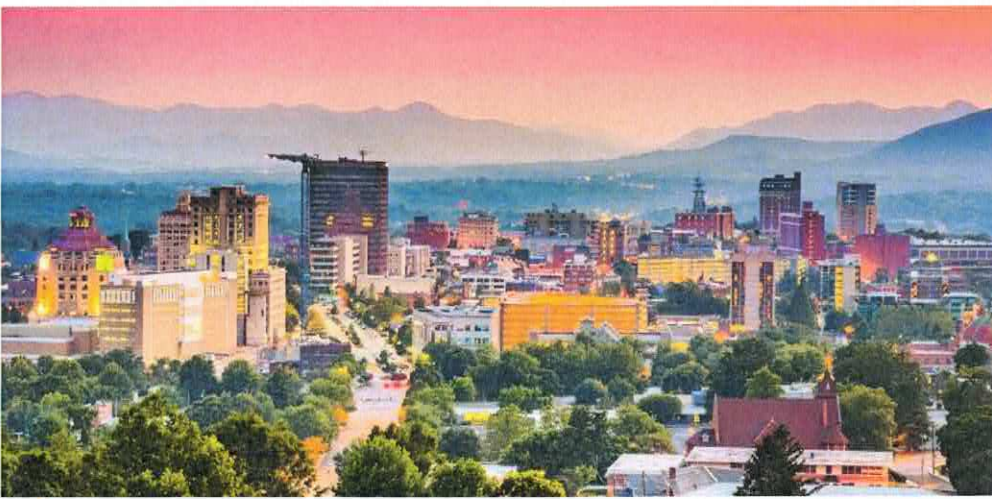
K-12 Public Schools
Town Hall
Libraries
Fire Stations
Museums
Police
Waste / Water Treatment
Parks & Rec
Harbor and Dock Facilities
Public Restrooms

COMPLETION

2024

REFERENCE

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



PROJECT PROFILE

CITY OF ASHEVILLE

FACILITY CONDITION ASSESSMENT, EQUIPMENT INVENTORY & PREVENTIVE MAINTENANCE

Brightly Software Solutions (formerly DudeSolutions) partnered with Bureau Veritas (BV) to perform Facility Condition Assessments for all city owned facilities in Asheville, North Carolina. The project was conducted in two phases that was spread over a year. The assessments includes all facilities owned by the City of Asheville as well as other public/private entities such as The National Guard, Harrah's Resort and Casino, and Arena / Stadium Facilities.

The purpose of this assessment was to develop a list of immediate priorities, identify a long range capital plan, and to show which facilities had the most critical need - to assist in budget capital needs. BV identified actions needed to adapt the facilities to future needs of the city, along with codes, standards, and changing technology.

Additionally, the FCA was used to initiate a new city-wide Computer Maintenance Management Solutions provided by Brightly Software. This software platform was systemically rolled out across all city facilities as BV processed the FCA data and equipment inventory to assist in implementing this software platform.

The software platform provides the city with the ability to efficiently manage preventative maintenance as well as capital plan budgetary needs into the future, insuring and protecting the city's invested resources in their facilities.

BV's staff of licensed engineers and architects conducted assessments of the facilities including public and private areas as well as site work. Additionally, specialized teams were utilized due to the city's unique building mixes and types; these buildings included Correctional facilities, historic buildings, and municipal service facilities such as water and waste treatment.

LOCATION

Asheville, NC

SERVICE

Facility Condition Assessment
Inventory / Barcoding
Preventive Maintenance Plan

SIZE

1.2 Million SF
105 Building

FACILITY TYPE

Administration
City Hall
Public works
Museums
Parks & Rec
Fire Stations
Arenas/Stadium
National Guard
Transit Buildings
Police Department
Correctional Facilities

COMPLETION

2022

REFERENCE

Walter Ear, PE
Capital Projects Manager
70 Court Plaza
Asheville, NC 28801
wear@ashevillenc.gov
(828) 251 - 4053

3. FACILITY ASSESSMENT TEAM

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 County's needs are being met, and that the project is adequately staffed, running smoothly, and on schedule.

Travis White | Program Manager

Mr. White will be the primary point of contact for the County throughout the duration of the project. He will work with the Assessment Team and the County to assure project success. He will be responsible for the assessment team's overall performance, delivery of the project, and will work with County 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



Education

Master of Business, University of Maryland

MS, Real Estate Development & Architecture, University of Maryland

BS, Architecture, University of Maryland



TRAVIS WHITE

PROGRAM MANAGER

Mr. White 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

City of Auburn, ME

Facility Condition Assessment

Town of Barnstable, MA

Facility Condition Assessment

Town of Oak Bluffs, MA

Facility Condition Assessment

City of Cambridge, MA

Facility Condition Assessment

City of New Bedford, MA

Facility Condition Assessment

City of Danbury, CT

Facility Condition Assessment

State of Rhode Island, RI

Facility Condition Assessment

State of Vermont, VT

Facility Condition Assessment

County of Chester, PA

Facility Condition Assessment

County of Delaware, PA

Facility Condition Assessment

City of Lancaster, PA

Facility Condition Assessment

YEARS OF EXPERIENCE: 5



Education

Bachelor of Science, Mechanical Engineering, University of Utah



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

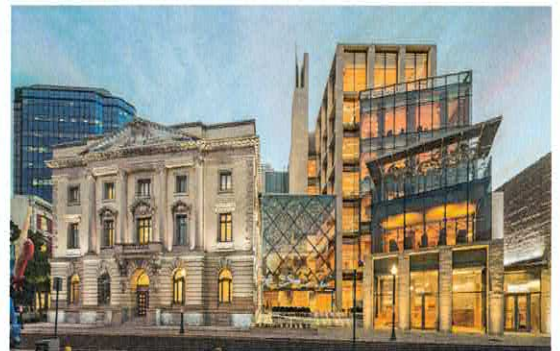
Montgomery County, MD

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



**BUREAU
VERITAS**

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



**BUREAU
VERITAS**

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



**BUREAU
VERITAS**

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



**BUREAU
VERITAS**

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%	✓	✓
Travis White	Program Manager	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. FCA SERVICES

Project Understanding

BV understands that the Facility Condition Assessment (FCA) project with the County of Cumberland (“the County”) 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 Client properties.
- Prepare a preventive maintenance plan for assets to be uploaded to a CMMS system.

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 Client'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 Client'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 Client, we will develop procedures to gain Facility Access. Our visits will be coordinated and pre-approved by the Client prior to the visit. We will work with the Client 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 Client. 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 Client 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 Client 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 Client'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 Client'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 Client 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 Client 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 Client 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 Client-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 Client, 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.

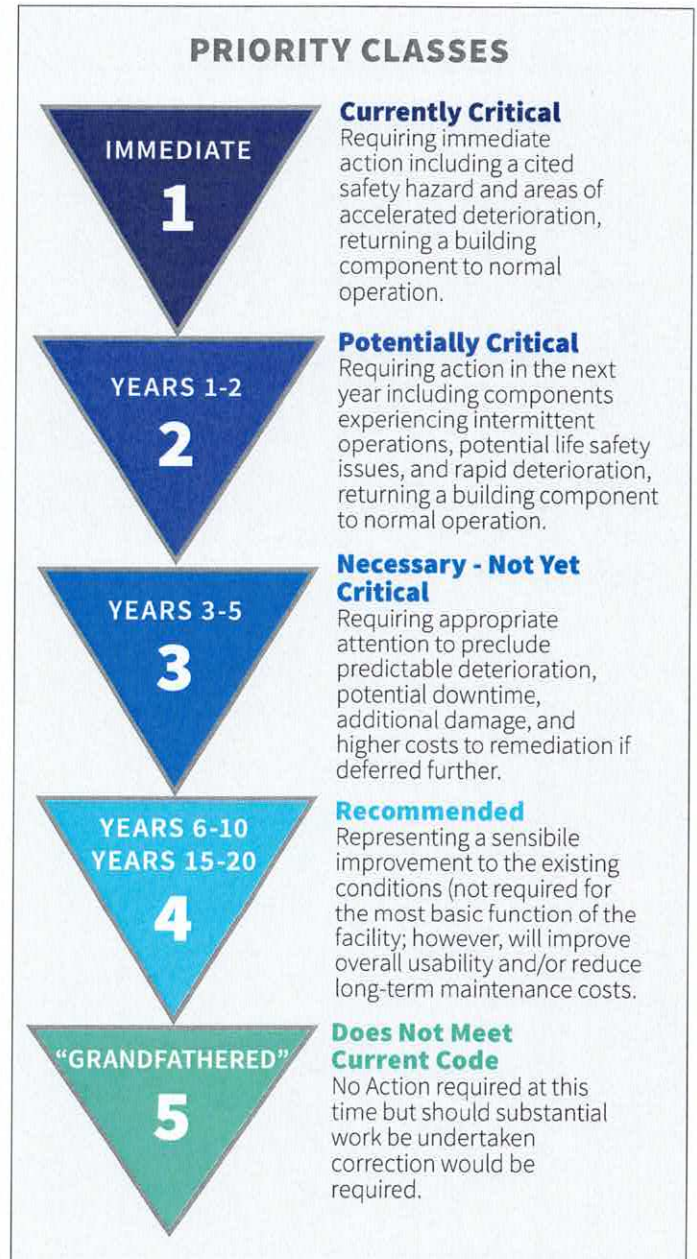
DEFICIENCY CATEGORIES/PLAN TYPES

Each deficiency identified in the Assessment shall be classified in the following manner (or other Client-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 Uniformat 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 Client'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 Client's CMMS system.

BV will collect information on the major pieces of facility equipment. Specifically, the data collection will include Client-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 Client 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.

Preventive Maintenance Plan

BV will prepare a preventive maintenance plan for each facility based on GSA Standard, Corp of Civil Engineers Standards, Industry Standards and original Equipment Manufacturers' recommendations.

The intent of the preventive maintenance plan will be to identify required procedures and inspections required to maintain and extend the useful life of existing equipment. BV will consult with the Client to develop equipment naming conventions and to discuss options where appropriate.

The PMP will be delivered in a database or spreadsheet format and is intended to be uploaded to a CMMS or work order management system. If the data is not being uploaded into a CMMS or work order management system, BV will provide all PM schedules in a report format. The following is meant to establish details of the deliverable that BV will provide in the Preventive Maintenance Plan:

- Inventory data collection, tagging of equipment and naming conventions will be established during the data collection phase of the project.
- The inventory will obtain major component level detail.
- The deliverable for this phase of the project will include a narrative introduction, a table for each building with

equipment, recommended preventive maintenance routines, frequencies and time requirements.

- BV will develop an export of the data customized for upload into the selected Maintenance Management software system.
- The preventive maintenance plan will be prepared following completion of field data collection and final entries into the client's database.
- It is important that room numbers and locations of equipment appear on work orders so technicians can easily locate equipment. During the field data collection phase BV will determine facility buildings, locations, and area naming convention to be used, and will establish room and facility numbers consistent with any existing Client conventions. Where no numbering exists, BV will recommend best practices.
- During data collection phase BV will determine Equipment nomenclature to be used (Air Handling Unit (AHU), Unit Ventilator (UV) etc.), as directed by the client.
- During the data collection and equipment inventory stage, BV will determine equipment schemes (Groups, Classifications, and Types) to be used. Conduct a meeting with the client to review individual equipment maintenance schedules (by wing, equipment type, etc).
- During data collection phase BV will gather and record equipment locations and types through visual, on-site, walkthrough and referencing facility documentation obtained from the Owner (excludes equipment in concealed spaces, crawl spaces or other inaccessible areas).
- Develop maintenance procedures referencing manufactures' printed recommendations and/or industry standards for facility equipment.
- Maintenance procedures will include:
 - Safety Points
 - Start Up Procedures
 - Appropriate tools required
 - Time to complete maintenance
 - Industry standards time to complete each maintenance work order
 - Life expectance of equipment
 - Step-by-step procedure to complete maintenance work order.

The preventive maintenance plan will include the establishment of Key performance indicators or effective maintenance including:

Planning and Scheduling

- Percent of planned work
- Schedule compliance

Work Category

- Percent of Corrective Maintenance
- Percent of Preventive Maintenance
- Percent of predictive maintenance (condition monitoring)

Work Type

- Percent of routine maintenance
- Percent of turnaround maintenance

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.

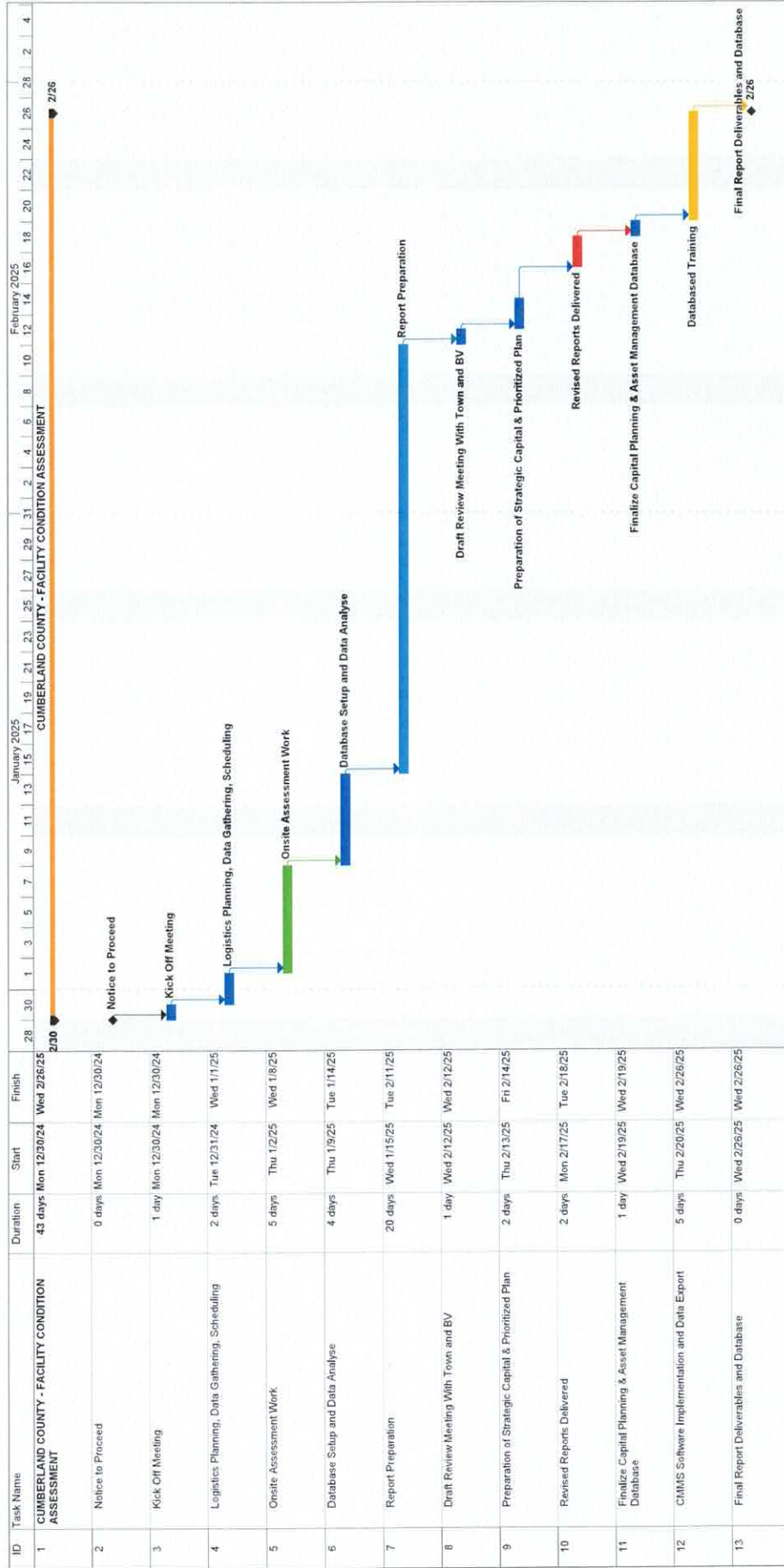
Management Plan

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 County and BV.



5. CMMS SOFTWARE

AssetCALC™ – Assessment Software and Database Deliverable

Bureau Veritas will utilize AssetCALC™ as its platform for all data collected on this project. AssetCALC™ is a mobile platform developed, licensed, maintained, and supported solely by Bureau Veritas for our clients. The database streamlines the process of data review, quality control, and data import into a CMMS software platform.

AssetCALC assists BV in processing and producing the facility condition assessment reports by enabling us 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 will be exported to Brightly's Asset Essential CMMS software platform.

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
- Client is the owner of data collected and residing in the database
- Online User Training and Documentation

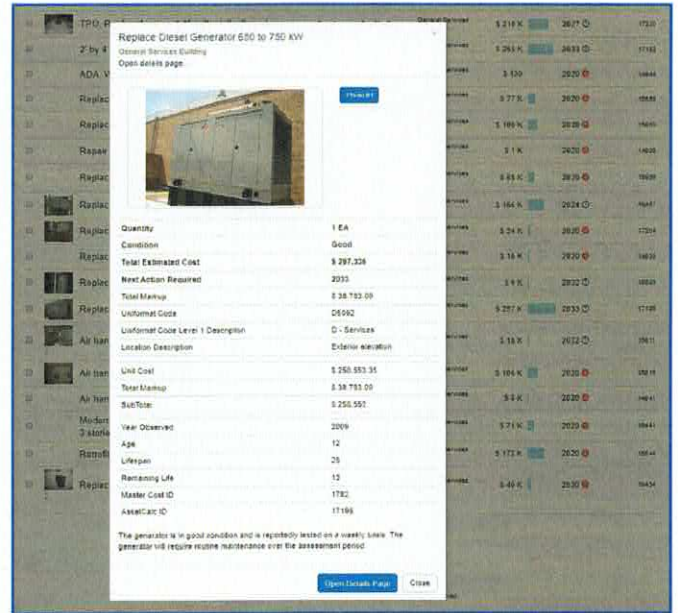
Observation ID	Date	Location	Description	Priority
1	1992	Building 113	The curb stop does not meet the scope requirements	40 / 25000
2	1994	Building 113	The curb stop does not meet the scope requirements	40 / 25000
3	1992	Building 113	The curb stop does not meet the scope requirements	40 / 25000
4	1992	Building 113	The curb stop does not meet the scope requirements	40 / 25000
5	1992	Building 113	The curb stop does not meet the scope requirements	40 / 25000

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

Bureau Veritas understands that the facility condition assessment data is intended to be imported into a Computer Maintenance Management System and is aware that the County has been working with Brightly Software in evaluating the implementation of a CMMS software. BV has included pricing for that CMMS software as well as optional pricing for a Capital Planning Software from Brightly. BV has worked with Brightly since 2012 and have completed over 6,000 projects together. Those projects involve conducting assessments and creating preventive maintenance schedules for the purpose of rolling out maintenance or capital planning software. Brightly's CMMS Software Asset Essentials is an ideal out-of-the-box software platform that involves:

- Capability accurately track and update deferred maintenance & capital projects.
- Generate, manage, & prioritize work orders
- Supports multiple users with various credential levels
- Organize assets by system, vertical, or Uniformat
- Dashboard view and analytics that visualize needs, timing, & backlog
- Dashboard can be organized by building, rooms, systems, or portfolio
- Prioritize projects by data and ability to configure by ranking set strategies or missions
- Asset Essentials is available via any web-browser and mobile app while in the field

Bureau Veritas will manage the setup and implementation of the software to guarantee a smooth transition of data integrity from the assessment. Additional information regarding Brightly's Asset Essential has been included on the next few pages.

CMMS Software Brightly:

Bureau Veritas understands that the facility condition assessment data is intended to be imported into a Computer Maintenance Management System and is aware that the County has been working with Brightly Software in evaluating the implementation of a CMMS software. BV has included pricing for that CMMS software as well as optional pricing for a Capital Planning Software from Brightly.

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Bureau Veritas will manage the setup and implementation of the software to guarantee a smooth transition of data integrity from the assessment. Additional information regarding Brightly's software offering has been included on the next few pages.

A brief description of the Vendor

Brightly, a Siemens company, enables organizations to manage the entire lifecycle of their assets, facilities and infrastructure. As the global leader in intelligent asset management solutions for more than 25 years, Brightly's sophisticated cloud-based platform is expertly designed to improve capital planning through smarter, data-driven decision making, empower technicians to predict, prioritize and manage preventative maintenance activities, and support organizations to achieve sustainability, compliance and efficiency goals. Combined with award-winning training, legendary support and managed services, more than 12,000 clients worldwide depend on Brightly to optimize their teams, operations and strategic planning initiatives.

Accolades:

- Leader in Verdantix Green Quadrant for EAM and AIP (2022 & 2023)
 - [Brightly Named Verdantix Green Quadrant® Leader: Enterprise Asset Management Software](#)
 - [Brightly Named Verdantix Green Quadrant® Leader: Asset Investment Planning Software](#)
- Bronze Stevie Award for excellence in frontline customer service (2022)
- North Carolina Mid-Market Fast 40 - Ranked #33 (2021)
- Triangle Business Journal leader in Diversity (2019)

A description of the goods and services the Vendor is currently delivering

Proposed Solution

As government leaders, you want the best for your citizens. You also want strategic ways to save time and money, so your team can focus where it counts and make smarter decisions for your community. Asset Essentials provides your departments with the tools they need to think predictively, plan intelligently, and work more productively to serve their people: more purpose, more control, more knowledge – all at your fingertips.

Brightly's CMMS, Asset Essentials, will provide the following components:

- Asset Management – Create and manage assets, document their location anywhere in your organization, associate multiple assets with associated relationships, attach photos and other documents, prioritize, and assign assets to a work order with values for criticality, and track their total cost of ownership.
- Work Management – Create Work Orders or tasks from an asset or from submitted service requests using either desktop or mobile devices, and route them to approvers based on attributes or established workflows. Schedule Technicians and track all work and transactions with time stamps to record labor hours, costs, etc. Historical work requests and WOs are stored within the system to capture and archive requestor, asset, technician, or task information.
- Mobility - Brightly invests heavily in native mobile applications that empower your workforce. Native mobile applications always run faster than responsive web apps. Mobile apps can store essential data on devices and do not rely on Wi-Fi/cellular connectivity or a web browser to perform even the most straightforward functions. Native mobile apps allow for personalization and provide access to all the features mobile devices have, like GPS, accelerometer, camera, Bluetooth, and other sophisticated features. Brightly mobile applications address one of the most critical issues facing municipal operations teams today: how to improve the efficiency and effectiveness of your maintenance team.
- Preventive Maintenance – Create, manage, and control preventive maintenance schedules to extend the life of your equipment and keep assets operating at peak performance. PM work can be generated based on meter readings, thresholds, dates, and more, with PM templates and checklists available for each asset type. PM tasks can be set up to occur at a designated frequency, with the ability to manage schedules in a calendar view.
- Inventory – Track, update, and manage all parts inventory. Users can assign unique IDs and cost codes to inventoried parts and assign them to WOs or PM tasks, automatically influencing recorded stock levels based on transaction details. AE tracks the storage location of all parts and manufacturer data, warranties, parts details, and more. It also allows for batch updates and imports/exports of parts on hand.
- Robust Reporting & Analysis – Access hundreds of editable, pre-built reports to allow you to measure and track asset conditions, lifecycles, and staff productivity. These include WO and PM Summary Reports, Asset Cost Summaries, Asset Lifecycle Analysis, Site or Location Comparisons, Labor Cost Details, Part Usage, Incident Reports, Purchase Order Summaries, and many more. Reports can be customized and run on a recurring or ad hoc basis and can be exported to Excel and shared across your organization.
- Data & Analytics - Our CMMS Analytics platform will allow Cumberland County to harness its data reporting needs through automated data visualization dashboards that are easy to understand, use and share with others. Use this data to justify your specific needs for staff, resources, asset repairs or replacements, and more. Dashboards rollup/rolldown from all levels and including, Operational, Utilization, and Forecast Dashboards, Executive Summary PowerPoints, and Key Performance Indicators (KPIs) like Asset Health, Return on PM Investment, & Trend of Planned to Reactive Maintenance.

Predictor is a powerful strategic asset management and capital planning software that models long-term funding and service scenarios. It calculates the impact of decision-making across various criteria and asset types and displays the data in a clean easy to understand format.

- Predict asset life - Leverage industry-specific algorithms and condition-based degradation profiles to maximize the long-term state of your asset portfolio.
- Justify funding requests - Protect your assets by creating powerful and easily digestible visuals to show leaders the long-term impact of funding.
- Compare various funding scenarios - Model funding scenarios and compare the impact they will have on your organization's assets and infrastructure health.
- Customize based on needs - Tailor our powerful software to fit your needs and your organization's decision-making process.
- Create smarter budgets – Adjust capital-related factors to help answer complex problems. What will happen if we spend more on energy-efficient assets? How did that impact the condition? What happens if we don't replace this roof? How much risk does that expose us to?

CMMS Software Requirements

Provide with the capability to continually update all data, manage deferred maintenance reduction, predict future capital renewal, and accommodate the various sites/assets throughout the service area

Brightly's Predictor can generate long-term and short-term capital renewal plans, predict the future service state of infrastructure assets through Life-Cycle Modeling, and integrate with various data sources, including ArcGIS. It can also optimize available funding year over year and build models across all vertical and horizontal assets.

The software utilizes algorithms to optimize year-over-year investments and statistical methods to simulate asset degradation. Predictor also offers two ways to incorporate maintenance into the model, depending on the type of results and reporting required. This allows for the management of deferred maintenance reduction.

Generate and support multiple site service requests, or work orders, from various spaces within the service range, and capable of prioritizing request level

Yes, multiple service requests and work orders can be generated and associated with each other from various spaces within the service range. The system can automatically assign a default priority when a service request is created, but a user with appropriate permissions may modify this based on the requester's context.

Must support unlimited read/view users and be able to accommodate over 100 technician users with read, write, and edit capabilities at the same time

Yes, Asset Essentials supports unlimited users and can accommodate over 100 technician users with read, write, and edit capabilities simultaneously.

Be capable of attaching photos to various data elements

Yes, photos can be attached to various data elements such as inspections, new service requests, assets, and work orders through the mobile application.

Include a cost estimating system embedded within the overall software, which uses costs based on RSMeans, including local city cost indices and integrated annual cost updates

Our proposed CMMS solution supports RSMeans integration by facilitating direct data pulls from the RSMeans database into the system, enabling localized and accurate cost estimations. While our system does not currently embed RSMeans directly, it accommodates periodic updates and seamless imports of RSMeans data, ensuring compliance with your cost estimation and capital planning needs without requiring additional development. This approach aligns with the County's request for a turnkey solution while maintaining flexibility for future updates.

Support multiple building types and site assets

Yes, Asset Essentials enables users to manage all asset types, including buildings and site assets.

Be able to create multiple/unlimited portfolios

Yes, the product architecture allows the user to create multiple decision models with a virtually unlimited number of variables and constraints. These models are saved in Predictor Portfolio Files (.ppf), which can be shared, duplicated, and backed up.

Display projects at a Uniformat Level 4

Yes, Brightly Software meets this requirement.

Show visualization of needs by space, timeframe, buildings, systems, and portfolios

Brightly's Predictor will display recommended repairs and or replacements that can be further filtered based on the provided requirements.

Provide both filter and drill downs on visualizations

Yes, the solution provides both filters and drill-downs on visualizations. All charts can be filtered to specific work order types, individuals or groups, contractors as well as many other options. Users can also drill down to specific users, locations, types of work, etc.

Be able to prioritize requirements and/or projects based on both condition and non-condition data

Yes, Brightly Software meets this requirement.

Configurable scoring and ranking for projects aligned with strategies

Native Scale offers organizations the ability to define and align the Service State values using a scale that is 'native' to the organization. For example, ASTM D 6433-03 (commonly used in North America) defines the pavement condition index (PCI) as a numerical rating between 0 to 100 where 0 is the worst possible condition and 100 as the best possible

condition. Another example is the International Roughness Index, which is represented as a number ranging between 10 to 1 that reflects the road's overall ride quality, where 1 is the best possible condition and 10 is the worst possible condition. Both Native Scales can be configured in Predictor using separate life cycle degradation profiles.

This feature provides users with the ability to define the relationship between values that are 'native' to the organization and the asset or asset component's remaining useful life.

The relationship between Service State, Service Potential, and Native Scale is defined by the user in the life cycle degradation profile section of the Template. In defining this relationship, 0% Service Potential is always equal to a Service State of 6, and a Service Potential of 100% is always equal to a Service State of 0. Native Scale must always have a maximum value and a minimum value, but the scale can be defined in either descending or ascending order, between any two whole number values.

An asset's exact life cycle degradation profile is influenced by a range of factors, which can include the assets or asset components' current condition/performance, design, age, environmental factors, usage and user behavioral patterns, quality of raw materials, and construction practices.

Different degradation profiles specific to each asset or asset component type can be configured within the Template, and as a model matures, additional degradation profiles can be added to improve accuracy.

Be able to connect capital planning data with estimating and procurement applications

Yes. Predictor work schedules and simulations can be exported at your convenience.

Support mobile data collection devices/technology

Yes, the Asset Essentials mobile application supports mobile data collection devices. It is available on Android and iOS devices, including smartphones and tablets. The app allows users to create and update work orders, attach photos, capture GPS data, and complete inspections. It also provides offline functionality.

Must be web-browser-based

Yes. Below are the minimum supported operating systems and versions for the Asset Essentials mobile app. If you have an older operating system, we recommend upgrading to the latest version for optimal system performance. **Note: The Asset Essentials mobile app is only accessible on devices that include the Google Play Store or the Apple App Store.*

- **iOS** - current version and two previously released versions
- **iPadOS** - current version and two previously released versions
- **Android** - current version and two previously released versions **Note: Android Go edition is not supported*

Include a searchable online help system

Yes, Asset Essentials includes a searchable online help system. Users can easily search Brightly's online help site to troubleshoot common issues. A comprehensive user's guide is also accessible 24/7 for all system users, providing documentation related to the functions and operations of Asset Essentials. This includes online training tutorials, FAQs, etc.

Be able to generate a Facility Condition Index (FCI) and Net Asset Value (NAV) that follow recognized industry standards

Predictor can be configured to report against a Facility Condition Index that follows recognized industry standards. However, our experience has repeatedly proven that relying on the FCI as the primary KPI against which asset investment decisions are made leaves the client open to significant risk at the individual asset or component level. FCI is a composite roll-up of all the asset systems in a single facility and does not shine a light on critical assets at or near end-of-life.

We strongly encourage our clients to also incorporate risk and criticality at the asset/component level and generate related KPIs to help better inform asset investment strategies.

Other services related to the offering of systems or solutions described above, including hosting, customization, integration, implementation, installation, maintenance, training, data collection, import, export and backup, record-keeping and reporting, mobile, cloud and web-based applications or platforms, customer service, auditing, compliance, security, and technical/user support.

Implementation Services

Each implementation project begins with Project Initiation activities, including internal knowledge transfer and a project team orientation call to understand the project scope, plan, and objectives. This call introduces participants, reviews the delivery methodology, defines roles and responsibilities, introduces collaboration tools, and reviews documentation templates, the SOW, and the project schedule. During the Planning and Account Configuration phases, Brightly Project Coordinators manage project progress, distribute information using project tools, and hold checkpoint meetings to review progress. The User Acceptance Testing and End User Training phases focus on change control, quality assurance, and deliverable validation, with the Project Coordinator verifying product acceptance and preparing for project close activities. Finally, the Launch phase transitions the project from active implementation to Post Go-Live support with the same team before handing over to the Client Success and Legendary Support Teams.

Integrations

Brightly offers several options, including manual import/export, scheduled import/export via our ConnectorTool, and API for real-time integration. Our RESTful API uses JSON format for data exchange. Clients can interact with almost all aspects of data through the Asset Essentials API. Use cases can be discussed further to understand the scope and how Asset Essentials' preconfigured endpoints can accommodate the County's needs.

Concerning the API, county IT resources will be required to create and maintain integration points. Brightly will provide API documentation, and the County will create and manage integrations with third-party software.

If managed real-time integrations are desired, Brightly works with integration partners that can scope and provide this option. Our pricing does not include scope for integration, as further conversations will be required to price that option accurately.

Maintenance

Asset Essentials and Predictor are delivered as SaaS solutions. Your software will never be "out of date," and you will always have the latest "version" with minimal to no interruption to your service. Brightly enhances our products on an

ongoing basis, providing updates as often as every week. We run a standing maintenance window each week during overnight hours. Release notes are posted inside the app the day before being distributed.

CMMS Software

Your business continuity information security plans for the hosted environment.

Brightly has disaster recovery and business continuity plans to ensure consistent service delivery during data center disasters. These plans include automatic full database and transaction log backups on Production servers, with nightly backups and transaction logs every 15 minutes. Backups are securely transmitted daily to AWS S3 storage and moved to Amazon Glacier after 30 days for long-term archiving. AWS storage is located in the continental U.S., using multiple Availability Zones (AZ) for recovery, each backed by separate physical data centers with redundant power, networking, and connectivity. The application redundancy strategy uses AWS auto scale groups and multiple AZs, with web traffic load balanced by an AWS Application Load Balancer (ALB). In case of a failure, the ALB reroutes traffic to remaining servers. Each application tier has multiple servers in active-active or active-passive configurations. Infrastructure-as-Code (IaC) technology allows rapid scaling or deployment of infrastructure. High availability for data is ensured by using database servers in active-passive configurations with AWS Elastic Block Storage (EBS), which replicates volumes within the local AZ.

System client-side hardware and software configuration requirements.

Brightly's cloud-based applications are delivered via the SaaS model. Our cloud products come with no hardware, server, processing, or OS requirements other than using a compatible browser or mobile OS and access to an internet connection.

Power users of Brightly's Predictor platform are required to install the Predictor Desktop App to connect data sources and configure the predictive models. Microsoft Windows and .NET Framework 4.7.2 or above are required.

The practices in place for monitoring for unauthorized access to client information.

Brightly follows best practices to protect against intrusions and mitigate damage, including network segmentation, firewalls, access controls, vulnerability scanning, and a Security Information and Event Management (SIEM) system. These measures, aligned with ISO 27001 standards, help restrict unauthorized access, identify vulnerabilities, and analyze security data. Additionally, a well-defined incident response plan ensures effective detection, response, and recovery from security incidents, maintaining system and data security.

The practices in place to work with the client if a breach of client data occurs.

Brightly has documented policies and procedures for responding to information security events. If an information systems security breach causes, or is believed to have caused, unencrypted private third-party information to be accessed by unauthorized individuals or entities, the third party will be notified as quickly as practical but, in any case, within 72 hours. Furthermore, our products are isolated from one another on separate infrastructure in different AWS accounts, ensuring that any potential vulnerabilities in one product do not affect others.

The levels of support available, definitions of each level, and the hours of operation and response times

Brightly provides lifetime ongoing support for all clients. Our knowledgeable staff will address questions or concerns in a timely manner to support the County's success with our products. Our legendary support team was recently recognized as a Bronze Stevie Award winner for excellence in front-line support.

Support services for all active product subscriptions include 24/7/365:

- Toll-free telephone support - A friendly representative will direct you to a knowledgeable team member who can help
- Email support - our goal is to answer support emails within 1 hour
- Live Chat from within the solution
- Access to our Learning Management System (LMS) for helpful training resources
- 24/7/365 access to online **Help** for product function-specific instructional guides and videos and Brightly's Community Site for knowledge base articles and discussions

Each Support Request is reviewed, diagnosed and resolved by Brightly's Level 1 support personnel. The majority of our support requests are handled at level one. However, if necessary, Brightly's support personnel escalate atypical requests. Brightly uses commercially reasonable efforts to respond to support requests in accordance with the following table, severity level descriptions, and targets:

Support Request Classification:	Target Response Time:	Resolution Effort:
Severity 1: Critical Problem	1 Business Hour	Critical situations may require Customer and our personnel to be at their respective work locations or available on an around-the-clock basis.
Severity 2: Major Problem	4 Business Hours	We will resolve with a fix or a workaround, at our discretion. If a workaround is provided, the severity is downgraded.
Severity 3: Minor Problem	8 Business Hours	We will resolve with a fix or a workaround, at our discretion.
Severity 4: Cosmetic Issue	12 Business Hours	We will resolve with a fix or a workaround, at our discretion.

Brightly Level 1 support staff escalate any Severity 1 Production Issue Support Request to Brightly's Level 2 support personnel if we have not resolved such Support Request within one hour after the Severity 1 target Response time has elapsed. Brightly escalates any Severity 2 Production Issue Support Request to Brightly's Level 2 support personnel if Brightly has not resolved such Support Request within four (4) business hours after the Severity 2 target Response time has elapsed. Brightly Level 2 support is provided by Brightly's service specialists who have Services technical expertise.

Where your support services are located

Cumberland County will be serviced from Brightly's headquarters located in Raleigh, North Carolina. After-hours support will be directed to our India-based support team.

Whether support includes product updates, as well as bug fixes at no extra charge

Yes. All updates and releases are included as part of our annual subscription agreement. You will not have to provide any support during these updates as we release them via our SaaS model. All updates are scheduled and posted in advance and performed outside of business hours.

The helpdesk escalation procedure

Priority for all identified issues is determined by a combination of frequency of request, difficulty to deliver, how it affects and impacts product users, and the number of resources needing to be involved to satisfy the request etc. Our CSC team typically resolves standard issues or requests. When escalation is necessary for more complex, technical issues, we provide a “Tier 2” level of support via our development team. All of our Client Service Center members have the ability to escalate requests to our development team. Any reported issues that may impede use of the application are escalated immediately to our development team.

CMMS Manager:

Jennifer Harrigan, Project Manager | PMP, Scrum Master

13+ years in Project Management | 5+ years with Brightly

Ms. Harrigan is responsible for helping clients meet their implementation goals by creating and managing the project plan within the services and solutions’ scope and helping identify and mitigate risks or issues that come up in the implementation process. She ensures that project information is clearly communicated to the client, conducts periodic status meetings, and collaborates with both the client and internal stakeholders. Coming from a background in project management and business analytics, Ms. Harrigan has helped many teams achieve success using project management principles in a variety of client environments.

Contract length note:

Bureau Veritas typically includes the first year of software as part of our Facility Condition Assessment Contract. After the first year and if the client is satisfied with the software; the client is open to registered directly with Brightly via a separate contract agreement.

6. REFERENCES

Below is the contact information for each of our references. Profiles for our reference projects, including a description of the scope and other project details, are included in the Experience and Qualifications section of this proposal.

**STATE OF NEW HAMPSHIRE
DEPARTMENT OF ADMINISTRATIVE SERVICES
FACILITY CONDITION ASSESSMNET**

Andrea Olson
25 Capitol Street
Concord, NH 03301
(603) 271-7272
Andrea.I.Olsson@das.nh.gov

**TOWN OF EXETER, NH
FACILITY CONDITION ASSESSMENT**

David Sharples
10 Front St
Exeter, NH 03833-2737
(603) 778-0591
dsharples@exeternh.gov

**VERMONT DEPARTMENT OF BUILDINGS
AND GENERAL SERVICES
FACILITY CONDITION ASSESSMENT & ENERGY AUDIT**

Joe Aja
2 Governor Aiken Avenue
Montpelier, VT 05633-5801
(802) 272-4949
joe.aja@vermont.gov

**DELAWARE OFFICE OF MANAGMENT AND BUDGET
FACILITY CONDITION ASSESSMENT**

Don Gerardi
820 North French Street
Wilmington, DE 19901
(302) 236-0224
don.gerardi@state.de.us

**CHESTER COUNTY, PA
FACILITY CONDITION ASSESSMENT & ENERGY AUDIT**

Janet Bowers
313 W. Market Street, Suite 5402
West Chester, PA 19380
jbowers@chesco.org

**TOWN OF OAK BLUFFS, MA
FACILITY CONDITION ASSESSMENT & INVENTORY**

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

**TOWN OF ASHEVILLE, NC
FACILITY CONDITION ASSESSMENT & INVENTORY**

Walter Ear, PE
70 Court Plaza
Asheville, NC 28801
wear@ashevillenc.gov
(828) 251 - 4053