

PROJECT NO. 2023-280: CAPITOL CAMPUS FACILITY CONDITION ASSESSMENT

Washington State Capitol Campus

PREPARED FOR:

STATE OF WASHINGTON
DEPARTMENT OF ENTERPRISE
SERVICES

DATE OF SUBMISSION:

06 / 12 / 2023, 2:00 PM

SUBMITTED BY:

MENG ANALYSIS 2001 Western Ave, Suite 200 Seattle WA 98121-3300 206.838.9797 | menganalysis.com



June 12, 2023

State of Washington Department of Enterprise Services Attn: John Lyons, Project Manager Angeline (Ernst) Butros, Project Contact

Submitted via upload

RE: Capitol Campus Facility Condition Assessment, Project No. 2023-280

Dear Members of the Selection Committee:

Among its many responsibilities, the DES team is tasked with ensuring continuity of government. In order for our state government to function, it needs a physical venue to conduct legislative, judicial, and executive functions, and DES is responsible for managing and maintaining an extensive building portfolio to support these functions.

By understanding the existing conditions of their facility portfolio, DES will anticipate building needs before they become building problems. With quantified maintenance and upgrade costs, the DES team will be able to proactively request needed funding, engage contractors, and perform needed facility maintenance. DES wants facilities to be safe, accessible, and environmentally responsible. MENG Analysis is excited for the opportunity to partner with you to achieve these goals.

MENG Analysis is the Pacific Northwest leader in municipal facility condition assessment. We have honed our approach through years of service based on our municipal partners' needs. Through our assessment process, we will document deficiencies needing remediation, forecast future 20-year needs based on current conditions and building use, provide accurate budgetary level cost estimates for facility needs, highlight accessibility and seismic issues, and share our methodology so that DES can self-perform future assessments.

Our team of building science experts is supplemented by specialists from several local firms:

RC Cost Group – Andy and his team of cost estimators from RC Cost group have worked with MENG Analysis and many other local firms to provide cost estimates for facility condition assessment projects large and small. Andy is currently working with MENG Analysis on four condition assessment projects.

PCS Structural Solutions – Craig Stauffer and the PCS team are frequent partners to MENG Analysis when seismic analysis is required. They have recently joined our FCA team on assessments for the Charles Wright Academy, Tacoma Venues & Events, Puget Sound Energy, and the City of Sammamish.

BCRA – the Tacoma-based team has worked on numerous projects with condition assessment components. They most recently teamed with MENG Analysis on the Tacoma Venues & Events facility condition assessment.

Ecotope – Seth and his team are experts in energy conservation and decarbonization. We have included them on our team to support sustainability efforts and energy analysis that may arise from the FCA.

By working with our team, DES will obtain a comprehensive understanding of your facility conditions and a plan to move forward to maintain them. We look forward to exceeding your expectations!

Sincerely, MENG Analysis

Sarah Partap, Principal

Primary Contact/Authorized Individual sarah@menganalysis.com, 206.451.3462

0.0.000

VALUE ANALYSIS

COST ANALYSIS

CONSTRUCTABILITY

FACILITY ASSESSMENT PERFORMANCE ENGINEERING

2001 Western Ave Suite 200 Seattle, WA 98121 206.838.9797 www.menganalysis.com



STATE OF WASHINGTON

DEPARTMENT OF ENTERPRISE SERVICES

1500 Jefferson St. SE, Olympia, WA 98501 PO Box 41476, Olympia, WA 98504-1476

Designated Point of Contact for Statement of Qualifications Point of Contact Name and Title Sarah Partan, MBA, VMA, Principal

	Saran Partap, i	MBA, VIVIA, P	rincipal	
Firm Name	MENG Analysis			
Address	2001 Western Avenue, Suite 200			
City	Seattle	State	WA	Zip 98121-3300
Telephone	206-838-9797 (office) 206-451-3462 (cell)	Email	sarah@mengana	ılysis.com
	11 0 1.1 00	1 .		
	ddresses of multiple office	ce locat	ions of firm	(if applicable)
	/A			
City		Phone		
Address				
City		Phone		
Address				
City		Phone		
Address				
City		Phone		
	D. D. C		·•	
	Diverse Business C	ertifica	tions (if appli	cable)
=	ssued by the Washington State Office of Jusiness Enterprise (MBE)	Minority a	nd Women's Busin	ess Enterprise (OMWBE)
□ Woman Bu	siness Enterprise (WBE)			
☐ Minority W	Vomen Business Enterprise (MWBE)			
Certification is ☐ Veteran Ow	ssued through the Washington State Dep wned Business	partment of	Veteran's Affairs	
•	ssued through Washington Electronic B ness Enterprise (SBE)	usiness Sol	ution (WEBS)	

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (If any)

2023-280

		(If a firm has branch		I - GENERA complete for				vork.)		
2a. FIRM (or Branch Office) NAME						3. YEAR ESTABLISHED 4. UNIQUE		JE ENTITY IDENTIFIER		
EGM, Inc. dba MENG Analysis						1976		963404876		
2b. STREET						5. 0	OWNERS	SHIP		
2001 Western Ave, Suite 200							a. TYPE			
2c. CITY				2d. STATE	2e. ZIP CO	DE	S-Corp			
Seattle				WA	98	98121 b. SMALL BUSINESS STATUS				
6a. POINT C	OF CONTACT NAM	E AND TITLE				Small Business Enterprise			rise	
Sarah Pa	artap, Principa	ıl				7. NAME OF FIRM (If Block 2a is a Branch Office)				
	ONE NUMBER		6c. EMAIL ADDRESS			N/A				
206.838.9	9797		sarah@menganalysis.com							
	88	a. FORMER FIRM NAM	E(S) (If any)		8b. YEAR	ESTABLISHED 8c.	D 8c. UNIQUE ENTITY IDENTIFIER		
Meng As			,,,			1976	099038945			
	9. EMI	PLOYEES BY DISCIP	PLINE		ANI		PROFILE OF FIRM'S AVERAGE REVENI			
a. Function			c. Number	c. Number of Employees					c. Revenue Index	
Code	b.	Discipline	(1) FIRM	(2) BRANCH	a. Profile Code		b. Experience		Number (see below)	
61	Value Engin	eers	2	(Z) BIO WOIT	V01	Value Ana	lysis	5		
42		Engineer (CCP)*	1		E02		al Facilities; Classroom	4		
58	Technician (• ' '	2		A12		on; Controls; Instrumentation 3			
48	Project Man		1		C05		e/Development Facilities 1			
		<u></u>			C11		ty Facilities 1			
-					C15	Constructi	on Management	1		
					C18		nating, Cost Engineerin	1		
					E05		rs, Escalators, People Movers		1	
					F02	Field Hous	uses, Gyms, Stadiums		1	
					F03	Fire Protect			2	
					G01		ehicle Maintenance Fa	1		
							entilating, Air Conditioning		3	
					Н09		Medical Facilities		1	
					H11	Housing			1	
					001	Office Buil			2	
*Mechanical engineer is also a value engineer				P13		fety Facilities		2		
		Total	5		L01	Laboratori	es		1	
11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS (Insert revenue index number shown at right)			PROFESSIONAL SERVICES REVENUE INDEX NUMBER 1. Less Than \$100,000 6. \$2 million to less than \$5 million 2. \$100,000 to less than \$250,000 7. \$5 million to less than \$10 million							
a. Federal Work 3. \$250,000 to less the										
b. Non-Federal Work 4. \$500,000 to less the										
c. Total Work 5. \$1 million to less than \$2 million 10. \$50 million or greater										
				UTHORIZED foregoing is a						
a. SIGNATURE							b. DATE			
al	Kmbp						June 12,	2023		
c. NAME ANI										
Sarah Pa	artap, Principa	ıl								

EXECUTIVE SUMMARY



MENG Analysis Facilities Condition Assessment Expertise

Our firm's experience in facility condition assessment (FCA) stands out due to its diversity in facility types, magnitude, and number of repeat clients. You will work with a team that has completed condition assessments for a range of clients throughout the region. With our support, our clients move toward proactive asset management, allowing them to responsibly plan for future capital improvements. Our work helps maximize the life of each facility, while considering safety and identifying opportunities that can save money in maintenance and operations costs.

FCA as a Core Service, Not an Afterthought

Often, architecture firms and performance contractors perform FCAs as a secondary service related to their primary line of business. At MENG Analysis, FCA is one of our core services. We provide independent expertise on building conditions and maintenance strategies that draws on our 40+ years of condition assessment, comparative analysis, design review, and commissioning experience.

Reliable Cost Data

DES representatives will work with a team of experts who understand the construction market. Understanding how buildings are put together is critical to accurate cost estimating. Our reliability is proven by our extensive list of repeat clients.

Expertise Without an Agenda

We pride ourselves on being an independent team of building science experts whose only goal is to look out for your best interests. We are not designers. We do not sell equipment or maintenance contracts. We have no agenda for future work that is based on the outcome of our assessments. Over our decades-long history of performing condition assessments, we have developed a time-tested approach that public agencies can trust.

A Team of Passionate Building Science Experts

Our team of building science and engineering experts are passionate about what they do. As a small company, we are incredibly selective in employing a core team of highly specialized experts who leverage a wealth of engineering, construction, and facility best practices knowledge. Our team is crafted to maximize the talents of each of its members and to benefit DES.

MENG Analysis FCA Experience					
80	58				
TOTAL FCAs	PUBLIC CLIENTS				
18	15				
PRIVATE CLIENTS	REPEAT FCA CLIENTS				



Sarah was a pleasure to work with. She did a great job keeping the project team on task while meeting our demanding scope and schedule. Sarah is a great communicator and managed the project to a very high standard."

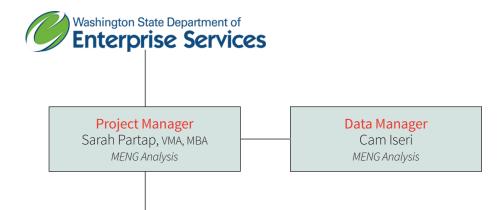
RON MAJOR, CEM, RESOURCE CONSERVATION PROGRAM MANAGER WASHINGTON DES

QUALIFICATIONS OF KEY PERSONNEL

Team Organization

The organization chart below identifies the specific individuals and subconsultants for key positions and shows the interrelationships and reporting hierarchy for our proposed team. In the following pages, we have described how each individual's professional experience is relevant and will bring value to the Capitol Campus project, and we have included the percentage of time that each individual is expected to be committed to this project.

Team Organization



Core Assessment Team

TEAM 1

Civil/Structural
Architectural Assessor
Timothy Buckley, AIA, VMA,
LEED AP BD+C
MENG Analysis

Mechanical, Electrical, & Plumbing Assessor

Wade Botting, CxA
Wade Botting Consulting, LLC

TEAM 2

Civil/Structural
Architectural Assessor
Brandon Bowie
BCRA

Mechanical, Electrical, & Plumbing Assessor

Doug Smith, PE, CCP, VMA, LEED AP, CSBA MENG Analysis

Additional Resources

Structural Assessor

Craig Stauffer, SE PCS Structural Solutions

Cost Estimator

Andy Cluness RC Cost Group

Energy/Decarbonization

Seth McKinney

Ecotope

Civil/Structural
Architectural Assessor
Ben Dort, PE
BCRA





MENG ANALYSIS

Sarah Partap, VMA, MBA

Project Manager



EDUCATION

MBA, Leadership Certification, Seattle University

BA, Honors History and French, University of Washington

REGISTRATION

Value Management Associate (VMA)

Sarah is a talented project manager with a knack for translating complex engineering data into easy-to-understand presentations and reports for non-technical audiences. Sarah has managed the majority of the firm's projects since being hired in 2015. She is one of the managing principals and presents reports and findings to city councils, school boards, and the public on a regular basis. Sarah will be responsible for managing the team, overseeing all quality control activities, and communicating with DES throughout the project.

Featured Experience

- City of Burien, Facility Condition Assessment; Burien, WA
- City of Sammamish, Facility Condition Assessment; Sammamish, WA
- City of Everett, Facility Condition Assessment; Everett, WA
- City of Everett Public Facilities District, Angel of the Winds Arena FCA; Everett, WA
- City of Grants Pass, Facility Condition Assessment; Grants Pass, OR
- City of Kent, Facility Condition Assessment, Kent, WA
- City of Kirkland, Parking Garage Facility Condition Assessment; Kirkland, WA
- City of Lynnwood, Facility Condition Assessment; Lynnwood, WA
- City of Tacoma, Facility Condition Assessment; Tacoma, WA
- Clark County, Facility Condition Assessment; Vancouver, WA
- King County Facility Management Division, Facility Condition Assessment;
 King County, WA

MENG ANALYSIS

Cam Iseri

Data Manager



EDUCATIONMS, Mechanical Engineering,
University of Washington

BS, General Engineering, Mechanical Focus, Seattle Pacific University With a master's degree in mechanical engineering and experience developing visualization tools, Cam's technical knowledge makes him a key part of the team. Cam uses his proactive style and familiarity with technology to make our projects more organized and efficient. Cam reviews and organizes background documentation, analyzes energy data, performs on-going QC checks, and uses his expertise in technology and programming to streamline the reporting process. Cam also leads the customization of our data visualization tool and performs the client training.

- City of Burien, Facility Condition Assessment; Burien, WA
- City of Camas, Facility Condition Assessment; Camas, WA
- City of Everett, Facility Condition Assessment; Everett, WA
- City of Grants Pass, Facility Condition Assessment; Grants Pass, OR
- City of Kent, Facility Condition Assessment; Kent, WA
- City of Lynnwood, Facility Condition Assessment; Lynnwood, WA
- City of Sammamish, Facility Condition Assessment; Sammamish, WA
- City of Tacoma, Facility Condition Assessment; Tacoma, WA
- Clark County, Facility Condition Assessment; Vancouver, WA





MENG

Timothy Buckley, AIA, CVS, LEED AP BD+C

Civil, Structural; Architectural Assessor



EDUCATION

BA, Architecture, Washington State University; BS, Architectural Studies, Washington State University

REGISTRATION

Architect - Washington and Oregon; NCARB Certified; Certified Value Specialist (CVS); LEED Accredited Professional Building Design and Construction (LEED AP BD+C); OSPI Certified Building Condition Assessor Timothy is a licensed architect with more than 30 years of experience in facility design, project management, construction administration, and building condition assessments. Clients love working with Timothy because he is service-oriented and always puts their best interests first. His deep understanding of building systems and objective eye for detail make him a great asset for our survey team. His fact-based process clearly identifies issues and his proposed recommendations are easy to understand. He also loves sharing his building system knowledge and recommendations in the field with your maintenance and operations staff. Timothy is well-versed in ADA compliance requirements and will leverage his knowledge to document accessibility challenges.

Featured Experience

- City of Burien, Facility Condition Assessment; Burien
- City of Camas, Facility Condition Assessment; Camas, WA
- City of Everett, Facility Condition Assessment; Everett, WA
- City of Kent, Facility Condition Assessment, Kent, WA
- City of Kirkland, Parking Garage Facility Condition Assessment; Kirkland, WA
- City of Sammamish, Facility Condition Assessment; Sammamish, WA
- City of Vancouver, Facility Condition Assessment; Vancouver, WA
- Clark County, Facility Condition Assessment; Vancouver, WA
- City of Tacoma, Facility Condition Assessment; Tacoma, WA
- King County Facility Management Division, Facility Condition Assessment; King County, WA



EDUCATION & CREDENTIALS

ACG Certified Commissioning Authority (CxA), Registration Number: 0222-1971

Daikin University Continuing Education

CompTIA Network+ Certification, ID Number: COMP10638523

Progressive Mentorship; Leadership Education; Whitworth University

United Association Union Local 32 Mechanical Apprenticeship and Journeyman Certification

Wade Botting, CXA

Mechanical, Electrical, & Plumbing Assessor

Wade has 30 years of experience providing commissioning, retro commissioning, facility site assessment, value engineering, constructability review, budgeting, cost estimating and analysis, Basis of Design (BOD) and Owner Project Requirements (OPR) development, design management, and system selection services. His work spans commercial, industrial, military, educational, institutional, and correctional facilities throughout the Pacific Northwest region focused on quality projects as well as special focus on mechanical, plumbing, and process infrastructure. Wade has worked with MENG Analysis as a mechanical reviewer on numerous projects over the past five years.

- US Navy, Naval Shipyard PSNS-IMF Naval Sea Systems Command Design-Build Energy Upgrade; Bremerton, WA
- WSDOT, Design-Build Office Building Cx; Olympia, WA
- US Navy, WADS EACN and NCC Data Centers, Joint Base Lewis McChord Building 852 Cx





MENG ANALYSIS

Doug Smith, PE, CCP, VMA, LEED AP, CSBA

Mechanical, Electrical, and Plumbing Assessor



EDUCATION

BS, General Engineering, US Naval Academy; MBA, Technology Management, City University

REGISTRATION

Prof. Engineer (PE): WA, CA; Value Management Assoc. (VMA); Certified Commissioning Professional (CCP); LEED Accredited Professional (LEED AP); Certified Sustainable Building Advisor (CSBA)

Doug is a mechanical engineer and commissioning agent who has surveyed more than 1,000 buildings over his 30-plus year career. Doug's role includes preliminary energy analysis and assessment of mechanical, electrical, and plumbing systems. He brings expertise in applicable fire codes and requirements for various building occupancy types. He has reviewed a wide range of building categories, including performance venues, sports complexes, community centers, public safety facilities, historic buildings, and many others. Doug is an active member of multiple technical organizations, keeping him up to date on facility industry trends and best practices.

Featured Experience

- City of Redmond, Facility Condition Assessment; Redmond, WA
- City of Everett, Facility Condition Assessment; Everett, WA
- City of Grants Pass, Facility Condition Assessment; Grants Pass, OR
- City of Kent Facility Condition Assessment, Kent, WA
- City of Kirkland, Parking Garage Facility Condition Assessment; Kirkland, WA
- City of Lynnwood, Facility Condition Assessment; Lynnwood, WA
- City of Vancouver, Facility Condition Assessment; Vancouver, WA
- Clark County, Facility Condition Assessment; Vancouver, WA
- City of Tacoma, Facility Condition Assessment; Tacoma, WA
- King County Facility Management Division, Facility Condition Assessment;
 King County, WA



Brandon Bowie

Civil, Structural; Architectural Assessor



EDUCATIONBA, Architecture,
Washington State University

Brandon has 17 years of experience as a construction administrator, which has helped him develop an expertise in building envelope best practices. This experience has also given him a unique perspective on both the design and construction side of projects as well as a keen eye for details and deficiencies. For these assessments, Brandon will review civil, structural, and architectural systems, as well as general ADA compliance.

- Pierce County, Crisis Stabilization Center; Parkland, WA
- Skagit County, Crisis Stabilization Campus; Sedro Woolley, WA
- WA DSHS, Civil Commitment Center at Maple Lane; Chehalis, WA
- Puyallup Parks & Rec, Puyallup Rec Center Improvements; Puyallup, WA
- Olympia School District, 3 Elementary School Modernizations; Olympia, WA
- City of Fife, Brookville Gardens Community Park; Fife, WA







EDUCATION

MS, Civil Eng. (Structural Emphasis), University of Wyoming

BS, Architectural Eng. (Structural Emphasis), University of Wyoming

REGISTRATION

Structural Engineer: WA, HI, ID, OR, UT

Professional Engineer: CO, IA, MT, NC, NH, NY, WY

Craig Stauffer, SE

Structural Assessor

Craig brings 31 years of public agency experience including working with owners on long-range planning, evaluations, renovations, and additions throughout the Northwest. Craig has served as a responsive and reliable on-call partner for many public agencies including DES and will provide consistent, dependable structural engineering service for all upcoming projects.

Featured Experience

- Washington DES, On-Call Structural Engineering 2011
- The Evergreen State College, On-Call Structural Services; Olympia, WA
- Washington State General Administration, On-Call Agreement
- Seattle Public Schools, District Building Evaluations and FCA; Seattle, WA
- Puget Sound Energy, South King Complex FCA; Kent, WA
- University of Washington, Seismic Studies; Seattle, WA





EDUCATION

BS, Quantity Surveying, Leeds Metropolitan University

Andy Cluness

Cost Estimator

Andy Cluness is the managing partner of RC Cost Group INC. Andy brings 23 years of extensive knowledge of the construction management industry and for the last 21 years has been based in the Pacific Northwest. Andy and his team are frequently involved in facility condition assessment cost estimate projects and have worked recently with MENG Analysis on the City of Vancouver Condition Assessment On-Call (2023) and the Tacoma Venues & Events Facility Condition Assessment (2023).

- City of Vancouver, WA, Facility Condition Assessment
- Seattle Public Schools, Facility Condition Assessment for Multiple Buildings (approximately 8.5 million square feet), Seattle, WA
- State of Oregon, Oregon Judicial Courthouse Renovation/Replacement Study Facility Condition Assessment, 48 Locations; Oregon





ECOTOPE

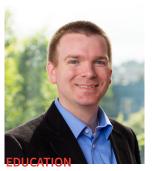
Additional Optional Team Members



Ben Dort, PE

Civil/Structural Architectural Assessor

Ben is a licensed civil engineer with over 15 years of experience in the design of roadways, trails, parks, pedestrian facilities, storm drainage systems, and utilities. As BCRA's lead for Public Works and Parks projects, he is well-versed in ADAAG, WSDOT, AASHTO, PROWAG, and MUTCD standards. Recent work with local municipalities has focused on pedestrian safety and accessibility, expertise he will bring to these projects as well.



BS, Mechanical Engineering, George Fox University

REGISTRATION

Professional Engineer (PE):

Featured Experience

- City of Sumner, On Call Utility Improvements; Sumner, WA
- WSDOT, On Call Architecture & Engineering; Various Locations, WA
- WA DCYF, Green Hill School Hot Water Replacement; Chehalis, WA
- Pierce County Parks, On-Call Trail Improvements; Various Locations, WA
- City of Tacoma, Pedestrian Crossing Improvements; Tacoma, WA
- Kitsap Parks and Rec, South Kitsap Regional Park, Frontage Improvements; Port Orchard, WA



EDUCATION

MPA, Environmental Policy & Economic Development, University of Washington BA, History, Muskingum University

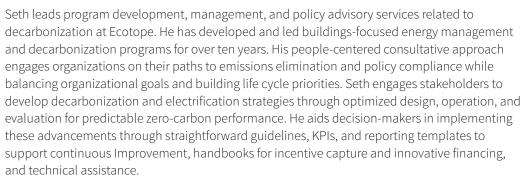
BA, English, Muskingum University

REGISTRATION

Certified Building Operator (CBO)

Seth McKinney, сво

Decarbonization Manager



- City of Redmond, Green Building Program Technical Support; Redmond, WA
- Seattle Public Schools, District Clean Energy and Decarbonization Plan; Seattle, WA
- City of Bellingham, Municipal Portfolio Decarbonization Planning; Bellingham, WA
- City of Seattle, Office of Sustainability and Environment, Clean Buildings Accelerator;
 Seattle, WA



RELEVANT EXPERIENCE

Experience working with public agencies

MENG Analysis has extensive experience performing condition assessments for state, municipal, and local government. The adjacent table lists the most recent FCAs for regional clients.

We understand the importance of making the most efficient use of public funds and promoting proactive asset management to plan properly for future facility improvement expenditures.

MENG Analysis has assessed a wide variety of facilities, including all of the facility types listed in the DES RFP.

Experience working with DES

MENG Analysis has a long-standing professional relationship with DES. We've worked with the agency on many college value engineering, constructibility review, and commissioning projects for more than a decade.

In 2018, we performed a peer review and analysis of the DES Capitol Campus Energy Plan project, working closely with facility and resource conservation staff.

We understand and respect the mission of DES and are excited for the opportunity to continue to support the agency.

MENG Analysis FCA Experience

Agency (*repeat client)	Date	No. of Facilities
City of Sammamish	2023	8
City of Vancouver On-Call	Ongoing	20
City of Kent	Nearly complete	29
City of Arlington	2022	25
City of Camas	2022	10
City of Grants Pass	2022	101
City of Lynnwood*	2023	17
Charles Wright Academy	2022	15
Seattle Girls School/ Bridges Academy	2022	5
Vashon Center for the Performing Arts	2022	2
Chimacum School District*	2021	11
Centrum at Fort Worden	2021	15
Puyallup School District*	2021	60
Clover Park School District*	2020/2015	45
King County*	2021	1
Camas School District	2020	13
Hockinson School District	2020	8
North Central Regional Libraries*	2020	31
City of Everett*	2019	144
Clark County*	2019	80
City of Tacoma*	2018/2016/2010	50
City of Bainbridge Island	2018	20
King County*	2018	10
Ben Franklin Transit	2018	10
City of Kirkland	2018	1
Carnation Farms	2017	41

Specialized State-wide Training Experience

MENG Analysis worked with OFM in 2009-2010 and again in 2015 to perform a specialized condition assessment that aided the state in reviewing various state colleges' and universities' assessment methodologies. These "Comparable Framework" assessments included facility staff at institutions throughout the state. Our team educated the maintenance staff on our assessment methodology if they did not have an existing system. At other schools where there was an established methodology, we benchmarked their existing scoring system to ours to provide decision-making parity to the legislature when they were presented with requests for funding.





MENG

LOCATION/OWNER

City of Everett, WA

DATE COMPLETED

May 2020

ORIGINAL BUDGET /ACTUAL COST

\$197.023/\$197.023

TEAM MEMBERS INVOLVED

Sarah Partap, Timothy Buckley, Doug Smith, Cam Iseri

REFERENCE

Jeff Harris, Assistant Facilities Director, 425.257.8846, JeHarris@everettwa.gov

City of Everett FCA

In 2019, MENG Analysis was hired to complete facility condition assessments of 144 City-owned facilities. The City was in the process of implementing a comprehensive asset management program and required a detailed facility analysis, including energy audit and mechanical equipment inventory. Over nine weeks, our survey team assessed all 144 facilities and documented detailed deficiencies and estimated cost to correct; noted maintenance activities to improve facility longevity; and documented opportunities for improving energy efficiency, user comfort, and safety.

MENG Analysis collaborated with City staff to create extensive, custom reports that presented findings at the department level for maintenance staff use and at the citywide level for Council use.



I am very happy with the final product I received from MENG and will be able to make smart logistical and budgetary decision using this data moving forward. I highly recommend MENG Analysis for anyone looking to get a true, honest and accurate view of the current condition of your buildings and assets"

JEFF HARRIS, ASSISTANT FACILITIES DIRECTOR CITY OF EVERETT



MENALYSIS

LOCATION/OWNER

City of Lynnwood, WA

DATE COMPLETED

January 2023

ORIGINAL BUDGET /ACTUAL COST

\$153,666/\$153,666

TEAM MEMBERS INVOLVED

Sarah Partap, Timothy Buckley, Doug Smith, Cam Iseri

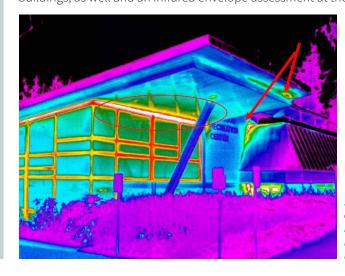
REFERENCE

Marcie MacQuarrie, Fleet, Facilities, Solid Waste and Admin, 425.670.5212, MMacQuarrie@lynnwoodwa.gov

City of Lynnwood FCA

MENG Analysis has worked with the City of Lynnwood on multiple occasions to perform facility condition assessment services. Beginning in 2010, MENG Analysis performed a condition assessment on the maintenance, administration, City Hall, parks maintenance, justice center, library, and Fire Station 14 buildings. The FCA included additional detailed seismic assessment and maintenance scheduling.

In 2021, the City requested MENG Analysis perform a follow up assessment on these facilities, plus the Lynnwood Recreation Center and Public Works shops complex. We also performed and infrared analysis of electrical panels at several buildings, as well and an infrared envelope assessment at the recreation center.



The adjacent image shows thermal anomalies that may indicate a lack of insulation and/or moisture damage.





MENALYSIS

LOCATION/OWNER

City of Grants Pass, OR

DATE COMPLETED

July 2022

ORIGINAL BUDGET /ACTUAL COST

\$371,468 / \$371,468

TEAM MEMBERS INVOLVED

Sarah Partap, Timothy Buckley, Doug Smith, Cam Iseri

REFERENCE

Kyrrha Sevco, Public Works Business Operations Supervisor, 541.450.6113, KSevco@grantspassoregon.gov



MENDO ANALYSIS

LOCATION/OWNER

City of Kent, WA

DATE COMPLETED

2023 (nearly complete)

ORIGINAL BUDGET /ACTUAL COST

\$223,116 / \$223,116

TEAM MEMBERS INVOLVED

Sarah Partap, Timothy Buckley, Doug Smith, Cam Iseri

REFERENCE

Will Moore, Facilities Superintendent, 206.445.3761, wmoore@kentwa.gov

City of Grants Pass FCA

In 2021, the City of Grants Pass Oregon engaged MENG Analysis to perform a condition assessment of 101 facilities across multiple City departments and parks. As part of this assessment, we performed infrared electrical analysis of 10 buildings. The City maintains an extensive network of parks which include play structures, sporting facilities, restrooms, parking areas, trails, bridges, and parking areas which were included in the analysis. Our team documented short-term deficiencies, long-term predictive costs, and opportunities to improve energy efficiency, user experience, and facility longevity.

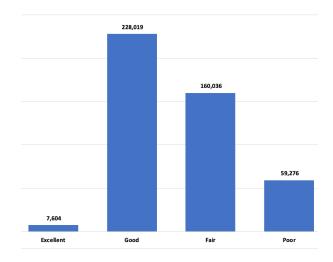
The project concluded in July of 2022 with a formal presentation of findings to the City Council. We continue to offer ongoing support as they implement a new CMMS system.



City of Kent FCA

MENG Analysis worked with the City of Kent to complete a comprehensive FCA and equipment inventory and maintenance plan which included a review of City funding sources and budget scenarios (performed by our subconsultant, FCS Group). Our team assessed 27 buildings on 18 sites.

Through weekly meetings with the facilities management group, the team created a project prioritization tool based on risk and asset categories, that was dynamic based on possible funding scenarios. MENG used the asset inventory to estimate staffing levels needed in HVAC, maintenance, and custodial groups based on various levels of service.





bcra

LOCATION/OWNER

Various Locations, WA / Pierce County Parks and Recreation

DATE COMPLETED

2021-Ongoing

ORIGINAL BUDGET /ACTUAL COST

\$300,000 / N/A (ongoing)

TEAM MEMBERS INVOLVED

Ben Dort

REFERENCE

Benjamin Barrett, Design & Construction Supervisor, 253.798.4081, Benjamin.barrett@piercecountywa.gov

Pierce County On-Call Trail Improvements

BCRA is currently providing on-call trail design, engineering, and construction administration services to Pierce County Parks and Recreation. Active task orders include a culvert replacement and trail repair at the Ashford County Park and pedestrian crossing and regulatory signage improvements on the White River Flume Trail. BCRA is providing trail assessments, civil engineering, landscape architecture, public outreach support, and signage/wayfinding services. By offering a wide spectrum of services to the entire park network across Pierce County, this contract is serving to make the natural resources and beauty of Pierce County accessible to people of all ages and abilities.





b bcra

LOCATION/OWNER

Olympia, WA / Olympia School District

DATE COMPLETED

2017-2019

ORIGINAL BUDGET /ACTUAL COST

\$45M/\$45M

TEAM MEMBERS INVOLVED

Rod Asa, Brandon Bowie

REFERENCE

Kurt Cross, Director, Capital Planning and Construction, 360.596.8565, kcross@osd.wednet.edu

Olympia Elementary School Modernizations

This project involved concurrent full modernizations at three elementary schools in Olympia:

- Centennial Elementary
- McLane Elementary
- Roosevelt Elementary (pictured left)

This complex project required careful phasing so that the schools could remain occupied during construction. The project required extensive condition assessments before design could begin. BCRA participated in the delivery of this project that addressed class size disparities, aging facilities, lack of security, and classrooms that did not accommodate variety in learning and teaching styles.

All three schools opened for students in 2019 and achieved budget and schedule goals.



Options for Seismic Assessment

Our team can provide varying levels of structural and seismic assessment to DES. We understand that the budget is insufficient to perform a Tier II seismic assessment on all 38 buildings listed in the RFP. With this in mind, we will work with DES to identify the highest priority buildings that need to be accessible after a seismic event and/or the buildings that are at the highest risk for structural failure during a seismic event. The following recommendations are based on our experience using the methodology of ASTM E2026-07 Standard Guide for Seismic Risk Assessment of Buildings.

For the most basic approach, an ASTM E2026-07 Level BS0 investigation is performed. This involves reviewing available construction drawings to determine the primary gravity and lateral systems in the facility, or performing visual observations if drawings are not available. We then evaluate the stability of the building based on the building type, era of construction, and improvements that may have occurred. Special consideration is given to unique aspects of the building as well. A report is then developed outlining our findings.

High-level cost-per-square foot estimates are established considering historical data on similar facilities.



The next step in our approach is to complete a review that follows the basis of an ASTM E2026-07 Level BS1 investigation. This includes an ASCE 41-17 Seismic Evaluation and Retrofit of Existing Buildings Tier 1 review for projects identified in the Level BS0 study as having potential concerns. Construction drawings are reviewed in more detail, and Tier 1 checklists are completed to identify potential deficiencies in the global lateral system and detailing of the seismic resisting system. This level of review provides an increased confidence level compared to the Level BS0 approach.

With this level of investigation, high level cost estimates are developed for each specific deficiency.



A third step is to provide a more robust study following the approach of an ASTM E2026-07 Level BS2 investigation. An ASCE 41-17 Tier 2 study is completed, which includes performing more detailed analysis on deficiencies identified in the Tier 1 review. More refined calculations may show that the Tier 1 deficiency is acceptable in its as-built condition, and no repairs are required. If the Tier 1 deficiency is confirmed a clearer understanding of the required repairs is developed.

Finally, more detailed cost estimates are established to provide a clearer understanding of the cost impacts.



Kent, WA / Puget Sound Energy

COMPLETION DATE

2016-2017)

TEAM MEMBERS INVOLVED

Craig Stauffer

REFERENCE

John Boatman, Director of Maintenance and Operations, Clover Park School District (previous MENG Analysis Team Leader), 253.583.7350,

jboatman@cloverpark.k12.wa.us



The South King Complex is a facility composed of four different interconnected buildings that were constructed in the 1960s and 1990s. PCS Structural Solutions completed ASCE 41-13 studies for each building, which varied in size and construction type. The report identified potential deficiencies and provided an approach for recommended mitigation.











Experience as a

MENG Analysis has partnered with PCS Structural Solutions on numerous projects, including many FCA projects over the years. Since 2016, PCS has supported MENG Analysis-led assessments for:

- The Charles Wright Academy in University Place
- Puget Sound Energy South King
- Carnation Farms Facility Condition Assessment
- City of Sammamish Facility Condition Assessment
- Puget Sound Energy I-90 Technology
 Tacoma Venues & Events Condition Assessment

Our strong working relationship allows us to easily work together and leverage PCS's targeted expertise as needed to the benefit of DES.



PAST PERFORMANCE AND APPROACH

MENG Analysis has successfully used the approach described below to achieve and maintain project scope, schedule, and budget for projects similar to the Capitol Campus FCA.

Work Phases

Our approach to this project is structured as five phases. The key tasks within each phase are shown on the following pages.

- Phase II On-Site Facility Condition Assessment
- Phase III Analysis of Facility Condition Assessment Information
- Phase I Facility Assessment Planning and Scheduling Phase IV Facility Condition Assessment Report and Data Dashboard
 - **Phase V** Coordination with CMMS Implementation Team and Follow-Up Support

Phase I - Facility Assessment Planning and Scheduling

- 1. Kickoff Meeting Our team will meet with project stakeholders to establish success criteria and build a collaborative and cohesive team. We will agree on next steps and define project parameters and metrics, ensuring that the entire team understands the scope and requirements for this project. We will work with DES to agree on the method for calculating BMAR, quantifying maintenance backlog, and accounting for escalation and inflation.
- 2. Project Memorandum We will provide a summary memorandum based on decisions made at the kickoff meeting, which presents an overview of the project scope, schedule, and parameters.
- 3. Facility Data Gathering Questionnaires are sent to Facilities and Maintenance staff to gather as much data about each facility as possible. The information that is available is very beneficial for understanding not only when capital renewal projects have occurred in the past, but also to identify any known issues and concerns we can investigate when in the field. This data will be augmented with information gained from standardized interviews with key facility occupants and/or maintenance staff.
- **4. Methodology Training –** We will share our assessment standards with DES so you can self-perform future assessments. DES staff are invited to accompany the assessment teams as much as possible to observe the process in action. We will offer additional follow up support and training as needed under Phase V
- 5. Pilot Assessment Together with DES staff, we will select one of the facilities to be the pilot. The purpose of the pilot assessment is for maintenance personnel and our field surveyors to work together in the field to see what will be needed during the on-site assessments. We will produce a pilot report which includes short and long-term cost estimates, equipment register, and summary of findings. If needed, we can adjust reporting parameters before moving on to the remaining facility assessments.







Scheduling Assessments

Based on the size and age of the buildings included in this scope, we anticipate needing 28 days on-site to perform the assessments. With two survey teams, we will accomplish the on-site in approximately 5 weeks. We typically spend 3-4 days each week in the field, with one day reserved for setup for the week ahead and facility staff interviews. We also build several makeup days into the schedule in case buildings are unexpectedly not available for assessment, or take longer than anticipated.



Phase II - On-Site Facility Condition Assessment

- **6. Facility Condition Assessment Data Collection –** After completion of the pilot assessment, our team will conduct the onsite assessments of all scoped facilities and parks to document conditions, deficiencies, and asset information.
- **7. Maintainable Equipment Inventory –** We will record make, model, and serial number of all accessible major maintainable equipment to populate a high-level maintenance schedule which is included in the data dashboard.



Assessment Process

- Our highly trained team begins by reviewing the site and the building exterior in a clockwise direction.
- Upon entering the facility, we begin at the roof level and work down through the space in a clockwise direction. This method eliminates the risk of overlooking any areas.
- We will verify access to the roof and locked spaces before working on-site.
- We will document each deficiency with a photograph and rough order of magnitude cost estimate for the suggested remediation.

Timothy Buckley from MENG Analysis identifies a building envelope issue.

Phase III - Analysis of Facility Condition Assessment Information

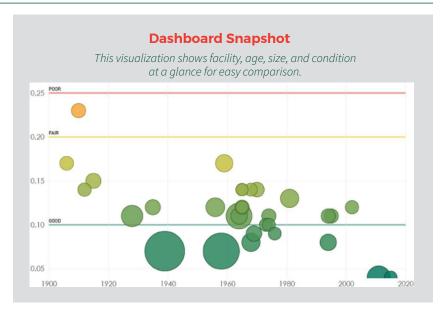
- **8. Facility Data Consolidation and Costing** After the surveyors complete the on-site assessments, our data manager and project manager review their data for completeness and consistency. Once all the write-ups are complete, our cost estimator will compile the costs for one-time repair and rehabilitation costs (observed deficiencies) and create the financial models to populate the long-term capital cost estimates and facility replacement values.
- **9. Prioritization Workshop** We will present the condition data to the DES team and work together to confirm priorities and suggested future projects.



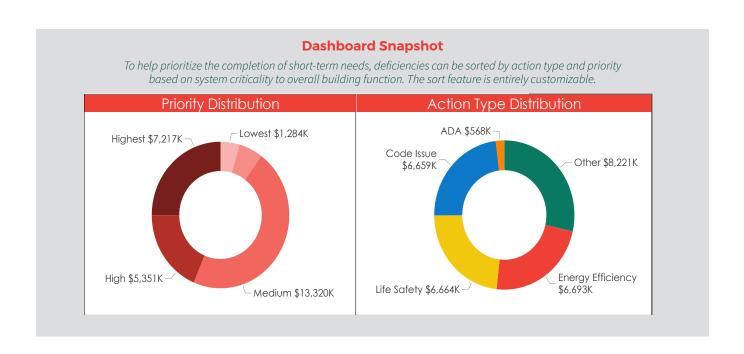
Phase IV - Facility Condition Assessment Report and Tool

- **10. Draft FCA Report –** We will organize all condition data, photos, deficiency cost estimates, and long-term maintenance cost estimates by location, type, and facility priority or other identified parameters and present draft reports to the DES for review.
- 11. Post-Draft Review Meeting After the DES has had time to review the draft reports, our team will meet with staff to listen to comments, suggested edits, and answer questions. After the review period, we will incorporate feedback into the final documents.
- **12. Final Report Presentation –** We will present the findings of the condition assessment in a series of formal presentations to project stakeholders and provide DES with electronic final deliverable.

provide DES with electronic final deliverables, including:



- An Executive Summary Report of DES-wide facility conditions and long-term maintenance cost projections, including a prioritized plan for suggested expenditures.
- A Facility Detail Report with subsystem-level condition scores and deficiencies with cost estimates for each building.
- **13. Data Visualization Tool** Toward the conclusion of the project, we will provide a customized data visualization dashboard to DES. With this tool, project data can be easily sorted and grouped to create customized tables and charts for reports. We will complete a user training via Zoom, which allows us to record the meeting for DES to reference at a later date.







Phase V - Coordination with CMMS Implementation Team & Follow-Up Support

14. Implementation Support and Follow-Up Tasks TBD – When a CMMS system is selected (separate project) our team will work with DES and the selected vendor to facilitate the transmittal of condition data. As DES moves forward in the budgeting process, we will continue to support the team as needed. This may include, additional presentations, staff training, reorganizing project priorities, preparing custom graphics, and similar support tasks.

PROJECT SCHEDULE

MENG Analysis' proposed preliminary schedule is shown in the table below, demonstrating our ability to perform the work within the desired schedule, assuming a August 2023 start date and February 2024 final presentation date. Each of the key points in this schedule is discussed in detail in the approach section.

PHASE	2023-2024							
	AUG	SEP	ОСТ	NOV	DEC	JAN	FEB	MAR - BEYOND
Phase I – Facility Assessment Planning and Scheduling	1-4	5						
Phase II – On-Site Facility Condition Assessment			6-7					
Phase III - Analysis of FCA Information				8	9			
Phase IV – FCA Report and Tool						10 11	12 13	14

^{*}Phase V – Coordination with CMMS Implementation Team & Follow-Up Support will occur throughout the project at key points to be determined. Once the vendor and system are selected, we will define specific tasks and schedule them with DES and the selected vendor.

Task Activities

- 1. Kickoff meeting
- 2. Project memorandum
- 3. Facility data review & questionnaires
- 4. Energy data review
- 5. Pilot assessment

- 6. FCA data collection
- 7. Maintainable equipment inventory
- 8. Facility data consolidation and costing
- 9. Prioritization workshop
- 10. Draft FCA report

- 11. Post-draft review meeting
- 12. Final report presentation
- 13. Data visualization tool training
- 14. Implementation support and follow-up tasks TBD



DIVERSE BUSINESS INCLUSION STRATEGIES

MENG Analysis is always open to partnering with diverse business entities. If any specialized additional services arise as this project progresses, we will make every effort to include small, minority, women, and veteran-owned businesses.

- MENG Analysis is a self-certified SBE by federal SBA size standards
- PCS is a self-certified SBE by federal SBA size standards

